Therapist Fidelity to Contrasting Psychological Treatments for Young People at Ultra-High Risk of Developing Psychosis

Katrina Louise Bell

B Sc. (Psychology) University of Newcastle

Doctor of Clinical Psychology

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Statement of Originality

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Abstract

Background: It has been demonstrated recently that it is possible to identify individuals suffering from ‘at-risk mental states’ (ARMS) who, in the absence of treatment, are likely to develop a psychotic disorder within a year. This increase in detection ability has increased confidence that preventative interventions in psychotic disorders are a realistic proposition in clinical settings. Only three randomised controlled trials of interventions for the at-risk population have been published to date, with promising results. Two of them suggest that it is possible to prevent, or at least delay, transition to psychosis utilising Cognitive Behavioural Therapy (CBT). However, these trials have not adequately addressed treatment fidelity which is vital in allowing accurate and valid conclusions to be drawn from treatment outcome research.

Method: The Detection, Evaluation and Psychological Therapy (DEPTh) project, a single blind randomised controlled trial, was designed to compare the effectiveness of CBT and a control psychotherapy, Non Directive Reflective Listening (NDRL), in ameliorating ARMS and delaying or preventing transition to psychosis. Treatment fidelity (adherence and competence) to both interventions was assessed using three established measures: The Cognitive Therapy Scale: CTS; The Cognitive Therapy for Psychosis Scale: CTS-Psy; and the Working Alliance Inventory Shortened Observer Rated Version: WAI-O-S. In addition, a new measure, the Cognitive Therapy for At Risk Populations Adherence Scale (CTARPAS) was developed, piloted and revised by the investigator and colleagues to rate therapist adherence to the French and Morrison (2004) model of cognitive therapy for individuals at high risk of developing psychosis that was used to guide the CBT intervention in the DEPTh project. 55 sessions (35 of the
CBT intervention and 23 of the NDRL intervention) from a total of 21 participants were rated for fidelity.

**Results:** The agreement between two independent raters was very high on most of the items of the CTARPAS, CTS, CTS-Psy and the WAI-O-S, for both the CBT and the NDRL interventions. Therapists delivering the CBT intervention had low mean scores on the CTARPAS which was most likely due to participants rarely discussing psychotic or attenuated psychotic symptoms. Therapists delivering the CBT intervention were rated as highly competent on the CTS. Therapists delivering the NDRL intervention were rated as adherent and competent. There were significant variations in CTARPAS ratings in the CBT intervention over the stages of therapy (early, middle and late), but there was no variation in ratings on any other measure in either intervention over the stages of therapy. High correlations were found between the CTS and the CTS-Psy.

**Discussion:** This was the first study to investigate treatment fidelity in a randomised controlled trial of CBT and a control psychotherapy for the at-risk population. A new measure, the CTARPAS, was developed and used in this study and has the potential to be utilised in future investigations. The overall results from this study add significantly to the knowledge base in the field of indicated prevention and highlight the importance of treatment fidelity in treatment outcome research.
Therapist Fidelity to Contrasting Psychological Treatments for Young People at Ultra-High Risk of Developing Psychosis

Over the last 15 years interest, debate and research has been increasing into early detection and intervention for psychosis. It has been well established that most psychotic disorders are preceded by a prodromal period, that is, a period of time when an individual experiences a functional decline prior to the experience of frank psychotic symptoms (Yung & McGorry, 1996). Most individuals experience psychotic symptoms for a period of time (from weeks to years) before they seek treatment (Compton, McGlashan, & McGorry, 2007). The length of time between the onset of psychosis and the subsequent detection, diagnosis and commencement of treatment has been termed the Duration of Untreated Psychosis (DUP), and is considered a treatment lag (French & Morrison, 2004; Norman & Malla, 2001). The median length of DUP has been found to be approximately one year (Barnes et al., 2000). A number of studies, including two recent meta-analyses, have found that a longer DUP is associated negatively with prognosis and recovery, even when multiple possible confounding variables are controlled, and can significantly impact on an individual’s psychological and social development (Loebel et al., 1992; Marshall et al., 2005; Perkins, Gu, Boteva, & Lieberman, 2005). The combination of these findings thus implies that if the DUP could be minimised for individuals then it would most likely lead to more positive outcomes for them.
1.1 The prodromal period of psychosis

From a preventative viewpoint learning more about the prodromal period of psychosis is very important. If the prodrome could be detected prospectively then treatment could be provided at an earlier stage and the course of illness and the disability suffered by individuals may be altered and potentially ameliorated (Yung & McGorry, 1996). However detection is not clear or straightforward as prodromal symptoms are non-specific (for example, depression, anxiety, and social withdrawal), thus detection prospectively is likely to be associated with a high false-positive rate, that is, not all individuals who may be experiencing prodromal symptoms will make the transition to a psychotic disorder (Yung & McGorry, 1996). As the prodrome can only be identified conclusively after the actual onset of psychosis, many researchers use the term ‘At-Risk Mental States’ (ARMS) instead when referring to this period of time (Compton et al., 2007). ARMS are considered to be mental states that confer a high, but not inevitable risk of developing a psychotic disorder in the near future (Yung & McGorry, 1996).

1.2 Identification of individuals ‘at-risk’ for psychosis

Researchers and clinicians at the Personal Assessment and Crisis Evaluation (PACE) Clinic (affiliated with the ORYGEN Youth Health Service, formerly the Early Psychosis Prevention and Intervention Centre: EPPIC) in Melbourne, Australia have conducted significant research into developing reliable criteria to aid in the identification of individuals at ultra high risk (UHR) of developing a psychotic disorder. Yung et al. (1996) used a ‘close-in’ strategy
which involved combining a number of primarily symptom and family history measures to condense the level of risk and at the same time to reduce the number of false positives (Bechdolf et al., 2006). An individual’s age was found to be highly significant and is one of the main criteria; the majority of individuals develop psychosis between the ages of 14 and 30 (Yung et al., 1996). Yung et al. (1996) defined three sets of operationalised criteria for the identification of ARMS among young treatment seekers as: (1) ‘Vulnerability’ group: individuals who have a first degree relative with a psychotic disorder or who themselves have a schizotypal personality disorder, and who have experienced a significant decrease in functioning in the past year; (2) ‘Attenuated Psychosis’ group: individuals who have experienced sub-threshold, attenuated positive psychotic symptoms in the past year; and, (3) ‘Brief Limited Intermittent Psychotic Symptoms’ (BLIPS) group: individuals who have experienced episodes of frank psychotic symptoms that have not lasted longer than a week and have spontaneously resolved. To aid in the identification and quantification of prodromal symptoms and these ARMS groups the PACE researchers developed a semi-structured interview tool that they termed the Comprehensive Assessment of At Risk Mental States (CAARMS; Yung et al., 2001). The Scale of Prodromal Symptoms (SOPS) and the Structured Interview for Prodromal Symptoms (SIPS) are similar and have been developed by other researchers to diagnose and rate the severity of prodromal states (Miller et al., 2003).

Yung et al. (1996) demonstrated that using these ARMS criteria over 34% of individuals who fulfilled them developed a psychotic disorder within six
months of referral. Within 12 months of referral Yung et al. (1996) found that between 35% and 40% of individuals had developed a psychotic disorder. Other studies such as that by Mason et al. (2004), using the same ARMS criteria, reported a rate of transition of 50% at two years and Miller et al. (2003), using similar criteria (but differing methods of assessment), reported rates of 46% at six months and 54% at 12 months. These rates are several thousand-fold higher than the expected incidence rate for first-episode psychosis in the general population (Yung et al., 2007). However, more recent studies into the predictive validity of ARMS criteria have shown more modest conversion rates to psychosis. Yung et al. (2007) reported recent data from the PACE clinic as a six month transition rate of only 9.2%. Other recent studies have reported transition rates in the 20% to 35% range, over similar time intervals (Cornblatt et al., 2003; Haroun, Dunn, Haroun & Cadenhead, 2006; Yung et al., 2006). Yung et al. (2007) investigated possible causes for this reduction in transition rate at the PACE clinic between the years 1995 and 2000. This study found that the decreased transition rate was partly due to a reduction in the duration of symptoms of UHR individuals prior to receiving assistance from PACE. UHR individuals were being identified and provided with care earlier than in the past. Yung et al. (2007) concluded that the decline in transition rate may be possibly due to treatment being more effective in the early stage of illness or due to the identification of more false positives who were not at risk of psychosis.

As detailed above, there has been an increase in detection ability for the prodromal period of psychosis, a potential window of time prior to the onset of
psychosis that can be identified. This has increased confidence that preventative interventions in psychotic disorders may be a realistic proposition in clinical settings and research into interventions that may be able to delay or prevent the emergence of psychosis is gaining momentum. Even if complete prevention is unattainable, delaying the onset of psychosis could have a significant impact on reducing the psychosocial disability, distress and disruption associated with psychosis, and in the attendant costs to health services and the population in general. Ideally, an intervention with little side effects that can address the wide range of symptoms that are present in the prodrome would be the ideal option. These goals have lead researchers towards considering the use of a psychological intervention in this population.

1.3 Cognitive Behaviour Therapy

Cognitive Behaviour Therapy (CBT) has been well established as an efficacious intervention for psychosis. A meta-analysis by Zimmerman, Favrod, Trieu, and Pomini (2005) of 14 studies of CBT for psychosis conducted between 1990 and 2004 concluded that CBT showed significant benefits in reducing the positive symptoms of psychosis. Pilling et al. (2002) reviewed randomised controlled trials for psychosis in which CBT had been compared with either standard care or other active interventions and concluded that, “CBT produced higher rates of important improvement in mental state and demonstrated positive effects on continuous measures of mental state at follow-up” (p. 763). Based on the data from their meta-analysis of randomised controlled CBT trials for
psychosis, Rector and Beck (2001) even suggested that not to provide CBT for psychosis would be unethical. The accumulation of this body of evidence supports CBT as an efficacious intervention for both acute and chronic psychosis (Gould, Mueser, Bolton, Mays, & Goff, 2001; Kuipers et al., 1997; Sensky et al., 2000; Startup, Jackson, & Bendix, 2004; Tarrier et al., 1998). CBT is now also included in the Australian, United Kingdom and United States National Guidelines for best practice in the treatment of schizophrenia and is being increasingly utilised across clinical services internationally (American Psychiatric Association; APA, 2004).

Building on these findings there is an emerging and growing evidence base for the effectiveness of CBT for individuals with first-episode psychosis (e.g. Penn, Waldheter, Perkins, Mueser, & Lieberman, 2005) and in recent years there has been increased interest in investigating the effectiveness of CBT for preventative interventions in psychotic disorders. To date, results of three randomised controlled trials of interventions for the at-risk population have been published, with promising results suggesting possible prevention or delay of conversion to psychosis.

The first randomised trial was conducted at the PACE clinic in Melbourne, Australia, between 1996 and 1999. This trial compared the outcome of ‘ultra high risk’ (UHR) individuals who received a combination of a low dose atypical antipsychotic medication (up to 2mg Risperidone) plus CBT (n=31) with UHR individuals who received supportive psychotherapy only (n=28; McGorry et al., 2002). Treatment was provided for six months with a follow-up assessment
conducted six months later. At the conclusion of treatment, 36% of individuals assigned to the control treatment had progressed to first-episode psychosis compared with 10% of individuals who had received CBT and pharmacotherapy, this being a significant difference (McGorry et al., 2002). However, at six month follow-up the difference between these two groups was no longer significant. Individuals who were adherent to medication were significantly less likely to develop psychosis over the entire follow-up period compared to individuals in the control group (McGorry et al., 2002). Individuals in both conditions reported symptom improvement at the completion of the follow-up phase (McGorry et al., 2002). The major design limitations of this study were the inability to assess the specific contributions of the combined pharmacotherapy treatment and the CBT and that it was not blinded. However, this research provided the first promising evidence that it might be possible to delay (prevalence reduction) and possibly even avert the transition to psychosis in young UHR individuals (McGorry et al., 2002). Phillips et al. (2007) followed up 69.5% of the participating individuals from this trial three to four years after its completion. At this medium-term follow-up no significant differences were found in transition rate, level of symptomatology or functioning between the two groups (Phillips et al., 2007).

The second randomised trial was the PRIME (Prevention through Risk Identification Management and Education) study which was conducted at four sites: Yale University, America; the University of North Carolina, America; the University of Toronto, Canada; and Foothills Hospital, Calgary, Alberta, Canada. This study was a double-blind, randomised, parallel-group, placebo-controlled
trial that compared UHR individuals receiving 12 months treatment with an anti-psychotic medication (5-15mg Olanzapine, n=31) with UHR individuals receiving 12 months of placebo treatment (n=29; McGlashan et al., 2003). At the completion of the treatment phase, 16% of the pharmacotherapy group had converted to psychosis and 38% of the placebo group, this difference being significant when allowing for adjustment for baseline severity of positive prodromal symptoms (McGlashan et al., 2003). These results were consistent with the findings from the PACE clinic in Australia. At follow-up 12 months later there was no significant difference in rates of conversion to psychosis between the two groups (McGlashan et al., 2004).

The third randomised trial was the Early Detection and Intervention Evaluation (EDIE) project, a joint collaboration between the Bolton, Salford, and Trafford Mental Health Partnership and the University of Manchester in the United Kingdom. The aim of this project was to investigate whether the use of psychological intervention alone could prevent transition to psychosis. The EDIE project was a single blind randomised controlled trial with UHR individuals being assigned to either a maximum of 26 cognitive therapy (CT) sessions (n=37) during a six month period, or to monthly follow-up assessments (n=23) during the same time period (Morrison et al., 2004). The CT intervention in the EDIE project was based on Morrison’s (2001) cognitive model of psychosis and therapists were guided by French and Morrison’s (2004) formulation-based intervention in regards to the content of their sessions. The CT was formulation driven, and was specifically designed for preventing transition to psychosis amongst young UHR
individuals. Interventions were based on shared individualised formulations and therapist’s encouraged collaborative empiricism, used guided discovery, and recommended homework (Morrison et al., 2004). Sessions were regularly supervised, but no measure of formal treatment fidelity was employed. At the completion of the treatment phase 6% of individuals who received CT developed a psychotic disorder compared to 22% of individuals who received monthly follow-up (Morrison et al., 2004). This difference remained significant at six-month follow-up, suggesting that the CT intervention was effective in reducing transition to psychosis over a 12-month period with UHR individuals (Morrison et al., 2004). Logistic regression demonstrated that the CT intervention significantly reduced the likelihood of progression to psychosis over 12 months and analysis of covariance demonstrated that the CT intervention also significantly improved the sub-clinical positive symptoms of psychosis over 12 months (Morrison et al., 2004). The main design limitation of this study was that the control condition merely involved systematic monitoring, thus Morrison et al. (2004) were unable to definitively conclude what specific aspect of the CT intervention was responsible for the observed results. Morrison et al. (2007) followed up 47% of participating individuals after three years and logistic regression demonstrated that being in the CT group significantly reduced the likelihood of being prescribed anti-psychotic medication over a three-year period but was not associated with a reduced risk for transition to full psychosis according to CAARMS criteria. However, exploratory analyses showed that being in the CT group significantly reduced the likelihood of transition to psychosis over three years after controlling for baseline cognitive factors (Morrison et al., 2007). Due to the small initial
sample size and high rate of attrition (53%) over the three-year period these findings need to be interpreted with caution. However, as Cannon, Cornblatt and McGorry (2007) discuss, these findings are important as they suggest that six months of treatment with a relatively low risk, cost-effective intervention, such as CBT, is associated with a reduction in severity of illness and perhaps even a reduced likelihood of illness progression.

The combined results of these three randomised controlled trials suggest that CBT alone may be at least as effective as antipsychotic medication, and may be even more effective, in delaying or preventing conversion to psychosis. There are several important issues associated with using antipsychotic medication in a young UHR population. As McGorry et al. (2002) recognise, the risks of false positive assessments of UHR individuals is high, adherence to medication within this population is variable, side-effects of antipsychotic medication can be harmful and stigmatising, and there exist a number of ethical concerns with the use of antipsychotic medications with young individuals who have yet to develop a psychotic disorder. In addition, the International Early Psychosis Association (IEPA; 2005) guidelines recommend that psychopharmacology is not indicated in this population. The risks and side-effects associated with a psychosocial intervention, such as CBT, are significantly less than those associated with antipsychotic medication. Also compelling is the predominance of mood-related symptoms in the psychotic prodrome and CBT has been found to be a highly effective treatment for both depression and anxiety (Birchwood, 1996; Clark, 1999; Hollon, DeRubeis, & Evans, 1996). Morrison et al. (2004) also argue that
CBT is well suited for use with young UHR individuals due to its demonstrated effectiveness for many other problems that are often present in this population, such as relationship difficulties, substance abuse, vocational difficulties, and concerns about the self, in addition to it being shown to be effective in alleviating psychotic symptoms (Pilling et al., 2002). Thus, CBT has the potential to provide important therapeutic benefits even to individuals who were not destined to develop psychotic disorders.

Overall, CBT, an intervention that is not associated with harmful side effects, is gaining interest as an effective and acceptable alternative intervention to antipsychotic medication with young UHR individuals and requires further investigation. However, the findings from the PACE (McGorry et al., 2002) and the EDIE (Morrison et al., 2004) trials would have been enhanced if they had provided an adequate assessment of treatment fidelity. Having no assessment of treatment fidelity limits the strength and capacity of these trials in determining what specific components of the CBT intervention are related to the therapeutic changes observed. Thus, a current gap in this research area is that there have been no systematic studies of treatment fidelity when conducting CBT interventions with a young UHR population to ensure that the intervention is being delivered as intended by the researchers.
1.4 Treatment fidelity

Treatment fidelity (also known as treatment integrity) refers to the degree to which a treatment is implemented as intended and its ability to be differentiated from other approaches (Perepletchikova & Kazdin, 2005). Treatment fidelity specifically refers to three components: therapist adherence; therapist competence; and treatment differentiation (Moncher & Prinz, 1991; Perepletchikova & Kazdin, 2005; Waltz, Addis, Koerner, & Jacobsen, 1993). The demonstration and verification of treatment fidelity is of primary importance in clinical trials as interventions must be successfully implemented before any accurate, meaningful and valid interpretations of outcome can be made (Barber, Sharpless, Klostermann, & McCarthy, 2007; Moncher & Prinz, 1991). To be able to interpret and understand the impact of a delivered treatment intervention requires knowledge that the treatment was delivered as intended, that is, to determine if the independent variable – the treatment – has been successfully manipulated (Waltz et al., 1993). As Alvarez-Jimenez et al. (2008) further recognise, establishing treatment fidelity is essential in determining what specific aspects or components of an intervention under investigation are being implemented, and thus contributing to therapeutic change and/or outcome. So, the investigation of treatment fidelity allows provision of information about how interventions are implemented specifically, which provides an increased understanding of the change mechanisms underpinning interventions such as CBT (Rollinson et al., 2008; Waltz et al., 1993). If treatment fidelity is not assessed in clinical research it is difficult to make any firm conclusions about intervention effects or their absence. The assessment of treatment fidelity also allows a clearer differentiation
to be made between specific therapeutic interventions and can assist in the interpretation of varied outcomes with what are purportedly the same or similar interventions (Rollinson et al., 2008). Additionally, the assessment of treatment fidelity allows for: more accurate cross-site comparisons to be made; training and supervision of therapists to be better informed through dissemination of research findings; accurate revision of interventions for future research, and statistical power and effect size to be increased by reducing random and unintended variability in clinical trials (Waltz et al., 1993; Moncher & Prinz, 1991).

Failure to ensure treatment fidelity poses significant threats to the internal, external, construct and statistical conclusion validity of clinical trial research (Perepletchikova, Treat, & Kazdin, 2007). Internal validity can be threatened if information concerning the implementation of treatment interventions are not available or treatment fidelity is low (Perepletchikova, 2006). This makes the interpretation of the results ambiguous, as if a treatment was not delivered as planned then it is impossible to establish which manipulation (the intervention or other alternative factors) impacted on the dependent measures (Perepletchikova, 2006). Lack of or low treatment fidelity can make it difficult to replicate a study and thus evaluate its external validity as findings from a study are unable to be generalised if it is not known what was exactly implemented on the dependent variable, as other factors may have significantly impacted on the dependent variable other than the intervention. Low treatment fidelity also makes it difficult to make valid inferences about the obtained effect from a study (Perepletchikova, 2006). When an intervention is not delivered as intended, the construct validity of
the study is compromised. Without an assessment of treatment fidelity it is impossible to draw inferences about what parts of the treatment were provided and to what degree (Perepletchikova et al., 2007). When a treatment is not delivered as intended, statistical conclusion validity can be compromised, due to unsystematic error being introduced into the data (Perepletchikova, 2006). This increases the within-group variability, reduces the obtained effect size and reduces statistical power, thus reducing the likelihood of detecting the effect (Perepletchikova et al., 2007). In sum, the enhancement of treatment fidelity increases internal, external and construct validity; thus failure to ensure treatment fidelity compromises the experimental validity of clinical trial research (Borrelli et al., 2005; Moncher & Prinz, 1991; Perepletchikova & Kazdin, 2005).

Although the methodological necessity of treatment fidelity has been long recognised, and evidence of it is fast becoming a requirement for clinical treatment intervention research, few studies adequately implement independent and rigorous treatment fidelity procedures (Perepletchikova et al., 2007; Rollinson et al., 2008). As Perepletchikova et al. (2007) recognise, regardless of the level of treatment fidelity in a study, neglecting to report procedures for the implementation of treatment fidelity makes conclusions about treatment efficacy ambiguous, as it is unknown to what extent the study’s results may be affected by low treatment fidelity. Perepletchikova et al. (2007), in their review of randomised controlled trials of psychosocial interventions in six influential psychological and psychiatric journals, found that only 3.5% of the evaluated investigations adequately addressed treatment fidelity. In regards to research into the efficacy of
CBT for schizophrenia, Kuipers et al. (1997) and Haddock et al. (1999) conducted peer supervision sessions between expert therapists in their trials to ensure adherence to the treatment manual but no formal assessment was undertaken to assess whether this was effective. Tarrier et al. (1998) had an independent rater discriminate between CBT and supportive counselling in a sample of sessions from their trial, but they assessed neither adherence nor competence. The assessment of treatment fidelity in Sensky et al’s (2000) randomised controlled trial of manualised CBT versus a non-specific Befriending control intervention for schizophrenia was more systematic. Independent raters assessed a representative sample of audio recorded therapy sessions from both forms of intervention for therapist competence using the Cognitive Therapy Scale. Thus these examples are not evidence of adequate treatment fidelity and, in relation to published randomised controlled trials of CBT for psychosis, Startup, Jackson, and Pearce (2002) argued that none had adequately addressed issues of fidelity.

1.5 Procedures for the establishment of treatment fidelity

Multiple recommendations have been provided in the literature on how to successfully implement treatment fidelity procedures (Carroll & Nuro, 2002; Waltz et al., 1993). However, as Waltz et al. (1993) recognise, many protocols and tools for assessing treatment fidelity have been used but there is no widely accepted methodology and there has been little consistency across studies. Waltz et al. (1993) further recognise that the majority of methods that have been utilised have many problems that impact on what can be derived from the results, such as
methods not allowing the determination about whether the intervention was competently performed, and so, despite adequate therapist adherence, it is unknown whether the intervention was delivered in a competent manner (Waltz et al., 1993).

Perepletchikova et al. (2007) divide the recommendations in the current literature into four domains: establishing, assessing, evaluating, and reporting fidelity. Treatment fidelity should be established by the use of treatment manuals, therapist training, and therapist supervision. Maintaining treatment fidelity is more likely with direct training methods, such as, role-playing, rehearsal, and feedback (Sterling-Turner, Watson, & Moore, 2002). Ongoing supervision should be provided to therapists to ensure the accuracy of the treatment implementation and to reduce therapeutic drift (Waltz et al., 1993). Treatment fidelity should be assessed using direct observation (audio or video recordings of sessions) and psychometrically sound measures, and should encompass all three aspects of its specification, therapist adherence, therapist competence and treatment differentiation (Waltz et al., 1993). The evaluation of treatment fidelity includes procedures such as ensuring the accuracy of the obtained data, training of raters, assessing inter rater reliability, and controlling for measure reactivity (Bhar & Beck, in press; Perepletchikova et al., 2007; Perepletchikova & Kazdin, 2005). Treatment fidelity should be reported in terms of overall fidelity, component fidelity, and session fidelity. Overall fidelity refers to the fidelity of treatment components across sessions (Perepletchikova et al., 2007). Component fidelity refers to the fidelity of implementing each treatment component across sessions.
and session fidelity refers to the fidelity of all treatment components within each session (Perepletchikova et al., 2007). Numerical data on adherence and competence should adequately describe the level of treatment fidelity.

1.6 Therapist adherence

The first component of treatment fidelity is therapist adherence. Therapist adherence represents the quantitative aspect of treatment fidelity and refers to the extent to which a therapist implements interventions and approaches prescribed by the treatment manual, and avoids the use of proscribed interventions (Perepletchikova et al., 2007; Waltz et al., 1993). Adherence is conceptualised as including treatment behaviours that are: (a) unique and essential; (b) essential but not unique; (c) neither unique nor essential; and (d) proscribed (Waltz et al., 1993). As Barber et al. (2007) recognise, therapists engaging in high levels of these first two components would equate to good levels of adherence. Barber et al. (2007) view adherence as context-independent knowledge, that is, that one knows how to intervene and one can actually do so.

Therapist adherence assumes the existence of detailed and specific treatment intervention guidelines for the therapist to follow or a treatment manual. The term guidelines refers to general principles of a particular therapy intervention that are described in detail, although therapists are still directed to use their clinical judgement and their conceptualisation of the client to flexibly chose what precise techniques to engage in during therapy and when to engage in them.
The term *manual*, by contrast, refers to specific principles of a particular intervention where the precise contents of each session are determined in advance. During the past three decades there has been an increased trend towards the development of treatment intervention manuals in psychotherapy. The increased usage of treatment manuals has resulted in particular therapies becoming more pure and their techniques being delivered more accurately and consistently (Waltz et al., 1993). Initially spurred by research concerns, the shift from general theoretical guidelines for interventions to increasingly systematic and specified manualised interventions has also gained increased momentum in response to public policy pressure for evidence-based practice (Miller & Binder, 2002). When considering therapist adherence to a manual, the assumption is that the therapist adheres to the treatment outlined in the manual at some minimum level before an inference can be made that the intended treatment was delivered.

Therapist adherence to a treatment can be assessed by utilising rating scales designed to measure the extent to which the therapist implements prescribed procedures as detailed in a manual or specific guidelines (Shapiro & Startup, 1992). The simplest method of assessing therapist adherence is to employ a checklist of required techniques for the intervention being investigated and rating the occurrence or non-occurrence of techniques that are prescribed and proscribed in the intervention guidelines or manual (Waltz et al., 1993). Various scales have been devised to measure therapist adherence with the most highly developed of these measures being the Collaborative Study Psychotherapy Rating Scale (CSPRS; Evans, Piasecki, Kriss, & Hollon, 1984) which was developed for
the Treatment of Depression Collaborative Research Program (TDCRP; Elkin et al., 1989). The CSPRS has been revised six times to yield the present ninety-six item version. The CSPRS was designed to measure therapist adherence to manualised specific components of CBT, interpersonal therapy (IPT), and clinical management (CM), in addition to the non-specific variables of facilitative conditions and directiveness (Hill, O’Grady, & Elkin, 1992). Rather than being a simple checklist of presence versus absence, the CSPRS adherence rating method involves trained raters listening to entire audio recorded treatment sessions, making notes, and then rating the therapist on the extent, that is, the frequency and intensity, with which they engaged in the behaviours prescribed by the specific treatment modality. Psychometrically, the CSPRS was able to differentiate between the TDCRP treatment modalities, and the inter-rater reliability and internal consistency for the CSPRS were high and acceptable (Hill et al., 1992). Therapists in the training phase and in the treatment phase of the TDRCP were found to exhibit more behaviours relevant to their respective treatment intervention than to the other modalities and the three treatment modalities could be discriminated almost perfectly using the CSPRS (Hill et al., 1992).

Several other therapist adherence measures have utilised aspects of the CSPRS methodology in their development. The CSPRS was adapted by Shapiro and Startup (1990) in the development of the Sheffield Psychotherapy Rating Scale (SPRS). The SPRS was designed to measure treatment fidelity in the Second Sheffield Psychotherapy Project (SPP2), a comparative outcome study comparing prescriptive and exploratory psychotherapies (Shapiro, Barkham,
Hardy, & Morrison, 1990). Prescriptive therapy is a multimodal cognitive behavioural treatment which is similar to cognitive therapy, and exploratory therapy is a psychodynamic/experiential method with an interpersonal focus (Startup & Shapiro, 1993b). In the SPP2 the same therapists delivered the two contrasting forms of psychotherapy, which was a different method compared to other preceding comparative outcome studies. Startup and Shapiro (1993b) wanted to be able to distinguish the specific contribution of the treatment intervention from that of the individual therapist by controlling therapist traits (e.g. demographic characteristics, personality and level of training/experience). In the SPP2, trained raters listened to entire audio recorded sessions of therapy and assessed the therapists’ adherence to the treatment modality under observation. The SPRS was found to have acceptable inter-rater reliability within and between treatment modalities (Startup & Shapiro, 1993b). Importantly, discriminant analysis showed that the treatments could be differentiated almost perfectly, even though the same therapists delivered both modalities (Startup & Shapiro, 1993b).

Startup et al. (2002) developed the Cognitive Therapy for Psychosis Adherence Scale (CTPAS) as a measure of adherence in CBT for psychosis as part of the North Wales trial of CBT for acute schizophrenia-spectrum disorders (Startup et al., 2004). Specific items of the CTPAS are based on ideal therapist behaviours described in the manual published by Fowler, Garety, and Kuipers (1995). The CTPAS measures 12 therapeutic behaviours/activities that are considered core components of the intervention, with the frequency of each item within a session being rated on a seven point scale. The CTPAS measures four of
the six core components of the Fowler et al. (1995) therapy manual: ‘Facilitating adaptive strategies to cope with psychotic symptoms’; ‘Developing an understanding of psychosis in collaboration with the client’; ‘Modifying delusional beliefs and beliefs about voices’ and, ‘Relapse prevention and the management of social disability’ (Startup et al., 2002). To measure therapist adherence to this intervention trained raters listened to audio recordings of entire therapy sessions and rated the therapist using the CTPAS. Psychometric analysis of the CTPAS yielded moderate internal consistency and adequate inter-rater reliability for most of the individual items (Startup et al., 2002).

The CTPAS was revised by Rollinson et al. (2008) and is now referred to as the Revised Cognitive Therapy for Psychosis Adherence Scale (R-CTPAS). This scale was utilised in the Psychological Prevention of Relapse in Psychosis (PRP) trial (Garety et al., 2008). The R-CTPAS is a 21 item scale that was developed by David Fowler and the PRP trial therapists. The R-CTPAS was designed to be completed by self-report by the actual therapist following a session, or used as an observer rated measure after listening to entire audio recorded therapy sessions. A measure of therapist competence was also incorporated in the R-CTPAS which asks the actual therapist or an observer to evaluate whether each therapist activity was performed in a way that was ‘matched’ to the individual client, ‘individualised’ to the client’s specific difficulties, and ‘collaboratively’ undertaken (Rollinson et al., 2008). Each item is first rated for frequency on a one to seven point scale and then the rater evaluates
whether the therapy activity meets the minimal competence criteria specified within the manual (Rollinson et al., 2008). In effect the R-CTPAS mainly assesses adherence but also competence to some extent.

1.7 Therapist competence

The second component of treatment fidelity is therapist competence. Therapist competence is a complex concept and there is no established consensus on what actually constitutes competence. Waltz et al. (1993) refer to it as the “level of skill… [that is] …the extent to which the therapists conducting the interventions took the relevant aspects of the therapeutic context into account and responded to those contextual variables appropriately”. Thus, competence is context dependent and requires the therapist to understand when and how to intervene and when not to do so (Barber et al., 2007). Waltz et al. (1993) view the therapeutic context as including client variables, such as, degree of impairment, the individual problems of the client, the life situation and life stress of the client, and factors such as therapy stage and sensitivity to the timing of interventions within therapy sessions. Shaw et al. (1999) view therapist competence as referring to the skillfulness of the therapist in providing a therapeutic milieu, in being able to conceptualise the client’s distress and problems within a specific intervention framework, and being able to apply techniques specific to this intervention which are consistent with the treatment goals.
In general terms, competence represents the qualitative aspect of treatment fidelity, that is, how well or skillfully prescribed interventions are implemented by therapists (Perepletchikova et al., 2007). Barber et al. (2007) discuss competence within a psychotherapy context as possessing two meanings, global competency and limited-domain competency. Global competency refers to a therapist being able to appropriately and independently manage a number of clinical problems and still be able to help clients realise their treatment goals. Limited-domain competency is viewed as a subset of global competence, that is, expressed within the context of a specific intervention modality, and refers to a therapist being able to be flexible and use their clinical judgment in their implementation and non-implementation of a specific therapeutic intervention (Barber et al., 2007).

Therapist competence should not be assumed on the basis of experience and training but should be independently verified by assessing how sensitively a therapist applied an intervention with an individual client (Perepletchikova et al., 2007). In assessing competence, researchers have focused less on general skills and global competency and more on limited-domain competency. Evaluations of competence are normally made by expert raters who assess the therapist’s behaviour and activities within the context of a specific intervention modality (Shaw et al., 1999). Expert raters are required for assessing competence as only an expert in a specific area can make decisions about what are the optimal intervention techniques and the timing of such techniques (Dobson & Singer, 2005). Thus, assessing competence requires carefully trained raters to systematically review therapy sessions and consider whether the therapist has
competently and appropriately delivered specific intervention techniques. The assessment of competence differs from the assessment of adherence in that it is more challenging and practically more time consuming (McGlinchey & Dobson, 2003).

The most widely used and established measure of general competence in CBT is the Cognitive Therapy Scale (CTS; Young & Beck, 1980, see Appendix A). The CTS has been widely used to evaluate the competence of therapists delivering CBT with a range of disorders, most notably depression. The Academy of Cognitive Therapy, a multidisciplinary certifying organisation, uses the CTS as a primary measure for certifying clinicians in cognitive therapy (Sudak, Beck, & Wright, 1993). The CTS has been used to assess competence in CBT for psychosis (e.g. Sensky et al., 2000) but has not so far been used in assessing competence for CBT in an at-risk population. The CTS comprises 11 items that are rated by an observer during and after reviewing a single entire therapy session that has been audio or video recorded. To adequately and effectively utilise the CTS the rater needs a sound knowledge of CBT principles and practice as it requires varying degrees of inference for particular item variables (Gordon, 2006). The CTS uses a qualitative rating of skill in each domain on an anchored seven point scale (0-6) with definitions at alternate points. The measure is divided into two subscales – the ‘General Therapeutic Skills’ subscale and the ‘Conceptualisation, Strategy, and Technique’ subscale. The General Therapeutic Skills subscale is considered to measure general therapy skills that are not unique to CBT whereas the Conceptualisation, Strategy, and Technique subscale is
designed to rate behaviours that are considered to be unique to CBT. Psychometrically the CTS has been shown to have high internal consistency and moderate inter-rater reliability (Dobson, Shaw, & Vallis, 1985; Vallis, Shaw, & Dobson, 1986). Vallis et al. (1986) found the CTS to be highly homogeneous and a scale that can be used to provide an assessment of therapist performance when therapists follow a cognitive therapy protocol.

Haddock et al. (2001) adapted the CTS and developed the Cognitive Therapy Scale for Psychosis (CTS-Psy, see Appendix B) supposedly in order to allow for the differences that are encountered when working with individuals with psychosis and to reflect the way CBT has been adapted and developed for use with psychosis. CBT for psychosis has a number of significant differences from CBT for non-psychotic disorders, including differences in format, process and content as well as in the regulation of the psychological processes targeted by the intervention (Haddock et al., 2001). One of the biggest differences is in content; CBT for psychosis requires therapists to address their client’s psychotic symptoms and assist them in developing a shared understanding of the nature of their psychotic disorder (Startup et al., 2002). Additionally, individuals with psychosis often have problems in the regulation of attention and arousal, and in the processing of social cues, problems which require a different approach being adopted by therapists when working therapeutically with them (Gordon, 2006; Haddock et al., 2001). The CTS-Psy was designed to allow for these and other differences from standard CBT. The CTS-Psy consists of 10 items separated into two subscales – the ‘General Skills’ subscale and the ‘Specific Skills’ subscale.
Although the CTS-Psy is clearly modeled closely on the CTS, it has an altered scaling system (Gordon, 2006). Instead of a qualitative rating of each skill in each domain on a 0-6 point scale as in the CTS, the CTS-Psy uses a checklist of six micro-skills within each domain, each of which is allocated one point. Items are rated on a seven point checklist from 0 to 6 where a higher score of observed behaviours indicates a greater competency. The rater rates each of these sub-items as present, absent, or appropriately omitted in the session under review. This method was chosen to enhance reliability, by turning a subjective rating into a series of behavioural observations, and can thus be used by non experts in CBT (Gordon, 2006). Haddock et al. (2001) demonstrated that the CTS-Psy is easy to use, reliable and has the ability to distinguish between different therapist skill levels. High inter-rater reliability was demonstrated with overall scores and for each of the two subscales (Haddock et al., 2001). Haddock et al. (2001) found that the majority of individual items have good inter-rater reliability and raters were shown to be able to reliably discriminate between specific therapy skills and general competence.

1.8 Differentiation, adherence and competence

The third and final component of treatment fidelity is treatment differentiation. Treatment differentiation simply refers to whether treatments under investigation differ from each other along critical dimensions and can be distinguished from one another in their implementation (for example, implementing procedures prescribed by the intervention guidelines or manual for
treatment A and avoiding procedures prescribed for treatment B and vice versa: Dobson & Singer, 2005; Perepletchikova, 2006; Perepletchikova & Kazdin, 2005).

Therapist adherence and treatment differentiation are closely related due to a measure of adherence commonly being sufficient for determining whether two treatments are distinct from each other (Perepletchikova et al., 2007; Waltz et al., 1993). However, it is also realised that two treatments could be differentiated perfectly without either of these treatments being administered adherently. The relationship between adherence and competence is less clear and it appears that they are not mutually exclusive. A particular treatment must be adherently delivered for it to be competently administered (Dobson & Singer, 2005). However, although adherence to a specific treatment is a necessary precondition to competence, it does not ensure that the treatment is being conducted in a competent manner (McGlinchey & Dobson, 2003; Perepletchikova et al., 2007). Further, even if a therapist is adherent to a treatment, it can be delivered in a manner which is incompetent, which then negatively affects the validity of interpretations derived from the outcome. And finally, two treatments may be able to be differentiated from one another but one or both may not have been delivered competently (Dobson & Singer, 2005). Overall, a breakdown in any of the components of treatment fidelity, that is, adherence, competence and differentiation, has the potential to compromise treatment fidelity.
1.9 Treatment fidelity and outcome

A sizeable number of studies have examined the association between treatment fidelity and outcome, in a variety of research settings and with a variety of clinical populations, but the results remain mixed. The majority of studies investigating the link between treatment fidelity and outcome have commonly focused on adherence and competence independently.

The many studies that have examined the association between adherence and outcome, mostly by utilising observational coding methods, have found varied results. Some studies have found that greater adherence predicts better outcome (e.g. Frank, Kupfer, Wagner, McEachran, & Cornes, 1991; Hogue et al., 2008; Huey, Henggeler, Brondino, & Pickrel, 2000) whereas other studies have concluded that greater adherence leads to the therapist being rigid and over-relying on technique when following a manual, which undermines outcome (e.g. Castonguay, Goldfried, Wiser, Raue, & Hayes, 1996). Fewer studies have examined the link between competence and outcome, and the findings from these studies have also been inconsistent (Hogue et al., 2008). For example, Barber, Crits-Christoph and Luborsky (1996) and Shaw et al. (1999) found moderate effects of competence on outcome in their research, whereas Barber et al. (2006) found no effect.
1.10 Rationale for the present study

As discussed earlier, recent advances in the accurate identification of individuals at ultra high risk of developing psychosis have added momentum and inspiration to the concept of indicated prevention in this field. However, to date, results of only three randomised controlled trials of such interventions have been published. Although the results of these three trials have shown that there are interventions that are able to delay the onset of psychosis, and in some cases may even prevent psychosis, it is unclear which treatment is preferable for this population due to the three trials having assessed, respectively, a combination of anti-psychotic medication and CBT (McGorry et al., 2002), CBT alone (Morrison et al., 2004), and anti-psychotic medication alone (McGlashan et al., 2003). Since the trial of CBT alone produced results that were at least as favourable as the two other trials, and considering the ethical and clinical objections concerning the use of anti-psychotic medications with young individuals who have yet to develop a psychotic disorder and may never do so, CBT may be the preferred treatment.

1.11 The Detection, Evaluation and Psychological Therapy (DEPTh) project

The Detection, Evaluation and Psychological Therapy (DEPTh) project (Australian Clinical Trials Registry, Number ACTRN012606000101583) aims to investigate whether the previous favourable results for CBT can be independently replicated. The DEPTh project was modeled on the EDIE project in the UK and the form of CBT that is being utilised follows that employed in the EDIE project (Morrison et al., 2004). There is currently a second EDIE project (EDIE-II)
project underway in the UK and investigators on both these projects have collaborated with each other. In comparison to the EDIE project the DEPTh project has several design enhancements. These enhancements include: the inclusion of a control treatment to control for non-specific treatment effects; Motivational Interviewing (MI) and CBT for problematic substance use (Hides, Baker, Bucci, Kay-Lambkin, & Cohen, 2006) are to be included when indicated; Dialectical Behavioural Therapy (DBT; Linehan, 1993) techniques to enhance affect regulation are included with CBT when indicated; the treatments are provided by several therapists, thus allowing therapist effects to be analysed and the transferability of the treatment to be tested (the majority of the therapy in the EDIE project was delivered by a single therapist); and two treatment sites to allow comparison of outcomes between urban and rural settings. The major design enhancement in the DEPTh project is that it will assess treatment fidelity to both treatment conditions thus ensuring that treatments are implemented as intended and in a competent manner so that accurate, meaningful and valid determinations of outcome can be made from this project.

The DEPTh project is a single-blind randomised controlled trial being conducted in Newcastle, Australia over a two year period. The project is funded by a National Health and Medical Research Council (NHMRC) grant which commenced in May 2006. The Hunter New England Area Health Service (HNEAHS) Human Research Ethics Committee approved the DEPTh project on the twenty third of February 2006 with the reference number of 05/12/07/3. The DEPTh project was designed to compare the effectiveness of CBT and a control
psychotherapy, Non Directive Reflective Listening (NDRL), in ameliorating prodromal states and delaying or preventing transition to psychosis among young individuals at risk of psychosis. It is expected that fewer individuals who receive CBT will develop levels of psychotic symptoms above a predetermined severity threshold and will survive longer below such a threshold. It is also expected that individuals who receive CBT will have more favorable outcomes in terms of symptom severity, social functioning, and quality of life whether or not they satisfy criteria for a transition to psychosis during the course of the project. The DEPTh project is being conducted at two different treatment sites, one urban and one rural. The urban site is in Newcastle, NSW, at the Psychological Assistance Service (PAS). PAS, a division of the HNEAHS, was established in 1997 as a clinical service modeled on the PACE clinic in Melbourne, Victoria. The service’s primary function is to identify young individuals at-risk of psychosis rather than those with an already established psychotic illness. From the service’s inception PAS staff have established a wide network that refers young individuals who have a high likelihood of meeting PAS’ selection criteria and, at regular intervals thereafter, staff have actively engaged potential referral sources to provide information about PAS, its purpose, mode of operation and selection criteria to maintain links within their referral network. DEPTh participants will be PAS clients residing within the Hunter area who consent to participate in the project. The rural site of the DEPTh project is in Orange, NSW, at the Centre for Remote and Rural Mental Health (CRRMH). The CRRMH is a service that was established in 2001 as an initiative of the NSW Department of Health through the University of Newcastle. The CRRMH has developed strong working
relationships with clinicians for clinical research, service delivery, and service
development across the breadth of rural NSW. DEPTh participants will be
CRRMH clients residing within a 170km radius of Orange who consent to
participate in the project.

1.12 The French and Morrison approach to CBT

The form of CBT that is being delivered in the DEPTh project, and which
was also utilised in the EDIE project, was developed by French and Morrison
(2004). They developed a CBT intervention that they tailored for use with
individuals who are at-risk of developing psychosis. Their approach is detailed in
their book, ‘Early Detection and Cognitive Therapy for People at High Risk of
Developing Psychosis’ and is a formulation-based approach that guides therapists
in working with this population rather than a formal prescriptive treatment manual
(French & Morrison, 2004). Working to a manual with a young at-risk population
would not be feasible due to the wide range of concerns that this population
presents with. French and Morrison’s (2004) book contains information on
assessment, formulation and change strategies, examples of interventions and
model responses for therapists (French & Morrison, 2004). The general structure
and principles of standard CBT are still advocated in this approach, such as it
being structured, time-limited and problem-orientated, involving collaborative
empiricism and Socratic questioning, and incorporating activities such as agenda
setting and homework (Beck, Rush, Shaw, & Emery, 1979; Beck, 1995).
However, their approach to CBT is primarily based on Morrison’s (2001)
cognitive model of the development and maintenance of psychosis. In addition, apart from CBT their approach is also influenced by the anxiety disorder literature (e.g. Wells, 1997; Wells, 2000) due to the similarity between the processes involved in the development and maintenance of distress in relation to psychotic experiences and those similarly present in anxiety disorders, such as misinterpretations and selective attention.

Morrison’s (2001) cognitive model of the development and maintenance of psychosis focuses on the culturally unacceptable interpretations that individuals with psychosis make for events and their response to these events. Morrison (2001) views the initial onset of psychotic symptoms as being closely related to the individual’s inability to generate alternative culturally acceptable explanations for internal and/or external experiences. Morrison (2001) posits that this is often due to the individual lacking a network of supportive social relationships that could help in normalising these culturally unacceptable interpretations for the individual (French & Morrison, 2004). The model highlights the importance of individuals’ beliefs about the self, world, and others, as well as metacognitive beliefs, including positive beliefs about their psychotic experiences (Morrison, 2001). The model also focuses on the unhelpful cognitive responses and maintenance processes, that were initially identified in models of emotional disorders (e.g. Clark, 1986; Wells & Matthews, 1994), such as, selective attention, safety behaviours designed to prevent feared outcomes, thought control strategies, and avoidance, that help to maintain an individual’s distress associated with psychotic interpretations.
The intervention is individualised for each client and is based on a case conceptualisation that is derived from the cognitive model most suited to the client’s identified problems that have been prioritised by them on a problem list. This case formulation is developed collaboratively between the therapist and the client in the early stages of therapy and is then used as a working hypothesis throughout therapy, and in guiding the selection of specific treatment strategies (Bechdolf et al., 2006). If a transient or attenuated psychotic symptom is prioritised, the case conceptualisation is based on Morrison’s (2001) model of the development and maintenance of psychosis. In this instance, the therapist would aim to: normalise the interpretations that the client is making; assist the client in generating and evaluating alternative explanations; decatastrophise the client’s fears about mental health; and help the client to test out new appraisals via behavioural experiments. Common treatment strategies may include consideration of the advantages and disadvantages of holding a particular belief, or the examination of metacognitive beliefs about thoughts, beliefs and psychotic-like phenomena, and behavioural experiments to test such beliefs. Therapy would conclude with the development of a relapse prevention plan which identifies the strategies that the client found helpful, and how to implement those strategies independently in the future if required (French & Morrison, 2004). However, if an anxiety disorder is the problem prioritised, the case conceptualisation would be based on Wells’ (1997) model of anxiety, for example.

French and Morrison’s (2004) approach aims to be flexible in its application, in the sense that therapists are encouraged to adjust, as far as possible,
the conditions under which therapy is offered in order to engage and maintain clients in therapy. Overall, the aim of French and Morrison’s (2004) intervention is distress reduction and increasing the client’s quality of life, rather than the reduction of psychotic experiences.

1.13 The Cognitive Therapy for At Risk Populations Adherence Scale

To be able to adequately assess therapist adherence to French and Morrison's (2004) CBT intervention for at-risk individuals that is being delivered in the DEPTh project, there was a need to adapt existing adherence scales with the additional knowledge of what has been found to be efficacious in the at-risk population, and to develop a new scale reflecting this knowledge. This need resulted in the development of the Cognitive Therapy for At Risk Populations Adherence Scale (CTARPAS; see Appendix C) and its accompanying Raters' Manual (see Appendix D).

The CTARPAS is a nine item scale that was designed and developed for the primary purpose of rating therapist adherence to the French and Morrison (2004) CBT intervention that is being used in the DEPTh project. It was developed by the investigator, her supervisor CI Startup and colleagues involved in the EDIE-II project. The CTARPAS is also being used in the EDIE-II project. The CTARPAS is a blend of items that have been primarily modelled on the CSPRS-6 (Evans et al., 1984), which was developed in the SPR Project within the
context of the NIMH Treatment of Depression Collaborative Research Program (TDCRP; Elkin et al., 1989), and also includes modifications introduced in the CTPAS-R (Rollinson et al., 2008).

The scale is designed to be completed by raters after listening to an entire therapy session via an audio or video recording. Raters are not required to have a special or expert knowledge of the behaviours being measured by the scale in order to rate the items. The scale was specifically designed so that raters with no previous exposure to the therapeutic modality being rated by the scale could reliably and validly rate the therapist behaviours which occur. The CTARPAS Raters' manual was designed to provide the background needed in order to rate the items. The raters' manual which accompanies the CTARPAS explains the basis for rating each of the nine items specifically and it is deemed essential that raters are familiar with the material in the Raters' Manual before they make ratings on the scale. For more specific detail on the CTARPAS and its accompanying Raters’ Manual please refer to the Method chapter of this thesis.

The nine CTARPAS items follow the nine strategies that French and Morrison (2004) detail in their intervention. For more specific information regarding these please refer to their book. The CTARPAS items are rated on two scales of adherence and frequency. Table 1 outlines the CTARPAS items and the descriptions associated with each of them.
<table>
<thead>
<tr>
<th>Specific Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Problem list and goals</td>
<td>Did the therapist work collaboratively with the client to develop a shared set of clearly defined problems and goals?</td>
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<tr>
<td>2. Formulation work</td>
<td>Did the therapist work with the client to develop a shared psychological understanding of the nature of the client’s experiences?</td>
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<tr>
<td>3. Normalising</td>
<td>Did the therapists help the client to recognise that his/her schizotypal experiences are similar to the experiences of individuals who do not have psychological disorders?</td>
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<tr>
<td>4. Generating and evaluating alternative explanations</td>
<td>Did the therapist help the client to explore alternative explanations for his/her psychotic like experiences besides the client’s initial explanations for these events?</td>
</tr>
<tr>
<td>5. Safety behaviours</td>
<td>Did the therapist help the client to identify any safety behaviours he/she was employing? Did the therapist spend time educating the client about the role of safety behaviours in maintaining problematic beliefs? Did the therapist help the client to organise experiments to test the usefulness of safety behaviours?</td>
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<tr>
<td>6. Metacognitive beliefs</td>
<td>Did the therapist help the client identify and explore their beliefs about their thoughts, images and feelings (metacognitions)?</td>
</tr>
<tr>
<td>7. ‘I am different’ and other core beliefs</td>
<td>Did the therapist aid the client to identify relevant core beliefs and explore modifications of these beliefs if necessary?</td>
</tr>
<tr>
<td>8. Social isolation</td>
<td>Did the therapist identify the client’s support network and explore what options they had for generating external alternative explanations for their experiences via seeking advice from others?</td>
</tr>
<tr>
<td>9. Relapse prevention</td>
<td>Did the therapist help the client to generate a personalised relapse prevention plan including early warning signs and interventions aimed at reducing any possible catastrophic interpretations of these emerging symptoms?</td>
</tr>
</tbody>
</table>

1.14 **Non Directive Reflective Listening (NDRL)**

The control condition of the DEPTh project is a NDRL intervention (Sellman, Sullivan, Dore, Adamson, & MacEwan, 2001). This intervention is described in detail in Sellman, Sullivan and Dore’s (1995) manual. NDRL is a form of person-centred counselling in which, within a therapeutic setting, the therapist offers empathic reflections whilst adopting a stance of genuineness, congruence and unconditional positive regard (Sellman et al., 1995). Empathic
reflection is used non-contingently and thus not used to specifically focus on
behaviour changes. In this intervention clients are invited to discuss any topics
they wish to talk about, not necessarily issues related to at-risk mental states, and
the direction of content throughout the sessions is determined by the client.
Therapists deliberately avoid providing any interpretations or directions. The
NDRL intervention is intended to control for non-specific facilitative conditions.
For more detail regarding this intervention please refer to the Method chapter of
this thesis.

1.15 Working alliance

It is generally accepted that the therapeutic alliance is critical to success in
all types of psychotherapy (Andrusyna, Tang, DeRubeis, & Luborsky, 2001). A
meta analysis by Horvath and Symonds (1991) found a strong correlation between
alliance and treatment outcome, and a more recent meta-analysis by Martin,
Gaske and Davis (2000) found a consistent relationship between alliance and
outcome across seventy nine studies. Although the importance of alliance is
generally accepted, the definition of the construct varies greatly. One well-
supported definition is provided by Bordin (1979) who described the alliance as
consisting of three related components: 1) client and therapist agreement on the
goals, or desired outcomes, of treatment; 2) client and therapist agreement on the
tasks of therapy, how to achieve these goals; and 3) the development of a personal
bond between the therapist and client. This conceptualisation of alliance implies a
factor structure characterised by one general alliance factor and three secondary factors, each corresponding to one of the components, that is, goal, task and bond (Andrusyna et al., 2001).

Horvath and Greenberg (1989) developed the Working Alliance Inventory (WAI) to measure Bordin’s (1979) integrative model of alliance. They developed client-, therapist-, and independent- observer-rated versions of the WAI to allow measurement of the alliance from different perspectives. Each version of the WAI is designed to yield three alliance scales corresponding to Bordin’s (1979) three aspects of the alliance: the agreement on goals, agreement on tasks and the bond between the therapist and the client. Horvath and Greenberg’s (1989) goals in creating the WAI were to: measure alliance factors in all forms of therapy; document the relationship between the alliance measure and the theoretical constructs underlying the measure; and, to link the alliance measure to a general theory of therapeutic change. Martin et al.’s (2000) meta-analysis concluded that the WAI is likely to be appropriate for most research projects. The WAI Observer-rated – Short form version (WAI-O-S; Horvath, 1991, see Appendix E) was utilised in the DEPTh project.

1.16 Treatment fidelity and the DEPTh project

To assess overall treatment fidelity in the DEPTh project, measures of adherence and competence were utilised by the investigator (and initially CI
Startup for piloting and reliability purposes) when listening to entire audio recordings of sessions.

In relation to the CBT intervention, therapist adherence will be measured by the CTARPAS and therapist competence will be measured by both the CTS and the CTS-Psy. Both the CTS and CTS-Psy were utilised due to the CTS requiring a higher level of knowledge and understanding regarding CBT as it requires the rater to make judgements about the quality of the therapist’s activities and behaviours. The CTS-Psy, by contrast, guides the rater on what therapist activities and behaviours to be alert to and it only requires recognition that given therapist activities and behaviours were employed. Thus, the CTS is a more expert scale than the CTS-Psy. Even though the CTS-Psy was designed to be used specifically for clients with psychosis its content does not explicitly focus on psychosis, in actuality none of the micros-skills within each item are explicit about psychotic symptoms. This opinion matches Startup et al.’s (2002). Both the CTS and the CTS-Psy were utilised as there have been no direct comparisons between them in previous studies and it was thought that this would be interesting to investigate correlations between them. In relation to the NDRL intervention, the items of ‘Understanding’ and ‘Interpersonal effectiveness’ on both the CTS and the CTS-Psy were used to assess both adherence and competence. For the purposes of this study these two items will be combined together and referred to as the ‘Facilitative Conditions’ subscale on both the CTS and the CTS-Psy. Finally, the alliance in both the CBT and the NDRL interventions were measured by the WAI-O-S.
1.17 Aims of the present study

The aims of the present study are as follows:

1) To develop, pilot and utilise an adherence scale to assess adherence to the French and Morrison (2004) CBT intervention being used in the DEPTh project.
2) To rate treatment fidelity of the interventions (CBT and NDRL) in the DEPTh project utilising a combination of established and new measures.

3) To investigate the effect of a number of independent variables on treatment fidelity, such as ARMS group, stage of therapy, participant gender and age, therapist effects and urban versus rural location.

4) To investigate the correlations between ratings on the CTS and the CTS-Psy for therapists delivering the CBT intervention.

1.18 Hypotheses of the present study

The hypotheses of the present study are as follows:

1) It is hypothesised that there will be a high level of agreement between the investigator and her supervisor on all measures utilised.
2) It is hypothesised that therapists will be adherent to the intervention that they are delivering, either CBT or NDRL. Therapists delivering the CBT intervention should receive high ratings on the CTARPAS. Therapists delivering the NDRL intervention should receive no ratings on the CTARPAS.

3) It is hypothesised that the CBT and NDRL interventions will be able to be discriminated perfectly from each other.

4) It is hypothesised that there will be significant differences between the therapist ratings in the CBT and NDRL interventions on the CTS ‘General Therapeutic Skills’ and ‘Conceptualisation, Strategy and Technique’ subscales as well as on the CTS-Psy ‘General Skills’ and ‘Specific Skills’ subscales. It is hypothesised that therapists delivering the NDRL intervention will be rated highly on the Facilitative Conditions subscale of both the CTS and the CTS-Psy and receive ratings of zero on all of the other items of these scales. It is hypothesised that therapists delivering the CBT intervention will also be rated highly on the Facilitative Conditions subscale of both the CTS and the CTS-Psy, as well as on the other items on these scales. It is also expected that there will be no significant difference between the CBT and NDRL intervention therapist ratings on the Facilitative Conditions subscale. Despite these two therapy models being significantly different in certain aspects of their application they also share, as most therapy models do, a number of common techniques. Central to the fostering of a therapeutic relationship between a therapist and a client are the common factors of understanding and interpersonal effectiveness.
5) It is hypothesised that specific therapist activities in the CBT intervention will vary over the stages of treatment and this be reflected in CTARPAS ratings. As Startup and Shapiro (1993a) found in their research involving the dimensionality of CBT, the stage of therapy accounted for a highly significant proportion of the variance in each of the subscales on the adherence measure they were using – the CSPRS. For example, ratings for the behavioural focus/homework factor were at their highest in the early sessions and then declined through the rest of the treatment stages (Startup & Shapiro, 1993a). This effect of stage of therapy should be reflected in the ratings on the CTARPAS for therapists delivering CBT. It is hypothesised that in both the CBT and NDRL interventions that ratings will not vary according to stage of therapy on the CTS and the CTS-Psy. For the CBT intervention each of the items being measured on the CTS and the CTS-Psy should be present in each CBT session and for the NDRL intervention there should be no significant variability on the Facilitative Conditions subscale as again each of these two items should be present in every NDRL session.

6) It is hypothesised that there will be some variation in WAI-O-S ratings for both interventions over the stages of therapy since the development of an alliance between therapists and their clients takes time. It is expected that ratings on the Bond subscale will increase as therapy progresses and that there will be no significant difference between therapist ratings for the CBT and NDRL interventions on this subscale. However, it is expected that therapists delivering the CBT intervention will be rated higher on the subscales of Task and Goal in comparison to therapists delivering the NDRL intervention. It is expected that the
‘Conceptualisation, Strategy and Technique’ subscale of the CTS will correlate highly with the Task and Goal subscales of the WAI-O-S, and that the ‘General Therapeutic Skills’ subscale of the CTS will correlate highly with the Bond subscale of the WAI-O-S. It is expected that the Facilitative Conditions subscale of the CTS for both conditions will correlate highly with all of the WAI-O-S subscales, in particular the Bond subscale.
2.1 Participants

Referred individuals were eligible for inclusion in the DEPTh project if they were: (1) aged between 12 to 30 years; (2) resided within the boundaries of the HNEAHS catchment area (estimated population of 850,000), which is approximately 160km from Sydney, NSW, or were CRRMH clients and resided within a 170km radius of Orange (estimated population of 350,000), which is approximately 240km from Sydney, NSW; and (3) met criteria for one or more of three ARMS groups. These three ARMS groups were operationally defined as follows:

Group A (Vulnerability Group): A combination of a first-degree relative with a history of any psychotic disorder, or the individual meets DSM-IV criteria for a diagnosis of schizotypal personality disorder, and any change in mental state or functioning which has resulted in a loss of at least 30 per cent on the Global Assessment of Functioning (GAF) Scale within the last year and maintained for at least one month.

Group B (Attenuated Psychosis Group): The individual has developed symptoms (unusual thought content, non-bizarre ideas, perceptual abnormalities, and/or disorganised speech) which do not reach threshold levels for psychosis due to sub threshold intensity (the symptoms are not severe enough). These symptoms have to have occurred for at least one week or on more than two occasions (and experienced a minimum of four times in total). Alternatively, the individual has had psychotic symptoms but at a sub threshold frequency (the symptoms do not
occur often enough). The symptoms have to have been present within the last year, in addition to any change in mental state or functioning which has resulted in a loss of at least 30 per cent on the GAF scale within the last year and maintained for at least one month.

Group C (BLIPS Group): The individual has a recent history of frank psychotic symptoms (unusual thought content, non-bizarre ideas, perceptual abnormalities, and/or disorganised speech) that resolved spontaneously (without antipsychotic medication) within one week during the previous year. In addition a change in mental state or functioning which has resulted in a loss of at least 30 per cent on the GAF scale within the last year and maintained for at least one month has to have also occurred.

Individuals were excluded from the DEPTh project if they: (1) met criteria for a past or current DSM-IV psychotic disorder; (2) had previously been prescribed anti-psychotic medication at therapeutic doses for more than one week; (3) had an organic mental disorder or intellectual disability; (4) were at serious suicidal or homicidal risk (they were eligible for inclusion once this risk had resolved); or (5) had an inadequate command of the English language.

Prior to commencement of the study it was initially predicted that 28 urban individuals and 11 rural individuals would consent to be involved in the DEPTh project each year, thus totaling 78 participants over the two year period of recruitment. However, recruitment was much slower than expected and there were
difficulties in gaining consent for recordings of sessions, particularly with the rural participants.

During the time period of this research (the DEPTh project was still underway when the investigator completed data collection) 25 individuals had consented to participate in the DEPTh study and consented to their therapy sessions being audio recorded (19 urban and six rural participants). 13 additional participants (one urban and 12 rural) participated in the project during this time but did not consent to recordings and thus could not be included in this research.

Four participants dropped out of the study after the first session of treatment and of the remaining 21 participants, 12 were female (57%) and nine were male (43%). Their ages ranged from 14 to 26. 17 participants (81%) were not using antidepressant medication and four participants (19%) were. One participant met criteria for both Groups A and B. Three participants met criteria for Group A, 14 participants for Group B and three participants for Group C.

2.2 Interventions

2.2.1 CBT

The CBT intervention followed that employed by French and Morrison (2004) and colleagues in the EDIE trial. The CBT interventions were tailored to address the identified problems of each participant using shared formulations and
therapists encouraged collaborative empiricism, used guided discovery and recommended homework.

French and Morrison’s (2004) form of CBT differs from standard traditional CBT models in that it is designed specifically for preventing transition to psychosis among young at-risk individuals. In particular, it draws upon Morrison’s (2001) model of the onset and development of psychotic symptoms. This model guides therapists to focus on the client’s interpretations of their experienced mental intrusions and implicates the cultural unacceptability of these interpretations in determining whether an individual is considered to be psychotic (Morrison, 2001). According to this model the initial onset of psychotic symptoms is related to an inability to generate alternative, culturally acceptable explanations for these intrusions, frequently due to a lack of trusting, supportive social relationships that would facilitate the normalisation of such interpretations (Morrison, 2001). The formulations that the therapists offered depended upon the client’s presenting problems. For example, if full or attenuated psychotic symptoms were prioritised, then the therapists would encourage the client to conceptualise these problems according to Morrison’s (2001) model. However, if the problems prioritised by the client concerned anxiety symptoms or depressed mood then evidence-based alternative models were adopted. For example, if anxiety was the prioritised problem than therapists would be guided by Wells’ (1997) metacognitive therapy for anxiety disorders. If the prioritised problem was depression than therapists would be guided by Beck et al. (1979), and if the prioritised problem was one of emotional dysregulation than therapists would be
guided by Linehan (1993). Problems of substance use and/or dependence were addressed with motivational interviewing (MI) and CBT techniques developed by CI Baker and AI Bucci (2004) for substance problems among individuals with psychoses (Hides et al., 2006).

2.2.2 NDRL

The NDRL intervention followed that employed as a control condition by Sellman et al. (2001), as described in Sellman et al.’s (1995) manual. NDRL consists of a form of person-centred counselling in which, within a therapeutic setting, the therapist offers empathic reflections whilst adopting a stance of genuineness, congruence and unconditional positive regard (Sellman et al., 1995). Empathic reflection is used non-contingently and thus not used to specifically focus on behaviour changes. Clients were invited to discuss any topics they wished to talk about, not necessarily issues related to at-risk mental states, and the direction of content throughout the sessions was determined by the client. Therapists deliberately avoided providing any interpretations or directions.

The standard opening phrase employed by therapists at the beginning of a session was “What would you like to talk about today?” or “Where would you like to start today?” (Sellman et al., 1995). The most common technique utilised was empathic reflection. Open-ended questions were used sparingly, mostly in order to maintain a therapeutic relationship when there were uncomfortable silences or when the client was unsure how to proceed (Sellman et al., 1995).
Reflective listening was used to ‘stay with’ clients as they led the process of therapy. This technique assisted the therapist in keeping on track with the line of discussion being taken by the client, and to check that the therapist has understood what the client had said, as well as conveying to the client that the therapist was attentive to their thoughts and feelings (Sellman et al., 1995). Closed questions were only used to clarify information, thus assisting with accurate empathy. If the client became ‘stuck’ the therapist empathised with them rather than offering advice or suggestions, and probes were only used sparingly (Sellman et al., 1995).

2.2.3 Standard Care (SC)

All participants were offered anti-depressant medication, benzodiazepines for insomnia, and casework, according to need, but no anti-psychotic medication was prescribed unless they met criteria for the onset of a psychotic episode. Casework was limited to assistance with accommodation, education, employment and brief family education and support (no structured family intervention was offered). Prescription and management of medication was the responsibility of the medical staff who were not involved in the study and were blind to treatment allocation.

2.2.4 Therapists

The same therapists provided both the CBT and NDRL interventions. This allowed follow-up assessors to remain blind to treatment assignment, as mention of the therapist’s name by the participant would not break the blind. Additionally, this provided the advantage of controlling many of the non-specific and static
aspects of treatment, such as the age, gender, personality and experience of the therapists. Therapy was provided by five clinical psychologists and three registered psychologists (all with at least two years of postgraduate training). Therapists followed the treatment manuals and guidelines for each intervention which stipulated prescribed and proscribed strategies. To ensure that treatment was adherent and comparable across the two sites, fortnightly group supervision was conducted by tele-conference. Four of the urban therapists and one rural therapist received initial training in CBT, as prescribed by the French and Morrison manual, during a three-day intensive workshop conducted by Paul French of the EDIE project and co-author of the CBT manual utilised in this study. Therapists who joined the project after this were trained by the therapists who had attended Paul French’s workshops. All therapists were trained and supervised in NDRL by CI Startup. CI Baker provided training in MI following the Hides et al. (2006) manual. CI Baker has extensive experience using this mode of treatment for individuals with co-morbid mental health and substance use problems.

2.3 Materials

2.3.1 Assessment measures

Four instruments were utilised in assessing the DEPTTh project therapy sessions, the: CTARPAS; CTS; CTS-Psy; and, WAI-O-S.
2.3.1.1 The CTARPAS (See Appendix C)

The CTARPAS is a nine item scale that was developed by the investigator and colleagues to rate therapist adherence to the French and Morrison (2004) manual of cognitive therapy for people at high risk of developing psychosis that is being utilised in the DEPTh project. The scale is also being utilised in the EDIE-II project. The CTARPAS was designed to be used in conjunction with audio recordings to rate entire therapy sessions. Raters are not required to have special knowledge of the behaviours being measured by the CTARPAS in order to rate the items. The scale was specifically designed so that raters with no previous exposure to the therapeutic modality represented in the scale could reliably and validly rate therapist behaviours which occur in this modality.

The manual begins with general comments and instructions to raters. The remainder of the manual is organised according to item number and for each item includes: the item title; the exact wording and format of the item as it appears in the scale; an elaboration of the item’s purpose; examples of possible therapist behaviours which may and may not be included in the item; an example of adherent therapy dialogue; and an example of non-adherent therapy dialogue. Some items also have information about how raters can make distinctions between particular items. The manual also provides examples of therapeutic exchanges and guidelines for how to rate these exchanges. As examples can only reflect fragments of a therapy session, they can only be used as a guide to the kinds of behaviours and the intensity with which they should occur, not the frequency with which the behaviours should occur. Reference is therefore only made throughout the manual to the adherence rating appropriate to the example.
The nine target items of the CTARPAS include: Problem list and goals; Formulation work; Normalising; Generating and evaluating alternative explanations; Safety behaviours; Metacognitive beliefs; 'I am different' and other core beliefs; Social isolation; and Relapse prevention. The CTARPAS items are rated on two scales of adherence and frequency. The first scale (see Table 2) reflects the therapist’s adherence to the French and Morrison (2004) CBT intervention and is referred to as Scale One (Adherence).

Table 2

The CTARPAS’ Scale One (Adherence)

<table>
<thead>
<tr>
<th></th>
<th>-1</th>
<th>0</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present but not adherent</td>
<td>Not present</td>
<td>Present and adherent</td>
<td></td>
</tr>
</tbody>
</table>

If a therapist activity is present in some sense within the therapy session but does not adhere to the French and Morrison (2004) model in its application then it should be rated as ‘present but not adherent’ and receive a rating of −1, this activity is then rated separately for its frequency within the session. If a therapist activity is present within the session and adheres to the French and Morrison (2004) model in its application, then it receives a rating of +1, and this activity is then rated separately for its frequency within the session.

The second scale (see Table 3) is used to rate the frequency with which an activity, rated as ‘present’ (whether adherent or not) occurred throughout the session, and is referred to as Scale Two.
Table 3

_the CTARPAS’ Scale Two (Frequency)_

<table>
<thead>
<tr>
<th>Present</th>
<th>2.0</th>
<th>3.0</th>
<th>4.0</th>
<th>5.0</th>
<th>6.0</th>
<th>7.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Just sufficiently present to be considered a ‘dose’ of therapy</td>
<td>Occurred once for a significant period, or briefly on a few occasions</td>
<td>Characterised the session</td>
<td>Present throughout the whole session</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present</td>
<td>Quite frequent</td>
<td>Very frequent</td>
<td>Extremely frequent</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The frequency scale points range from one to seven, which are anchored to approximate timings reflecting the estimated presence of the therapist activity/behaviour throughout the session. If the activity was not adherent to the therapy model and received an adherence rating of -1, then the frequency ratings reflect this by ranging from -1 to -7. If the therapy activity was adherent to the therapy model and scored +1 on the adherence scale, then the frequency ratings would range from +1 to +7. This approach allows a greater range of options when analysing data as the competency rating is not subsumed within the frequency rating and can therefore be incorporated in or omitted from any analysis as required. For a therapist activity to be rated as present on the CTARPAS Scale Two, it must be considered to be a clinically significant ‘dose’ of a particular behaviour, as opposed to simply a passing comment. It is suggested that most activities should be identifiable for at least five minutes at some point throughout the entire session for it to be likely that the activity could have impacted clinically upon the client. A rating of +1 then assumes the therapist behaviour to be present for at least five minutes throughout the session and to be adherent with the
manual. If a therapist activity is identifiable but barely present, it is rated as absent (0) on the adherence scale of the CTARPAS, regardless of whether or not it was adherent to the French and Morrison (2004) model.

Competent practice within the context of the CTARPAS is defined as practices that are adherent to the French and Morrison (2004) CBT model. In general, many practices can be subsumed within this therapeutic approach however three general principles are required for a practice to be considered adherent to the model (and therefore to be rated as competent). The therapy must be: individualised to the client’s unique presenting problem; matched to the client’s level of understanding; and, carried out collaboratively with the client. Specific examples of therapist activities that do and do not adhere to these principles are provided for each of the individual items within the manual.

The CTARPAS manual details more specifically and provides guidelines for raters’ issues such as: how they should rate therapist behaviours; how they should rate therapist facilitation of behaviours; prerequisite knowledge for ratings; how to avoid haloed ratings; how to use the provided guidelines and examples in the manual; how to make distinctions between items; and how to handle overlap between current and prior sessions.

The CTARPAS is designed to rate therapist behaviour. In rating the scale items it is important for the rater to distinguish the therapist behaviour (as much as possible) from the client behaviour in response to the therapist. That is, the rater
should attempt to rate the therapist behaviour, not the client’s response to that behaviour. In rating therapist behaviour, the rater should consider what the therapist attempted to do, not whether these attempts were met with success or failure. Ratings of therapist intentions must be made on the basis of the dialogue within the session, rather than on the rater’s own intentions in the same situation, or the rater’s previous knowledge of the therapist’s work. One difficulty that may arise when attempting to rate therapist behaviour is that the client may initiate a behaviour, which is measured on an item, or the client, may actually engage in a behaviour being measured on an item, with limited therapist involvement. An item should not necessarily receive a lower rating in either of these circumstances. In these cases, ratings should reflect the degree to which the therapist facilitates the behaviour being measured, that is, the therapist must actively encourage, prompt, or work with the client in relation to this behaviour. In order to use the CTARPAS correctly, it is essential that raters rate what they hear, not what they think ought to have occurred in the session. The rater should aim to apply the same standards for rating an item regardless of what type of therapy raters think they are rating, what other behaviours the therapist engaged in during the session, what ratings were given to other items, how skilled the rater believes the therapist to be, how much the rater likes the therapist, or whether the rater thinks the behaviour being rated is a good or a bad thing to do.

As the CTARPAS items vary in breadth of coverage, the same therapist behaviours which are rated under one item may also be rated appropriately under other items. Conversely, the rater is often required to make fine distinctions
between therapist behaviours which are similar, yet should be rated distinctly. Thus, the manual contains a ‘Distinctions from other items’ section within the entry for two of the CTARPAS items in an attempt to help the rater decide where to rate a particular therapy behaviour. This section contains information regarding how the ‘target’ item is similar and/or different from other ‘comparison’ items.

2.3.1.2 The CTS (Young & Beck, 1980; see Appendix A)

The CTS is the most widely used and best established measure for assessing skills in delivering cognitive therapy, that is, general competence in CBT (Trepka, Rees, Shapiro, Hardy, & Barkham, 2004). The 11 item version of this scale was used in the DEPTh project. The CTS items are rated by an observer during a single entire therapy session that has been audio or video recorded. To adequately and effectively utilise the CTS the rater needs a sound knowledge of CBT principles and practice as it requires varying degrees of inference for particular scale variables. Psychometrically, the CTS has been shown to have strong internal reliability for the scale as a whole (alpha coefficient 0.95) and moderate inter-rater reliability of .59 for the total score with individual items ranging from .27 to .59 (Vallis, Shaw, & Dobson, 1986).

The CTS is divided into two subscales – the ‘General Therapeutic Skills’ subscale and the ‘Conceptualisation, Strategy, and Technique’ subscale. The General Therapeutic Skills subscale is considered to measure general therapy skills that are not unique to CBT, and includes the items: Agenda setting; Feedback; Understanding; Interpersonal effectiveness; Collaboration; and Pacing.
and efficient use of time. The Conceptualisation, Strategy and Technique subscale is designed to rate behaviours that are considered to be unique to CBT, and includes the items: Guided discovery; Focusing on key cognitions or behaviours; Strategy for change; Application of cognitive-behavioural techniques; and Homework. The CTS also has sections for the rater to note how the therapist dealt with any problems that arose within the session, and to make overall ratings of the difficulty of the session and general overall therapist competence.

The CTS uses a qualitative rating of skill in each domain on an anchored 7-point scale (where 0 = Poor and 6 = Excellent) with definitions at alternate points, resulting in a score that ranges from 0 to 66. A score of two and above on an item is generally regarded as a cut-off for competence with CBT (Young & Beck, 1980).

For the purposes of the DEPTh project the CTS items of Understanding and Interpersonal effectiveness were added together to make another subscale which was termed the 'Facilitative Conditions' subscale. This subscale essentially captures the only two activities that therapists delivering the NDRL intervention were expected to rate highly on. All other activities covered by the CTS were proscribed for therapists when delivering the NDRL intervention.

2.3.1.3 The CTS-Psy (Haddock et al., 2001; see Appendix B)
The CTS-Psy was adapted by Haddock et al. (2001) from the CTS in order to more accurately rate therapist competence in CBT when working with
individuals with psychosis. This scale was developed to better allow for
differences that are encountered when working with individuals with psychosis
and to allow for the way CBT has been adapted and developed for use with these
individuals. Haddock et al. (2001) have demonstrated that the CTS-Psy is easy to
use, reliable, and has the ability to distinguish between different therapist skill
levels. High inter-rater reliability was demonstrated with overall scores and for
each of the two subscales. The majority of individual items had good inter-rater
reliability and raters were shown to be able to reliably discriminate between
specific therapy skills and general competence (Haddock et al., 2001).

The CTS-Psy includes 10 items that are rated by an observer during a
single entire therapy session that has been audio or video recorded, and is a scale
that can be utilised by non experts in CBT. The measure is divided into two
subscales - the ‘General Skills’ subscale and the ‘Specific Skills’ subscale. The
General Skills subscale consists of the items: Agenda setting; Feedback;
Understanding; Interpersonal effectiveness; and Collaboration. The Specific skills
subsacle consists of the items: Guided discovery; Focus on key cognitions; Choice
of cognitive-behavioural interventions; Quality of interventions applied; and
Homework.

As with the CTS, for the purposes of the DEPTH project the CTS-Psy
items of Understanding and Interpersonal effectiveness were added together to
make another subscale which was termed the 'Facilitative Conditions' subscale.
This subscale essentially captures the only two activities that therapists delivering
the NDRL intervention were expected to rate highly on. All other activities covered by the CTS-Psy were proscribed for therapists when delivering the NDRL intervention.

The CTS-Psy items are rated using a checklist of six micro-skills within each domain. The rater rates each of these sub-items as being present, absent or appropriately omitted during the therapy session under review. This scoring method was used to improve reliability by turning a subjective rating into a series of behavioural observations (Gordon, 2006). A higher score of observed behaviours indicates a greater competency resulting in a score that ranges from 0 to 60.

2.3.1.4 The WAI-O-S (Horvath, 1991; see Appendix E)

The WAI is a measure developed by Horvath and Greenberg (1989) that was designed to measure aspects of Bordin’s (1979) integrative model of therapeutic alliance that considers bond, goals and task of utmost importance. The WAI was originally a 36 item measure (client and therapist versions) and was shortened to 12 items by Tracey and Kokotovic (1989). Strong support for the reliability and reasonable evidence for the validity of all the WAI scales in general has been found (Martin et al., 2000; Horvath, 1994). Tichenor and Hill (1989) adapted the WAI short forms to be rated by observers by adapting the pronouns from the client and therapist forms. The WAI-O-S is a widely used and accepted
alliance scale that has been shown to have good reliability, \( r = 0.81 \) (Martin et al., 2000).

The WAI-O-S consists of 12 items, 10 positively worded and two negatively worded, rated on a seven point likert-type scale (1 = never, 7 = always) resulting in a score ranging from 0 to 84 (Horvath & Luborsky, 1993). The items are divided into three subscales consisting of four items each. The subscales based on Bordin’s working alliance theory, are: Goal (agreement about the goals or desired outcomes of therapy; e.g., “The client and therapist have established a good understanding of the changes that would be good for the client”, Items 4, 6, 10 and 11); Task (agreement about the tasks of the therapy necessary to reach the goals; e.g., “There is agreement on what is important for the client to work on”, Items 1, 2, 8 and 12); and Bond (the positive personal attachments between client and therapist, including issues such as mutual trust and respect, acceptance and friendliness; e.g., “There is mutual trust between the client and therapist”, Items 3, 5, 7 and 9). Raue and Goldfried (1994) have provided guidelines for raters on how to assess each of these three subscales. For the Goal subscale, raters should assess agreement according to the extent to which both therapist and client see the goals as important, clear, and capable of being accomplished (Raue & Goldfried, 1994). For the Task subscale, raters should assess agreement according to how responsive the client is to the therapist’s focus, and how responsive the therapist is to the client’s focus or need (Raue & Goldfried, 1994). For the Bond subscale, raters should assess both the therapist and client’s tone of voice, amount and ease of client talk concerning intimate issues, displays of comfort and non
defensiveness by both the therapist and client, therapist accurate empathy, and the
value both the therapist and the client place on each other’s contributions (Raue &
Goldfried, 1994).

2.4 Procedure

2.4.1 Randomisation and recruitment

During the initial assessment, a psychiatrist assessed each participant’s
need for antidepressant medication. Once this assessment was completed,
participants were randomly assigned to treatment conditions, stratified by site and
receipt of antidepressant medication, using a system of central and external
randomisation. Recruitment occurred for a two year period from May 2006 to
August 2008.

2.4.2 Therapy protocol

The maximum number of DEPTh therapy sessions (both CBT and NDRL)
offered to the participants was 26 sessions, or six months of treatment, whichever
came first. Clients were asked to commit themselves at the outset of treatment to
attend at least eight sessions. Sessions were conducted at a frequency that was
negotiated between the individual therapist and the client (that is, weekly,
fortnightly, or monthly) and each session lasted up to an hour in duration.
Sessions were conducted in mutually agreed community based sites where both
therapist and client safety was prioritised.
A baseline assessment was conducted with each participant prior to commencement of therapy and then follow-up assessments were conducted at monthly intervals for the first six months and bi-monthly for the next six months by the DEPTh project research assistants who were blind to treatment allocation. During the baseline and follow-up assessments a battery of mental health (observer and self-report) and substance use measures were utilised.

If participant symptoms changed (as indicated by the CAARMS), or relevant symptom changes were noted by the therapist or research officer, the participant was immediately referred to the psychiatrist for a psychiatric assessment and the prescription of medication if required. If a participant made the transition to psychosis within the time frame of the study, they were offered the most appropriate treatment, and once symptoms settled, they were invited back into the study to continue with therapy and follow-up assessments if they chose to. Upon the completion of therapy at the six month mark, participants were offered either treatment as usual (TAU) at the appropriate service, a referral to another service, or to remain involved in the follow-up DEPTh assessments with no further planned treatment.

Participants received 20 dollars reimbursement for time and travel on follow-up assessment occasion. No reimbursement was provided for attending the therapy sessions.
2.4.3 Adherence and competence ratings

All therapy sessions were audio recorded in their entirety by the individual therapists, provided consent was given by the client.

In the piloting phase of this study 10 sessions selected at random were rated independently by the investigator and her supervisor using the four assessment measures described earlier. The investigator is a registered psychologist with eight years clinical experience and who is completing her postgraduate doctoral program in clinical psychology. She was also employed as a research assistant on the DEPTh project. The investigator’s supervisor is CI Startup who has been qualified as a Clinical Psychologist for 22 years and is a member of the Academy of Cognitive Therapy. He was a research therapist on the Second Sheffield Psychotherapy Project (Shapiro, Barkham, Rees, Hardy, Reynolds & Startup, 1994), a randomised controlled trial comparing CBT and Interpersonal Psychodynamic Therapy for depression. He was also a research therapist on the North Wales randomised controlled trial of CBT for acute psychosis (Startup et al., 2004). Each of the session ratings were discussed in detail between the investigator and CI Startup to ensure a shared understanding of the items and to allow calibration of the ratings on all measures utilised in the project. This was done to improve the reliability between the raters.

The original sampling strategy was to stratify participants according to treatment type, medication status, therapist and stage of individual therapy (early, middle or late stage). However, as mentioned previously, the small recruitment
numbers and the difficulties gaining consent, particularly in the rural arm of the study (where 137 sessions could not be utilised), resulted in the original sampling strategy having to be modified. For each participant two sessions were selected at random from session’s two to eight, and two sessions were selected at random from session nine onwards (where available) for rating. Session one was not included in any ratings due to the different structure of first sessions compared to other sessions, for example in this session the type of intervention that the participant had been allocated to would be explained. Once piloting was completed, 24 sessions (15 CBT sessions and nine NDRL sessions) were rated by the investigator and her supervisor independently. The investigator and her supervisor discussed a small number of these sessions in detail in ‘anti-drift’ meetings to ensure that the raters had not diverged in their understanding of the items. An additional 30 sessions were rated by the investigator alone bringing the total of sessions the investigator rated for the study to 55 (32 CBT sessions and 23 NDRL sessions).

2.4.4 Statistical analyses

Analyses were conducted using the Statistical Package for the Social Sciences (SPSS), Version 15.0 for Windows.
3.1 Reliability of the measures

Initially 15 sessions of the CBT intervention and nine sessions of the NDRL intervention were rated by the investigator and her supervisor independently (n = 24). To address the degree of agreement amongst the two raters on all four measures utilised, two-way mixed effects model intraclass correlation coefficients (ICC) were calculated. Values of ≥ 0.75 are considered indicative of adequate consistency and agreement between raters (Howell, 1997). Results of the ICC’s for both a single rater and two raters will be reported. For many of the measures variability amongst items was low or zero for the NDRL intervention, therefore percentage agreement was calculated instead of ICC’s to assess inter-rater reliability.

3.1.1 The CTARPAS CBT intervention

Table 4 illustrates the ICC’s (for a single rater and two raters) for each of the CTARPAS items. As can be seen from Table 4 all estimates of inter-rater reliability, for both single and two raters, on the CTARPAS items in the CBT intervention were above .75 which is indicative of excellent inter-rater reliability. For a single rater ICC’s ranged from .80 (Social isolation) to .98 (Safety behaviours, ‘I am different’ and other core beliefs, and Relapse prevention) and for two raters ranged from .89 (Social isolation) to .99 (Safety behaviours, ‘I am different’ and other core beliefs, and Relapse prevention).
Table 4

ICC’s for the CTARPAS items – CBT intervention

<table>
<thead>
<tr>
<th>CTARPAS item</th>
<th>ICC (1)</th>
<th>ICC (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem list and goals</td>
<td>.94</td>
<td>.97</td>
</tr>
<tr>
<td>Formulation work</td>
<td>.95</td>
<td>.97</td>
</tr>
<tr>
<td>Normalising</td>
<td>.95</td>
<td>.97</td>
</tr>
<tr>
<td>Generating and evaluating alternative explanations</td>
<td>.85</td>
<td>.92</td>
</tr>
<tr>
<td>Safety behaviours</td>
<td>.98</td>
<td>.99</td>
</tr>
<tr>
<td>Metacognitive beliefs</td>
<td>.96</td>
<td>.98</td>
</tr>
<tr>
<td>‘I am different’ and other core beliefs</td>
<td>.98</td>
<td>.99</td>
</tr>
<tr>
<td>Social isolation</td>
<td>.80</td>
<td>.89</td>
</tr>
<tr>
<td>Relapse prevention</td>
<td>.98</td>
<td>.99</td>
</tr>
<tr>
<td>Total scale</td>
<td>.95</td>
<td>.97</td>
</tr>
</tbody>
</table>

NDRL intervention

Ratings by both raters on the CTARPAS for the NDRL sessions showed close to zero variance, with all but one rater for one session rating one item as adherent and being sufficiently present in the session to be considered a dose of therapy. All other items were rated as being not present in any of the nine sessions under review. A percentage agreement calculation found that the two raters agreed on 98.8% of ratings.
3.1.2 The CTS

CBT intervention

Table 5 illustrates the ICC’s (for a single rater and two raters) for each of the two CTS subscales, the Facilitative Conditions subscale, and their respective items.

Table 5

*ICC’s for the CTS subscales and their items – CBT intervention*

<table>
<thead>
<tr>
<th>CTS subscales and items</th>
<th>ICC (1)</th>
<th>ICC (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Therapeutic Skills</td>
<td>.87</td>
<td>.93</td>
</tr>
<tr>
<td>Agenda</td>
<td>.90</td>
<td>.95</td>
</tr>
<tr>
<td>Feedback</td>
<td>.89</td>
<td>.94</td>
</tr>
<tr>
<td>Collaboration</td>
<td>.77</td>
<td>.87</td>
</tr>
<tr>
<td>Pacing and efficient use of time</td>
<td>.75</td>
<td>.85</td>
</tr>
<tr>
<td>Facilitative Conditions</td>
<td>.68</td>
<td>.81</td>
</tr>
<tr>
<td>Understanding</td>
<td>.64</td>
<td>.78</td>
</tr>
<tr>
<td>Interpersonal effectiveness</td>
<td>.60</td>
<td>.75</td>
</tr>
<tr>
<td>Conceptualisation, Strategy and Technique</td>
<td>.87</td>
<td>.93</td>
</tr>
<tr>
<td>Guided discovery</td>
<td>.84</td>
<td>.91</td>
</tr>
<tr>
<td>Focusing on key cognitions or behaviours</td>
<td>.82</td>
<td>.90</td>
</tr>
<tr>
<td>Strategy for change</td>
<td>.55</td>
<td>.71</td>
</tr>
<tr>
<td>Application of cognitive-behavioural techniques</td>
<td>.69</td>
<td>.81</td>
</tr>
<tr>
<td>Homework</td>
<td>.91</td>
<td>.95</td>
</tr>
<tr>
<td>CTS Total</td>
<td>.87</td>
<td>.93</td>
</tr>
</tbody>
</table>
As can be seen from Table 5, estimates of inter-rater reliability on the CTS subscales and overall total were identical at .87 for a single rater and .93 for two raters which is indicative of excellent inter-rater reliability. Inter-rater reliability was fair on the Facilitative Conditions subscale at .68 for a single rater and .81 for two raters.

**NDRL intervention**

Table 6 illustrates the ICC’s for the Facilitative Conditions subscale and its respective items for the NDRL sessions.

Table 6

*ICC’s for the Facilitative Conditions subscale on the CTS – NDRL intervention*

<table>
<thead>
<tr>
<th>CTS subscale and items</th>
<th>ICC (1)</th>
<th>ICC (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitative Conditions</td>
<td>.44</td>
<td>.61</td>
</tr>
<tr>
<td>Understanding</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Interpersonal effectiveness</td>
<td>.62</td>
<td>.77</td>
</tr>
</tbody>
</table>

As can be seen in Table 6, the ICC for the Facilitative Conditions subscale is low, chiefly as a result of the very low agreement on the ‘Understanding’ item. The ratings of this item for the nine NDRL sessions by the two independent raters are shown in Table 7. It can be seen there is little variability between sessions and high ratings were given by both raters. It appears that due to the low variability, differences, when they occurred, had disproportionate effects on the reliability coefficient.
Table 7

*Rau scores on the ‘Understanding’ item of the CTS by both independent raters*

<table>
<thead>
<tr>
<th>Rater 1</th>
<th>Rater 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

Apart from the ratings on the items that make up the Facilitative Conditions subscale, all other ratings on all other CTS items were expected to be zero. Of these nine other items the two raters agreed on ratings of zero on 90.12% of these items. Of the ratings that were not scored zero the two raters had identical ratings on 50% of these ratings. The ‘Collaboration’ item was the item with the most variability in a rating other than zero. The overall agreement on the CTS in the NDRL intervention for all eleven items was 86.9%.
3.1.3 The CTS-Psy

**CBT intervention**

Table 8 illustrates the ICC’s (for a single rater and two raters) for each of the two CTS-Psy subscales, the Facilitative Conditions subscale, and their respective item totals.

Table 8

*ICCs for the CTS-Psy subscales and their item totals – CBT intervention*

<table>
<thead>
<tr>
<th>CTS-Psy subscales and item totals</th>
<th>ICC (1)</th>
<th>ICC (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Skills</td>
<td>.89</td>
<td>.94</td>
</tr>
<tr>
<td>Agenda</td>
<td>.77</td>
<td>.87</td>
</tr>
<tr>
<td>Feedback</td>
<td>.90</td>
<td>.95</td>
</tr>
<tr>
<td>Collaboration</td>
<td>.77</td>
<td>.87</td>
</tr>
<tr>
<td>Facilitative Conditions</td>
<td>.47</td>
<td>.64</td>
</tr>
<tr>
<td>Understanding</td>
<td>.38</td>
<td>.55</td>
</tr>
<tr>
<td>Interpersonal effectiveness</td>
<td>.42</td>
<td>.59</td>
</tr>
<tr>
<td>Specific Skills</td>
<td>.96</td>
<td>.98</td>
</tr>
<tr>
<td>Guided discovery</td>
<td>.96</td>
<td>.98</td>
</tr>
<tr>
<td>Focus on key cognitions</td>
<td>.91</td>
<td>.95</td>
</tr>
<tr>
<td>Choice of intervention</td>
<td>.89</td>
<td>.94</td>
</tr>
<tr>
<td>Homework</td>
<td>.90</td>
<td>.95</td>
</tr>
<tr>
<td>Quality of intervention</td>
<td>.86</td>
<td>.92</td>
</tr>
<tr>
<td>Overall Total</td>
<td>.96</td>
<td>.98</td>
</tr>
</tbody>
</table>
As can be seen from Table 8, estimates of inter-rater reliability on the CTS-Psy for the General and Specific Skills’ subscales were excellent. However, inter-rater reliability for the Facilitative Conditions subscale was low.

**NDRL intervention**

Table 9 illustrates the ICC’s (for a single rater and two raters) for the Facilitative Conditions subscale, and its respective item totals.

Table 9

*ICCs for the Facilitative Conditions subscale on the CTS-Psy – NDRL intervention*

<table>
<thead>
<tr>
<th>CTS subscale and items</th>
<th>ICC (1)</th>
<th>ICC (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitative Conditions</td>
<td>.32</td>
<td>.48</td>
</tr>
<tr>
<td>Understanding</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Interpersonal effectiveness</td>
<td>.43</td>
<td>.60</td>
</tr>
</tbody>
</table>

As can be seen in Table 9, the ICC for the Facilitative Conditions subscale is low, again chiefly as a result of the very low agreement on the ‘Understanding’ item. The ratings of this item for the nine NDRL sessions by the two independent raters are shown in Table 10. It can be seen there is little variability between sessions and high ratings were given by both raters. As with the corresponding item of the CTS, it appears that, due to the low variability, differences, when they occurred,
had disproportionate effects on the reliability coefficient. There was, in fact, 77.8% agreement on the ratings.

Table 10

*Raw scores on the ‘Understanding’ item of the CTS-Psy by both independent raters*

<table>
<thead>
<tr>
<th>Rater 1</th>
<th>Rater 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
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<td>6</td>
<td>6</td>
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<tr>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

Apart from the Facilitative Conditions subscale items, all ratings on the other eight CTS-Psy items in the NDRL intervention were expected to be scored as appropriately omitted. The percentage agreement between the two raters agreeing on items being appropriately omitted was 75%. Of the ratings that were not scored as appropriately omitted the two raters agreed on 44.4% of these ratings bringing the overall percentage agreement to 82.2%. The ‘Collaboration’ item was the item that both raters most often coded as being appropriately
included. This appears to be due to several descriptors on this item’s checklist that describe activities that are also adherent in NDRL, such as ‘Discussion was pitched at a level and in a language that was easily understandable by the client’.

3.1.4 The WAI-O-S

Table 11 shows the ICC’s (for a single rater and two raters) for each of the three WAI-O-S subscales and overall total for both the CBT and NDRL interventions.

Table 11

<table>
<thead>
<tr>
<th>WAI-O-S subscale total</th>
<th>CBT</th>
<th>NDRL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ICC (1)</td>
<td>ICC (2)</td>
</tr>
<tr>
<td>Task</td>
<td>.84</td>
<td>.91</td>
</tr>
<tr>
<td>Bond</td>
<td>.66</td>
<td>.79</td>
</tr>
<tr>
<td>Goal</td>
<td>.94</td>
<td>.97</td>
</tr>
<tr>
<td>Overall Total</td>
<td>.87</td>
<td>.93</td>
</tr>
</tbody>
</table>

As can be seen from Table 11, estimates of inter-rater reliability for a single rater on the WAI-O-S subscales for the CBT sessions were highest on Goal (excellent reliability) followed by Task (excellent reliability) and Bond (good reliability). For the NDRL sessions inter-rater reliability for a single rater was
highest on Task (excellent reliability) followed by Goal (excellent reliability) and Bond (fair reliability).

3.2 Descriptive statistics of the measures

Given the mostly high levels of agreement on the four measures between the two raters it was justified to use the investigator's independent ratings on the sessions she rated for the remainder of the statistical analyses, \( n = 55 \) (\( n = 32 \) for the CBT intervention and \( n = 23 \) for the NDRL intervention). The means and standard deviations (SD) for both the CBT and NDRL interventions are given for all CTARPAS subscale items in Table 12, all CTS subscale item totals in Table 13, all CTS-Psy subscale item totals in Table 14 and all WAI-O-S subscale item totals in Table 15.
As can be seen in Table 12, in the CBT intervention ‘Formulation work’ was the activity most frequently performed (nearly reaching a ‘Quite frequent’ basis on the frequency scale) by the therapists, followed by the activity of ‘Problem list and goals’ (‘Present’ to ‘Quite frequent’). The remainder of the other activities were not performed frequently and on average were not sufficiently present in sessions to be considered a dose of therapy, with the activity of ‘Social isolation’ rarely occurring. As expected in the NDRL intervention, therapists performed no CTARPAS activities that were rated on average as ‘Present’ and therefore considered a dose of therapy.
As can be seen in Table 13, therapists who were delivering the CBT intervention concentrated most on the activities of ‘Interpersonal effectiveness’, ‘Understanding’ and ‘Focusing on key cognitions or behaviours’. The activities of ‘Agenda’ and ‘Homework’ were the least performed. As would be expected, therapists delivering the NDRL intervention similarly concentrated most on the activities of ‘Interpersonal effectiveness’ and ‘Understanding’. Therapists in both intervention conditions were scored nearly equally and very highly on the activities of ‘Interpersonal effectiveness’ and ‘Understanding’ which made up the Facilitative Conditions subscale.
Table 13

CTS subscales and items’ means and SD’s - CBT and NDRL interventions

<table>
<thead>
<tr>
<th>CTS Subscales and items</th>
<th>CBT</th>
<th></th>
<th>NDRL</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>General Therapeutic Skills</td>
<td>24.97</td>
<td>5.10</td>
<td>12.17</td>
<td>1.97</td>
</tr>
<tr>
<td>Agenda</td>
<td>2.84</td>
<td>1.76</td>
<td>.04</td>
<td>.21</td>
</tr>
<tr>
<td>Feedback</td>
<td>3.25</td>
<td>2.03</td>
<td>.17</td>
<td>.83</td>
</tr>
<tr>
<td>Collaboration</td>
<td>4.28</td>
<td>1.14</td>
<td>1.22</td>
<td>1.88</td>
</tr>
<tr>
<td>Pacing and efficient use of time</td>
<td>4.44</td>
<td>1.39</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Facilitative Conditions</td>
<td>10.28</td>
<td>1.57</td>
<td>10.74</td>
<td>1.25</td>
</tr>
<tr>
<td>Understanding</td>
<td>5.00</td>
<td>.88</td>
<td>5.17</td>
<td>.83</td>
</tr>
<tr>
<td>Interpersonal effectiveness</td>
<td>5.28</td>
<td>.85</td>
<td>5.57</td>
<td>.83</td>
</tr>
<tr>
<td>Conceptualisation, Strategy and Technique</td>
<td>21.69</td>
<td>4.98</td>
<td>.22</td>
<td>.60</td>
</tr>
<tr>
<td>Guided discovery</td>
<td>4.56</td>
<td>1.16</td>
<td>.04</td>
<td>.21</td>
</tr>
<tr>
<td>Focusing on key cognitions or behaviours</td>
<td>4.97</td>
<td>1.33</td>
<td>.17</td>
<td>.58</td>
</tr>
<tr>
<td>Strategy for change</td>
<td>4.47</td>
<td>1.16</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Application of cognitive-behavioural techniques.</td>
<td>4.78</td>
<td>1.16</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Homework</td>
<td>2.84</td>
<td>1.57</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Overall Total</td>
<td>46.66</td>
<td>9.56</td>
<td>12.39</td>
<td>1.95</td>
</tr>
</tbody>
</table>
Table 14

CTS-Psy subscales and items’ means and SD’s - CBT and NDRL interventions

<table>
<thead>
<tr>
<th>CTS-Psy subscales and item</th>
<th>CBT</th>
<th>NDRL</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Skills</td>
<td>22.72</td>
<td>15.43</td>
</tr>
<tr>
<td>Mean</td>
<td>2.92</td>
<td>1.80</td>
</tr>
<tr>
<td>Feedback</td>
<td>1.91</td>
<td>1.13</td>
</tr>
<tr>
<td>Mean</td>
<td>1.17</td>
<td>1.29</td>
</tr>
<tr>
<td>Collaboration</td>
<td>2.03</td>
<td>2.30</td>
</tr>
<tr>
<td>Mean</td>
<td>1.18</td>
<td>1.02</td>
</tr>
<tr>
<td>Facilitative Conditions</td>
<td>11.88</td>
<td>11.26</td>
</tr>
<tr>
<td>Mean</td>
<td>.42</td>
<td>.54</td>
</tr>
<tr>
<td>Understanding</td>
<td>5.97</td>
<td>5.91</td>
</tr>
<tr>
<td>Mean</td>
<td>.18</td>
<td>.29</td>
</tr>
<tr>
<td>Interpersonal effectiveness</td>
<td>5.91</td>
<td>5.35</td>
</tr>
<tr>
<td>Mean</td>
<td>.30</td>
<td>.49</td>
</tr>
<tr>
<td>Specific Skills</td>
<td>21.59</td>
<td>1.43</td>
</tr>
<tr>
<td>Guided discovery</td>
<td>5.09</td>
<td>1.09</td>
</tr>
<tr>
<td>Mean</td>
<td>1.25</td>
<td>1.41</td>
</tr>
<tr>
<td>Focus on key cognitions</td>
<td>4.91</td>
<td>.35</td>
</tr>
<tr>
<td>Mean</td>
<td>1.28</td>
<td>1.15</td>
</tr>
<tr>
<td>Choice of intervention</td>
<td>4.63</td>
<td>.00</td>
</tr>
<tr>
<td>Mean</td>
<td>1.66</td>
<td>.00</td>
</tr>
<tr>
<td>Homework</td>
<td>2.59</td>
<td>.00</td>
</tr>
<tr>
<td>Mean</td>
<td>1.96</td>
<td>.00</td>
</tr>
<tr>
<td>Quality of intervention</td>
<td>4.38</td>
<td>.00</td>
</tr>
<tr>
<td>Mean</td>
<td>1.50</td>
<td>.00</td>
</tr>
<tr>
<td>Overall Total</td>
<td>44.31</td>
<td>16.87</td>
</tr>
<tr>
<td>Mean</td>
<td>7.34</td>
<td>3.47</td>
</tr>
</tbody>
</table>
As can be seen in Table 14 therapists in both intervention conditions concentrated the most on the activities of ‘Interpersonal effectiveness’ and ‘Understanding’ which made up the Facilitative Conditions subscale and were scored nearly equally and very highly, achieving close to perfect scores. Therapists delivering the CBT intervention also focused highly on the activity of ‘Guided discovery’ and focused the least on the activity of ‘Feedback’.

As can be seen in Table 15, therapists when delivering both the CBT and the NDRL interventions were scored most highly on ‘Bond’ being closely followed by ‘Goal’ and then ‘Task’.

### Table 15

*WAI-O-S subscales’ means and SD’s – CBT and NDRL interventions*

<table>
<thead>
<tr>
<th>WAI-O-S subscale total</th>
<th>CBT Mean</th>
<th>CBT SD</th>
<th>NDRL Mean</th>
<th>NDRL SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task</td>
<td>19.56</td>
<td>4.33</td>
<td>19.78</td>
<td>6.02</td>
</tr>
<tr>
<td>Bond</td>
<td>23.53</td>
<td>3.39</td>
<td>24.74</td>
<td>2.88</td>
</tr>
<tr>
<td>Goal</td>
<td>21.44</td>
<td>4.74</td>
<td>20.52</td>
<td>5.97</td>
</tr>
<tr>
<td>Overall total</td>
<td>64.53</td>
<td>11.38</td>
<td>65.04</td>
<td>14.02</td>
</tr>
</tbody>
</table>
3.3 Discrimination between the CBT and NDRL intervention

Agreement between the two raters was 100% and discrimination was 100% accurate in relation to assessing whether the intervention rated was an example of CBT or NDRL.

3.4 Correlations between the measures

3.4.1 The CTS and the CTS-Psy

To investigate the strength of the relationship between the CTS and the CTS-Psy, correlations were performed on all ratings of the 32 CBT sessions in relation to both measures’ subscales and overall total scores.

Table 16

*Pearson correlations between the subscales of the CTS and the CTS-Psy*

<table>
<thead>
<tr>
<th>CTS Subscale</th>
<th>CTS-Psy General Skills</th>
<th>CTS-Psy Specific Skills</th>
<th>CTS-Psy Overall total</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Therapeutic Skills</td>
<td>.74*</td>
<td>.75*</td>
<td>.85*</td>
</tr>
<tr>
<td>Conceptualisation, Strategy and Technique</td>
<td>.50*</td>
<td>.84*</td>
<td>.82*</td>
</tr>
<tr>
<td>Overall total</td>
<td>.65*</td>
<td>.84*</td>
<td>.88*</td>
</tr>
</tbody>
</table>

* p < 0.01 (2-tailed)
As can be seen in Table 16 Pearson correlations revealed that the CTS General Therapeutic Skills subscale correlated highly with both the CTS-Psy General Skills and Specific Skills subscales, as well as the CTS-Psy overall total. Pearson correlations also revealed high correlations between the CTS Conceptualisation, Strategy and Technique subscale and the CTS-Psy General and Specific Skills subscales as well as the CTS-Psy overall total. Overall, these results indicate a strong positive relationship between the CTS and the CTS-Psy. This finding of the strength of this relationship justifies using just the CTS for the remaining analyses as it has been better validated and does not rely on a check-list of CBT micro-skills as the CTS-Psy does.

3.4.2 The CTS and the WAI-O-S

To investigate the strength of the relationship between the CTS and the WAI-O-S correlations were performed on all ratings of both the CBT and NDRL interventions in relation to both measures’ subscales.

CBT intervention

As can be seen in Table 17, Pearson correlations revealed that the General Therapeutic Skills subscale correlated highly with all of the WAI-O-S subscales. Thus, therapists who were skilled in the general therapeutic skills of CBT were also focused on working towards building an alliance with their clients. In particular, general therapeutic skills had their greatest impact on agreement on the tasks of therapy.
Table 17

*Pearson correlations between the subscales of the CTS and the WAI-O-S - CBT intervention*

<table>
<thead>
<tr>
<th>CTS Subscales</th>
<th>WAI-O-S Task</th>
<th>WAI-O-S Bond</th>
<th>WAI-O-S Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Therapeutic Skills</td>
<td>.76*</td>
<td>.48*</td>
<td>.61*</td>
</tr>
<tr>
<td>Facilitative Conditions</td>
<td>.72*</td>
<td>.66*</td>
<td>.55*</td>
</tr>
<tr>
<td>Conceptualisation, Strategy and Technique</td>
<td>.62*</td>
<td>.33</td>
<td>.63*</td>
</tr>
</tbody>
</table>

* p < 0.01 (2-tailed)

The Facilitative Conditions subscale correlated highly with all of the subscales on the WAI-O-S. Thus, the more therapists were understanding and interpersonally effective with their clients the stronger an alliance was observed between them. In particular, the facilitative conditions skills had their greatest impact on the tasks of therapy.

The Conceptualisation, Strategy and Technique subscale correlated highly with the WAI-O-S subscales of Task and Goal, but not Bond. Thus, the more skilled the therapists were in the specific skills of CBT the more highly they focused on working towards building an alliance with their clients. In particular, conceptualisation, strategy and technique skills had their greatest impact on the tasks and goals of therapy but did not impact significantly on building a bond with the client.
NDRL intervention

None of the correlations between the Facilitative Conditions subscale of the CTS and the WAI-O-S subscales were significant for sessions of NDRL.

3.5 Variability of the measures over the course of treatment

To investigate whether there was any variation in therapist activities over the course of treatment session numbers were analysed and they could be divided fairly evenly into three stages which were viewed to represent the early, middle and late stages of therapy. The early stage of treatment was considered to include sessions two through to four, the middle stage of treatment was considered to include sessions five through to nine and the late stage of treatment was considered to include from sessions 10 onwards. For the CBT intervention there were 11 sessions rated in the early stage of treatment, 11 sessions rated in the middle stage of treatment and 10 sessions rated in the late stage of treatment.

To determine if there were any statistically significant differences between the means of the measures’ items across the three stages of treatment in the CBT intervention, a Multivariate Analysis of Variance (MANOVA) was performed independently for each measure. The stages of treatment served as the three levels of the independent variable whilst the items or subscales served as the dependent variables.
3.5.1 The CTARPAS

For the CBT intervention on the CTARPAS the main effect of stage was found to be significant giving an ‘exact’ (Wilks’ Lambda) $F(18, 42) = 1.99$, $p = 0.05$. Subsequent univariate analyses showed that three CTARPAS items’ means, ‘Problem list and goals’ ($F = 3.34$), ‘Formulation work’ ($F = 5.58$) and ‘Relapse prevention’ ($F = 3.53$), significantly ($p < .05$) varied over the stages of treatment. Figure 1 illustrates the variations in these three CTARPAS item means over treatment.

Figure 1

*Significant CTARPAS item means’ variation over treatment stage – CBT intervention*

As can be seen in Figure 1, therapists delivering the CBT intervention initially focused ‘quite frequently’ on ‘Problem list and goals’ and as treatment progressed to the middle and late stage less focus was on this activity and it was
on average rated as merely ‘present’. This pattern is similar with the activity of ‘Formulation work’ with therapists in the early stages concentrating on this frequently and as treatment progressed to the middle and late stage focus was gradually lessened until it was an activity that was only just present in the late stages. The activity of ‘Relapse prevention’ in the early stages was not very frequent, not being focused on enough to be considered a dose by therapists, and during the middle stages was rarely focused on, however in the late stages of treatment this activity was frequent.

3.5.2 The CTS

For the CBT intervention, when rated on the CTS, the main effect of stage was found to not be significant, $F (34,26) = 1.28, \ p = .26$, that is, the stage of treatment made no difference to the focus that therapists gave to the activities rated by the CTS.

3.5.3 The WAI-O-S

For the CBT intervention on the WAI-O-S the main effect of stage was found to not be significant, $F (24,36) = 1.11, \ p = .38$, that is, the stage of treatment made no difference to the therapeutic alliance observed between therapists and participants.
3.6 Comparisons between the CBT and the NDRL interventions

To allow comparison between the CBT and the NDRL interventions on the measures, ratings for all sessions for each participant were averaged, thereby ensuring that the data in the analyses were independent and not multiple scores for each participant. This resulted in $n = 11$ for the CBT intervention and $n = 10$ for the NDRL intervention. Due to the NDRL sessions scoring very low on all of the CTARPAS items, the CTARPAS items were not included in this analysis. The CTS was compared on its two subscales, the Facilitative Conditions subscale and its overall total and the WAI-O-S on its three subscales and overall total. Table 18 shows the averaged means and standard deviations (SD) for the CBT and NDRL interventions on the CTS and WAI-O-S subscales.

To determine if there were any statistically significant differences between the CBT and NDRL interventions on the CTS and the WAI-O-S, independent MANOVAs were performed with intervention allocation serving as two levels of the independent variable whilst the measures’ subscale scores (averaged for each client) served as the dependent variables.
Table 18

*Averaged means and SD’s for the CTS and WAI-O-S – CBT and NDRL interventions*

<table>
<thead>
<tr>
<th>Item Measure</th>
<th>CBT</th>
<th>NDRL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>CTS General Skills</td>
<td>24.84</td>
<td>3.95</td>
</tr>
<tr>
<td>CTS Conceptualisation, Strategy and Technique</td>
<td>21.69</td>
<td>4.01</td>
</tr>
<tr>
<td>CTS Facilitative Conditions</td>
<td>10.12</td>
<td>1.31</td>
</tr>
<tr>
<td>CTS Overall Total</td>
<td>46.53</td>
<td>7.63</td>
</tr>
<tr>
<td>WAI-O-S Task</td>
<td>18.88</td>
<td>3.47</td>
</tr>
<tr>
<td>WAI-O-S Bond</td>
<td>22.95</td>
<td>3.24</td>
</tr>
<tr>
<td>WAI-O-S Goal</td>
<td>20.76</td>
<td>4.14</td>
</tr>
<tr>
<td>WAI-O-S Overall Total</td>
<td>62.59</td>
<td>9.60</td>
</tr>
</tbody>
</table>

3.6.1 The CTS

The main effect of intervention allocation on the General Therapeutic Skills and Conceptualisation, Strategy and Technique subscales were found to be highly significant, $F(4,16) = 81.47, p = 0.05$, that is, the type of intervention made a difference to how highly therapists were rated on the CTS.

The main effect of intervention allocation on the Facilitative Conditions
subscale was found to not be significant, $F(4, 16) = 1.70, p = 0.05$, that is, the type of intervention made no difference to how highly the therapists were rated on the activities of ‘Understanding’ and ‘Interpersonal effectiveness’.

### 3.6.2 The WAI-O-S

The main effect of intervention allocation was found to not be significant, $F(4, 16) = .61, p = .66$, that is, the type of intervention made no difference to how highly the therapists were rated on the subscales of Task, Bond and Goal, as measured by the WAI-O-S.
Discussion

The following discussion will first address the experimental aims and hypotheses of this study. Following this there will be a discussion of issues with respect to methodological limitations and strengths. Implications for future directions will be explored before discussing the overall conclusions of this study.

4.1 Discussion of Aims and Hypotheses

4.1.1 Treatment fidelity

This was the first study to comprehensively investigate treatment fidelity (therapist adherence, therapist competence and treatment differentiation) in a randomised controlled trial of CBT and a control psychotherapy, NDRL, for the at-risk for psychosis population. Treatment fidelity was assessed using a combination of four measures, the CTARPAS, the CTS, the CTS-Psy, and the WAI-O-S.

4.1.2 The CTARPAS

CBT intervention

The inter-rater reliability for the nine individual items of the CTARPAS were excellent, ranging from .80 to .98 for a single rater and .89 to .99 for two raters. Thus, it was estimated for a single rater that 64-96% of the variance in CTARPAS scores was attributable to differences in adherence across sessions. The remaining variability (4-36%) is attributable to error. The major source of error most likely results from different raters relying on different aspects of a
therapist’s behaviour to make their ratings. The abundance of behaviour and activities by a therapist in a single session no doubt contributes to this. As Startup et al. (2002) recognised, assessing whether a measure’s items can be rated reliably is a challenging and time-consuming task as ratings applied to sessions of a single therapeutic modality require sensitivity to variations between sessions of the same kind. Despite this difficulty it was found that the inter-rater reliabilities of the CTARPAS items were excellent and could be rated reliably as hypothesised. This finding suggests that this new measure, the CTARPAS, was adequate to reliably investigate the therapeutic components of the French and Morrison (2004) CBT intervention.

Therapists delivering the CBT intervention had low mean scores on all of the CTARPAS items, suggesting that therapists did not engage very extensively in the activities described by the CTARPAS items and thus the French and Morrison (2004) approach. If a therapist activity was rated as present and adherent in sessions it occurred rarely. The activity that was most often engaged in by therapists was ‘Formulation work’, which had a frequency mean of 2.84 (out of a possible score of seven). The French and Morrison (2004) model is essentially a formulation driven approach in which a formulation is presented to the client as a useful way for them to understand their problems and to help guide them in solving them. This use of formulation has the potential to enhance engagement between the therapist and the client. Thus, it makes sense that therapists engaged in this activity at a ‘Quite frequent’ level, which is defined as - ‘Occurred once for a significant period, or briefly on a few occasions throughout the session’.
‘Problem list and goals’ was the second most commonly engaged in activity by therapists, with a frequency mean of 1.91. French and Morrison (2004) view the development of a problem list and goals in a collaborative manner as being of vital importance as it can greatly assist in guiding the direction of therapy, and it allows the client to express what they would like therapy to assist with. Thus again it is understandable that this activity was one that therapists were rated as engaging in often. The frequency of both these activities was lower than might be expected, though there were significant variations in the amount of these activities over the course of therapy (see below). The remaining CTARPAS items describing the other seven main activities described in French and Morrison’s (2004) model rarely occurred in the sessions that were rated. In fact, these items on average were not rated as being present enough in the sessions to be considered a dose of therapy, that is, all of their means were scored as being below one. These results were unexpected as activities such as ‘Normalising’ and ‘Generating and evaluating alternative explanations’ are very important when working with a young at-risk population.

Several possibilities may help explain why low mean item scores were observed on the CTARPAS and assist in putting these findings into perspective. The wording of most items on the CTARPAS is explicit about the therapist activity being in relation to psychotic and attenuated symptoms. For example, the ‘Normalising’ item states “Did the therapist help the client to recognise that his/her schizotypal experiences are similar to the experiences of individuals who do not have psychological disorders?” In this case, if a therapist engaged in the
activity of normalising a symptom that was neither a psychotic symptom nor an attenuated symptom then they would not be given a rating on the frequency scale no matter how extensive a focus this may have been for that particular session. Sessions such as this cannot earn high ratings on the CTARPAS. As discussed in more detail later in this chapter, clients in the DEPTh project rarely discussed psychotic or attenuated symptoms, thus this would have contributed significantly to lower mean item scores if time within sessions was focused on issues other than psychotic or attenuated symptoms.

Another reason why there were low mean item scores on the CTARPAS is that there was no expectation that therapists would engage in each of the nine activities rated on the CTARPAS in each session and, even if they were able to, they would not be able to gain high frequency ratings on all items. In fact, it is impossible for a therapist to be rated highly on even a few activities due to the CTARPAS assessing the frequency of activities. For example, if a therapist engaged in developing a problem list and goals with a client for most of a session, they would first be rated as adherent for the item of ‘Problem list and goals’ on the adherence scale and then they would be rated as a ‘5’ on the frequency scale. Thus, there would be no opportunity for the therapist to engage in any other activity to a high frequency. Other research utilising similar adherence scales have also found low mean item scores. Rollinson et al. (2008), in their study on CBT for psychosis using the Revised Cognitive Therapy for Psychosis Adherence Scale (R-CTPAS), found that the highest mean item score was for ‘Assessing psychotic experiences’ at 1.25 (out of a possible score of 7). The mean item scores for ‘Developing a model of psychosis’ was 1.00 and for ‘Verbal challenge of
delusions’ was 0.18. Although these examples encompass three activities that would be considered to be very central to CBT for psychosis, their mean scores were relatively low. Low item means were also found in Sensky et al.’s (2000) study when Rollinson et al. (2008) rated sessions on the R-CTPAS; the ‘Assessing psychotic experiences’ item mean was only 0.81 and ‘Developing a model of psychosis’ item mean was only 0.40. These two examples illustrate that even with therapist activities that are seen as pivotally important to the clinical group that the therapist is working with, it is not uncommon for item mean scores to be low and for variation to occur between different research teams on item means even when following similar therapy manuals.

The French and Morrison (2004) model is strongly oriented around helping the client understand and address their brief psychotic and attenuated psychotic symptoms. Impressions from the investigator, her supervisor, and the therapists themselves were that the majority of clients in the DEPTh project rarely discussed attenuated symptoms or any concerns related to psychosis. Common themes that clients discussed were predominated by anxiety, depression, low self esteem, and relationship issues. There were only three participants in the project who consented to participate in this study that met criteria for ARMS Group C (BLIPS Group). Thus, there were only a small number of participants who had actually experienced recent frank psychotic symptoms that they may have been motivated to discuss. Another possibility that may help to explain why clients in the DEPTh project rarely discussed their attenuated symptoms may be due to them having impaired levels of insight, which may reflect a psychological process
of denial or of minimising their symptoms as a way of coping. McGlashan, Levy and Carpenter (1975) referred to this coping strategy as ‘sealing over’, implying that individuals who engage in this coping style are less likely to attempt to understand their symptoms and are less curious about their experiences. However, we have no direct evidence to support this proposal at present.

It will be of major interest, once findings from the EDIE-II project are available, to make comparisons between these two projects and to investigate whether CTARPAS adherence ratings on the EDIE II project are similar or different to the ratings found in the DEPTh project. However, as discussed earlier in relation to Rollinson et al. (2008) and Sensky et al.’s (2000) research, it is not uncommon for there to be variations between different research centres on adherence ratings even when following similar therapy manuals.

The hypothesis that specific therapist activities, as rated by the CTARPAS, would vary over the stages of treatment was supported. It was found that three activities, ‘Problem list and goals’, ‘Formulation work’, and ‘Relapse prevention’ significantly varied in frequency over the stages of the DEPTh therapy. Therapists initially focused ‘quite frequently’ on ‘Problem list and goals’ and as sessions progressed focus gradually decreased until in the later stages of therapy it was rated as merely ‘present’. This pattern makes sense since devising a problem list is one of the main activities that therapists initiate at the start of therapy to aid in engagement with the client, due to it being a collaborative process and it serving as a guide for the remainder of therapy. As therapy progresses less focus is needed
on the problem list or goals as they have already been established and therapy
shifts to being more involved with activities that are directed towards helping the
client move towards their goals. A similar pattern was observed with the activity
of ‘Formulation work’, with therapists concentrating on this activity frequently in
the early stages and, as therapy progressed, this activity became less frequent.
This pattern is understandable since French and Morrison (2004) guide therapists
to develop a collaborative formulation with their client early in therapy, basing
this formulation on the cognitive model that informs the particular disorder or
problems of the individual client. This formulation then provides a strategy for
dealing with the issues on the client’s problem list. The activity of ‘Relapse
prevention’ was barely present in the early stages of therapy and in the middle
stages frequency decreased even further until the later sessions where it increased
in frequency and became more present. Relapse prevention is a core component of
French and Morrison’s (2004) approach, as it is for any type of CBT intervention.
However, it is an activity that is commonly focused on in the later stages of
therapy as it draws together information learnt throughout therapy about the
client’s early warning signs, and the coping strategies that they have found helpful
and unhelpful, in an effort to prevent future relapse. Startup and Shapiro (1993a),
in their research involving the dimensionality of therapist activities in CBT for
depression, found evidence for that the stage of therapy accounted for a significant
percentage of the variance in the adherence measure that they used. The different
patterns of variation that they found were congruent with Beck et al.’s (1979)
advice to use behavioural methods early in treatment to help foster engagement
before moving on to focus on more specifically cognitive-focused activities. However this pattern was not observed in this study.

**NDRL intervention**

As hypothesised, therapists, when they delivered the NDRL intervention, did not engage in any proscribed activities as measured by the CTARPAS.

**4.1.3 The CTS**

**CBT intervention**

As hypothesised, the inter-rater reliability for the two CTS subscales and overall total were excellent in the CBT intervention, all having identical inter-rater reliabilities of .87 for one rater and .93 for two raters. Individual CTS items’ inter-rater reliabilities ranged from .55 to .91. For the ‘Facilitative Conditions’ subscale reliability was lower at .68 but still considered a good level. Varying levels of reliability when using the CTS have been found in previous research. Research by Dobson et al. (1985) found an excellent inter-rater reliability of .94 for overall CTS total. Williams, Moorey and Cobb (1991), in their research assessing the competency of trainee therapists in a CBT training course, found an inter-rater reliability of .92 for overall CTS total. Jackson et al. (2008), in their research investigating CBT versus a Befriending therapy with a first episode psychosis group, found an inter-rater reliability of .94 for overall CTS total. Vallis et al. (1986), in their study of the CTS psychometric properties using expert raters assessing CBT for depression, found a moderate inter-rater reliability of .59 for overall total, and reliability for individual items ranged from .27 to .59. Thus, the
excellent inter-rater reliability for the CTS overall total found in the DEPT project was on par with the best results that have been obtained in other studies that have utilised this measure.

As hypothesised, the CTS subscale scores indicated that the CBT carried out within the DEPT project was competent cognitive therapy as defined by the CTS rating manual (Young & Beck, 1980), with therapists scoring an average of two or above on each subscale. The total overall mean score was 46.7, the ‘General Therapeutic Skills’ subscale mean score was 25.0, and the ‘Conceptualisation, Strategy and Technique’ subscale mean score was 21.7. The Academy of Cognitive Therapy advises that the mean cut off score for determining competency in cognitive therapists who participate in outcome research, and the passing score for certification by the Academy, is 40 (Sudak et al., 2003), and therapists in the DEPT project scored above this. Previous studies have found varying levels of competency when using the CTS. Jackson et al. (2008) found an overall mean of 38.5 for therapists involved in their trial. Sensky et al. (2000) found an overall mean of 45.8 and Shaw et al. (1999), in their trial of CBT for depression, found an overall mean of 42. Overall, therapists in the DEPT project scored very highly on the CTS and obtained higher scores than other therapists have in previous research using the CTS.

As hypothesised, therapists delivering the CBT intervention were highly competent in the skills of ‘Understanding’ and ‘Interpersonal effectiveness’ that contributed to the ‘Facilitative Conditions’ subscale, with means equaling 5.00
and 5.28 respectively, representing close to perfect scores. The fostering of a sense of understanding between the therapist and client and the ability of the therapist to be able to communicate this by verbal and non-verbal means, in addition to the therapist displaying high levels of warmth, concern, confidence, genuineness and professionalism, are central components of CBT (Beck et al., 1979).

DEPTh therapists delivering CBT were considered most competent in the skills of ‘Interpersonal effectiveness’ and ‘Understanding’. As stated previously, therapists were rated as competent on all skills measured by the CTS due to scoring two and above on each item (Young & Beck, 1980). Nevertheless they scored their lowest competency ratings on the skills of ‘Homework’, ‘Agenda’ and ‘Feedback’. This finding was unexpected as these three activities are considered essential components of effective CBT and are skills that are relatively simple to execute in a practical sense (Beck, 1995).

As hypothesised, there were no significant variations in competency ratings on the CTS over the course of therapy. This was expected as the skills that the CTS measures should be delivered to a similar degree in each session of CBT and throughout therapy.

**NDRL intervention**

The inter-rater reliability for the ‘Facilitative Conditions’ subscale was only fair at .44 in the NDRL intervention, which was an unexpected finding. On
closer examination of the subscale, the reliability for ‘Interpersonal effectiveness’ was good at .62. However, the reliability was .00 for ‘Understanding’. The ratings on the nine NDRL sessions from both independent raters revealed little variability, and high ratings (a minimum of four) were given by both raters. Due to this low variability in a small sample, differences, when they occurred, unfortunately affected the reliability coefficient disproportionately.

Startup and Shapiro (1993b), in their research on therapist treatment fidelity in prescriptive versus exploratory psychotherapy, highlighted that non-specific facilitative conditions are inherently more difficult to rate and commonly show higher rater biases than ratings on more specific activities. In their study they found that the facilitative conditions scale’s inter-rater reliability was much lower than the other scales and concluded that 25% of the variance on this scale was most likely due to rater bias. Hill et al. (1992) also found a similar result in the TDCRP when investigating sources of rater bias in the treatment phase. They found that ratings on the facilitative condition items were highly related to how much the raters liked and felt similar to both therapist and client. It is likely that similar effects occurred within this study.

As hypothesised, therapists delivering the NDRL intervention were rated as highly competent on the ‘Facilitative Conditions’ subscale, achieving nearly perfect mean scores of 5.57 and 5.17 respectively on the items of ‘Interpersonal effectiveness’ and ‘Understanding’. The overall mean total score on the CTS was 12.4. The most similar type of therapy that allows a comparison between this
result for the NDRL intervention and previous research using the CTS is the intervention of Befriending. Jackson et al. (2008) in their research found that therapists delivering a Befriending intervention had an overall mean of 15.9 on the CTS and Sensky et al. (2000) found an overall mean of 16.2 with their therapists delivering a Befriending intervention. In the DEPTh project the ‘ideal’ score for the NDRL intervention on the CTS would be 12 due to the maximum score on both the ‘Understanding’ and ‘Interpersonal effectiveness’ items being six. Thus, scores less than 12 would indicate less than optimum facilitative conditions, and scores greater than 12 would indicate the intrusion of activities which were proscribed in NDRL. Thus, therapists in the DEPTh project with a mean of 12.4 in the NDRL intervention scored close to ideal.

As hypothesised, there were no significant variations in competency ratings, as measured by the ‘Facilitative Conditions’ subscale, over the course of therapy. This was expected as the skills of ‘Understanding’ and ‘Interpersonal effectiveness’ that this subscale measures should be delivered to a similar degree across all stages of therapy and should be present in each NDRL session.

**Comparison between the CBT and NDRL interventions**

As hypothesised, there was a significant difference found between the CBT and NDRL interventions on the CTS ‘General Therapeutic Skills’ and ‘Conceptualisation, Strategy and Technique’ subscales. As hypothesised, there was no significant difference between the CBT and NDRL interventions on the ‘Facilitative Conditions’ subscale. Therapists, regardless of intervention, were
understanding and interpersonally effective with their clients. Therefore, the aim of the designers of the DEPTh trial, that therapists’ non-specific facilitative activities would be equalised in the two treatments, was satisfied. Thus, any differences in the outcomes of the two treatments, if there should be any, will not be attributable to differences in these activities.

4.1.4 The CTS-Psy

CBT intervention

As hypothesised, the inter-rater reliability for the two CTS-Psy subscales and overall total were excellent in the CBT intervention. For one and two raters the inter-rater reliability for the ‘General Skills’ subscale was .89 and .94 respectively, for the ‘Specific Skills’ subscale .96 and .98 respectively, and for overall total .96 and .98 respectively. Individual CTS-Psy items’ inter-rater reliabilities ranged from .38 to .96. Previous findings of reliability when using the CTS-Psy have found varied results. Haddock et al. (2001), in the standardisation study for the measure, using data from four raters who had received intensive training on the CTS-Psy, found the inter-rater reliability for the ‘General Skills’ subscale to be .95, .80 for the ‘Specific Skills’ subscale, and .94 for overall total. Lewis et al. (2002), in a study investigating CBT versus supportive counselling for early schizophrenia, found an inter-rater reliability for overall total to be 0.93, and Tarrier et al. (2004), in a similar study but with participants being inpatients suffering from an acute episode of schizophrenia, found an inter-rater reliability for overall total to be 0.93. Gordon (2006) used the CTS-Psy to assess trainee therapists using CBT with psychotic clients and found a low inter-rater reliability
of .28 for overall total. Thus, the excellent inter-rater reliabilities for the CTS-Psy subscales and overall total found in the DEPTh project were as good as the best results that have been obtained in other studies that have utilised this measure.

The inter-rater reliability for the ‘Facilitative Conditions’ subscale was fair at .47 for one rater and good for two raters at .64. The possible causative factors for this finding are most likely what was discussed previously in this chapter in relation to the findings for the inter rater reliability for the ‘Facilitative Conditions’ subscale on the CTS. That is, facilitative conditions are inherently more difficult to rate and commonly show higher rater biases than ratings on more specific activities (Startup & Shapiro, 1993b). In addition, ratings on facilitative condition items may be related to how much the raters like and feel similar to both therapist and client, as suggested by Hill et al. (1992).

DEPTh therapists delivering the CBT intervention scored highly on the CTS-Psy subscale scores and overall total; the ‘General Skills’ subscale had a mean of 22.7 (out of a possible score of 30), the ‘Specific Skills’ subscale a mean of 21.6, and an overall mean of 44.3. There exist no formal guidelines or cut-off scores for what is considered to be competent therapy when using the CTS-Psy. Previous research in studies utilising the CTS-Psy have found differing levels of skill acquisition. Haddock et al. (2001) found a ‘General Skills’ subscale mean of 20.3, a ‘Specific Skills’ subscale mean of 13.2 and an overall mean of 33.5. Both Lewis et al. (2002) and Tarrier et al. (2002) found a ‘Specific Skills’ subscale mean of 20.7 in their research into CBT versus supportive counselling for early
schizophrenia and inpatients suffering acute episodes of schizophrenia respectively. Thus, compared to previous research utilising the CTS-Psy, the DEPTh therapists performed very competently and scored higher on the CTS-Psy in comparison to other studies that have utilised this measure.

As hypothesised, DEPTh therapists delivering the CBT intervention were rated as highly competent in the skills of ‘Understanding’ and ‘Interpersonal effectiveness’ that contribute to the ‘Facilitative Conditions’ subscale, almost scoring perfect scores with means of 5.97 and 5.91 respectively. Therapists were skilled at conveying a sense of understanding to the client by rephrasing or summarising, by showing sensitivity through the reflection of feelings and ideas, having an empathic tone of voice, acknowledging the client’s viewpoint as valid and important and, if differences occurred, therapists were able to acknowledge and respect these. Therapists were highly interpersonally effective by appearing open to the client, communicating clearly with warmth, concern and caring in what they said, not criticising or disapproving of the client’s behaviour or point of view, being able to respond to and display humour when appropriate, and being able to both lead and listen, as appropriate, in the session.

DEPTh therapists delivering the CBT intervention were considered most competent in the skills of ‘Understanding’, ‘Interpersonal effectiveness’, and ‘Guided discovery’. Therapists scored the lowest competency ratings on the skills of ‘Feedback’, ‘Collaboration’ and ‘Homework’. This finding is unexpected since
these skills are important components of CBT. This finding was similar to the skills that therapists were assessed as least competent in on the CTS.

As hypothesised, there were no significant variations in competency ratings on the CTS-Psy over the course of therapy due to the therapists being rated as competent and thus delivering these skills to a similar degree in each session of CBT throughout the course of therapy.

**NDRL intervention**

The inter-rater reliability for the ‘Facilitative Conditions’ subscale was poor at .32, which was an unexpected finding and one that was similar to the reliability on the CTS in the NDRL intervention. On closer examination of the subscale, the reliability for ‘Interpersonal effectiveness’ was fair at 0.43, however it was .00 for ‘Understanding’. The ratings on the nine NDRL sessions from both independent raters revealed little variability and nearly perfect ratings were given by both raters. As with the finding with the CTS, it is surmised that due to this low variability in a small sample, any differences, when they occurred, affected the reliability coefficient disproportionately.

As hypothesised, therapists delivering the NDRL intervention were rated as highly competent on the ‘Facilitative Conditions’ subscale, achieving nearly perfect mean scores of 5.91 and 5.35 respectively on the items of ‘Understanding’ and ‘Interpersonal effectiveness’. Ideally, therapists in the DEPTH project would have scored the maximum of six for both the ‘Understanding’ and the
‘Interpersonal effectiveness’ sections plus one for an item of the ‘Collaboration’ section - “Discussion was pitched at a level and in a language that was easily understandable by the client” – making a total of 13. Thus, the ‘Facilitative Conditions’ subscale mean of 11.26 in the NDRL intervention was close to the ideal.

As hypothesised there were no significant variations in competency ratings, as measured by the ‘Facilitative Conditions subscale, over the course of therapy. This was expected as the skills of ‘Understanding’ and ‘Interpersonal effectiveness’ that this subscale measures should be delivered to a similar degree across all stages of therapy and should be present in each NDRL session.

**Comparison between the CBT and NDRL interventions**

As hypothesised there was a significant difference found between the CBT and NDRL interventions on the CTS ‘General Skills’ and ‘Specific Skills’ subscales. Yet, as hypothesised, there was no significant difference between the CBT and NDRL interventions on the ‘Facilitative Conditions’ subscale. Therapists, regardless of intervention, were understanding and interpersonally effective with their clients.

**4.1.5 Correlations between the CTS and the CTS-Psy**

A strong positive relationship was found between the CTS and the CTS-Psy. Despite these scales being very similar in many aspects, there are also many differences, as have been discussed in the Introduction chapter. The main
differences exist in some of the therapist skills addressed, the client population for whom they are targeted, and their very different scoring systems. Gordon (2006) considers the CTS to be more accurate in portraying a therapist’s skill level because its competence rating scale allows a rater to feel that they are making a comprehensive judgement of the therapist’s ability. In contrast, the CTS-Psy is seen as easier to use and less subjective because it simply checks for the presence of specific therapist behaviours (Gordon, 2006). This may be the first study to examine the level of agreement between these two measures as no research on comparative data could be found in the literature. The high level of agreement that was found supports the concurrent validity of the CTS-Psy.

The strong relationship that was found between these two measures is an important finding. The impression of the investigator is that the CTS-Psy is a very helpful and useful competence scale in practice. In this particular study it assisted her significantly, especially in the early phases of the study, with making ratings due to the specific guidance it gave (through the list of micro skills) for what particular therapist behaviours to be on alert for. It was also helpful, again especially in the early phases of the study, to complete the CTS-Psy first and then complete the ratings on the CTS as it made the CTS easier to complete with the knowledge gained from completing the CTS-Psy. This impression, and the findings of the strength of the relationship between the CTS and the CTS-Psy, has many implications. The CTS-Psy may be able to be used more widely and with a range of mental health disorders. In particular, the CTS-Psy may be a more useful instrument for less experienced researchers to use in studies of CBT with clients.
with a range of mental health disorders. Due to it being a checklist, the CTS-Psy may be especially useful in the training and supervision of therapists since it guides exactly what skills a CBT therapist should be engaging in and highlights what skills they inappropriately omitted.

### 4.1.6 The WAI-O-S

#### CBT and NDRL interventions

The inter-rater reliability on the subscales of the WAI-O-S, for therapists delivering the CBT intervention, was excellent for Goal, Task and overall total, with reliabilities for one rater of .94, .84, and .87 respectively. The inter-rater reliability for Bond was lower at .66 for one rater, but this still represented a good level of reliability. The inter-rater reliability for therapists delivering the NDRL intervention was excellent for Task, Goal and Overall total, with reliabilities for one rater of .97, .94, and .94 respectively. The inter-rater reliability for Bond was only fair at .56 for one rater. As hypothesised, reliabilities overall were high for the WAI-O-S in the CBT and NDRL interventions; however the lower reliabilities for the subscale of Bond in both interventions was unexpected. On closer examination of the WAI-O-S item ratings that make up the Bond subscale, both raters scored therapists highly on each item. In actuality only 1.5% of these item ratings were rated as occurring less than ‘sometimes’. Thus the majority of the positively worded statements relating to Bond were scored as occurring ‘often’, ‘very often’ or ‘always’. There was little variability observed between the raters’ scores, thus differences when they did occur would have affected the reliability coefficient disproportionately. Bond is also a more non-specific construct when
compared to Task and Goal, which are both more specific and easier to identify. As discussed earlier in this chapter, non-specific factors are inherently more difficult to rate and commonly show higher rater biases than more specific factors (Startup & Shapiro, 1993b).

Previous findings on reliability when using the short-form of the WAI-O could not be found. There has been research on reliability when using the full 36-item version of the WAI-O which can allow us some comparison to the findings from this study. However, in comparing a shorter scale to a longer scale caution should be employed as reliabilities do tend to be higher for longer scales (Gregory, 2000). Martin et al. (2000), in a meta-analytic review of therapeutic alliance and outcome in 22 studies, found that the average inter-rater reliability for the WAI-O overall total was excellent at .92. This was similar to Hanson, Curry, and Bandalos’ (2002) research into the reliability generalisation of five versions of the WAI; they concluded that, in general, reliability estimates of WAI scores appear to be robust and mean reliability estimates for overall total ranged in a sample of studies from .79 to .97, with a modal estimate of .92. Startup, Wilding, and Startup (2006), in their research on patient treatment adherence in CBT for acute psychosis, found adequate inter-rater reliabilities of .71, .67, and .63 for the WAI-O subscales of Bond, Task and Goal respectively. Fenton, Cecero, Nich, Frankforter and Carroll (2001), in their research on the validity of working alliance instruments in CBT or 12-step facilitation for substance users, found a reliability of .70 for the WAI-O overall total. Unfortunately no direct comparisons can be made to this previous research because this study used the shortened
version of the WAI-O, but it does allow some comparison and it indicates that reliability for this study compared fairly well with other research utilising the WAI-O.

On the WAI-O-S, therapists delivering the CBT intervention were rated highest on the Bond subscale, with an item mean of 5.9, which indicated that the therapist and client ‘often’ to ‘very often’ agreed on items of Bond. This was followed by the Goal subscale with a mean of 5.4 (‘often’ agreed on items of goal) and the Task subscale with a mean of 4.9 (‘sometimes’ to ‘often’ agreed on items of task). The overall total item mean for the CBT intervention was 5.4.

Therapists delivering the NDRL intervention showed exactly the same pattern, being rated highest on the Bond subscale with a mean of 6.2 (‘very often’ agreed on items of task), followed by Goal with a mean of 5.1 (‘often’ agreed on items of goal) and then Task with a mean of 5.0 (‘often’ agreed on items of task). The overall total item mean for the NDRL intervention was 5.4. Normative data for the WAI-O-S could not be found in the current literature to enable direct comparisons; however, data from other studies that used the WAI-O 36-item version for CBT could be used for comparison with the findings from this study, however no research could be found utilising NDRL interventions for comparison. To allow comparison, data from studies that used the 36-item version were divided by 12 for the WAI-O subscales and 36 for the WAI-O total. Raue and Goldfried (1994) found an overall total mean of 6.4 in their study on the working alliance using CBT and Fenton et al. (2001) in their study found an overall total mean of 4.4. Startup et al. (2006), in their study on CBT for
psychosis, found for the participants that completed treatment item mean scores of 6.2 for Bond, 5.7 for Task, and 5.7 for Goal. Thus, overall, compared to previous research using the WAI-O for CBT, therapists in the DEPTh project were considered to have performed similarly well in building an alliance with their clients.

There were no significant differences found between the CBT and NDRL therapist ratings on any of the subscales of the WAI-O-S; in fact means were very similar for both interventions on each subscale and overall total. This was as hypothesised for the Bond subscale, as both forms of intervention view forming a therapeutic bond with the client as central and necessary to forming an alliance and having a positive therapeutic relationship. However it was expected that there would be some difference between interventions on the Task and Goal subscales between the interventions but this was not supported. It was expected that therapists delivering the CBT intervention would be rated higher in comparison to therapists delivering the NDRL intervention on the subscales of Task and Goal due to the nature of CBT compared to NDRL. NDRL is a person-centered approach and its main technique, empathic reflection, is used non-contingently, and not used to focus on behavioural changes. CBT, by contrast, is an intervention that focuses on building with the client a mutual agreement on goals and the therapeutic methods to achieve these goals, and is strongly focused on behavioural change. A CBT intervention provides a clear structure in sessions and therapists strive to make the therapeutic tasks and goals explicit and clear to clients. So it is surprising that the subscales of Task and Goal were not rated higher in the CBT
intervention. Perhaps in the NDRL intervention it is implicit, rather than explicit, that what clients choose to discuss should be personally meaningful, should be focused on their problems, and that the intervention, through its depth of exploration, will lead to their implicit goal of improving particular problems in some way. Clients in the NDRL intervention may have felt a sense of being on task and working towards goals without it being explicitly said by the therapist or discussed explicitly between themselves and the therapist.

Contrary to expectation, there were no significant variations in WAI-O-S subscale ratings for either intervention over the stages of therapy. The development of a working alliance is expected to take some time and it was thought that the Bond subscale ratings in particular would increase as therapy progressed, however no evidence was found for this. Therapists in both interventions were rated highly on all subscales of the WAI-O-S from session two onwards.

**The WAI-O-S and the CTS**

A strong relationship was found between the CTS and WAI-O-S with therapists delivering the CBT intervention. The ‘General Therapeutic Skills’ subscale correlated highly with all of the subscales of the WAI-O-S, particularly with Task. Therapists who were skilful in the general therapeutic skills of CBT (agenda, feedback, understanding, interpersonal effectiveness, collaboration, and pacing and efficient use of time) also placed importance on building an alliance with their clients. The ‘Facilitative Conditions’ subscale also correlated highly
with all subscales of the WAI-O-S, particularly Task. The more skilled therapists were in being understanding and interpersonally effective with their clients, the stronger an alliance was observed between them. The ‘Conceptualisation, Strategy and Techniques’ subscale only correlated highly with the WAI-O-S subscales of Task and Goal, not Bond. The more skilled therapists were in the specific skills of CBT (guided discovery, focusing on key cognitions or behaviours, strategy for change, application of cognitive behavioural techniques and homework) the more impact this had on agreement on the tasks and goals of therapy. However, since these findings were merely correlational, the direction of causation cannot be determined. Another way to interpret these collective findings, then, is that the more clients were ready to agree on the tasks and goals of therapy and contribute to a positive therapeutic bond the easier it was for therapists to deliver the general and specific skills of the CBT intervention.

None of the correlations between the ‘Facilitative Conditions’ subscale of the CTS and the WAI-O-S were significant in the NDRL intervention. This can be explained partly by the low inter-rater reliability of the ‘Facilitative Conditions’ subscale. In addition, the non-significant correlations might also be partly explained by the fact that, in the NDRL intervention, the direction of the session is wholly determined by the client. Thus, if the client chooses to spend sessions discussing unproductive issues, or engaging in superficial conversation, despite good facilitative conditions being provided by the therapist, then this will most likely impact on the observer ratings of the WAI-O-S. For example, the investigator rated a number of sessions of a client who was in the NDRL
intervention and every session discussed no issues or topics with the therapist other than his hobby of computer games. The therapist was rated very highly on the ‘Facilitative Conditions’ subscale of the CTS as he displayed competent understanding and interpersonal effectiveness skills at all times with this client. However, on the WAI-O-S the investigator could not rate the therapist very highly on items pertaining to agreement on the tasks and goals of therapy as there was none. Despite this it still would have been expected that the WAI-O-S subscale of Bond would have correlated highly with the ‘Facilitative Conditions’ subscale. Thus the reason for the non-significant correlation is unclear.

4.2 Methodological limitations

An unexpected occurrence was the small number of participants that could be recruited within the timeframe of this study. It is unclear what factors impacted on this as the DEPTTh project was well advertised within and between the public health facilities, General Practitioners (GPs), private practitioners and the schools and universities of the areas, and the projected numbers that were initially anticipated within the Hunter region of New South Wales were based on previous years’ intakes at the service involved. Analyses that were planned but could not be undertaken due to a small sample size included investigating whether there was any relationship between gender, age and therapist (such as level of experience) on the dependent variables.
A potential factor impacting on the difficulties in recruiting for the DEPTh project is the possibility that currently there exists a smaller ‘pool’ of the at-risk population to draw from. The service PAS (urban arm of the DEPTh project) was established in 1997 as a specialist clinical service whose primary function was to identify and treat young individuals at-risk of psychosis. For the past 11 years PAS has established and maintained strong links with many referral points throughout its geographical catchment area. Initially when this service was established, individuals that were referred presented with varying lengths of duration of untreated prodromal symptoms (DUPS). However, as the years have progressed knowledge of the risk factors for psychosis has increased within the community, and in referral services, and there is now an appropriate targeted specialist clinical service to refer these individuals to for assessment and treatment. It is therefore likely that individuals with longer DUPS have either transitioned to psychosis or been seen by PAS in the past. Thus, the current ‘pool’ of potential at-risk individuals most likely have shorter DUPS. Yung et al. (2007) investigated this possibility occurring at the PACE clinic in Melbourne, Australia. Their research found a declining transition rate amongst individuals referred to PACE between the years of 1995 and 2000, with each successive year showing a rate 0.80 times that of the previous year. Yung et al. (2007) found that this decreased transition rate was in part explained by a reduction in the duration of symptoms of individuals prior to receiving help, that is, a shorter DUPS. They concluded that at-risk individuals are being detected and provided with care earlier than in the past.
Another unexpected finding was the large number of participants in the rural area that did not consent to their sessions being recorded, which resulted in a large loss of data that could have been utilised and the sample for this study reducing even more. This also resulted in an aim of this study being unable to be investigated, the impact of urban versus rural location on treatment fidelity. It is unclear what contributed to this occurrence as very few participants in the urban arm of the study declined for their sessions to be recorded.

Another limitation of this study was the uneven representation of participant numbers in relation to ARMS groups. Three participants met criteria for ARMS Group A (Vulnerability group), 14 participants met criteria for ARMS Group B (Attenuated psychosis group), three participants met criteria for ARMS Group C (BLIPS group), and one participant met criteria for both ARMS Group A and B. However, ARMS groups are not distributed evenly in the population, as Mason et al. (2004) highlighted in their research. They investigated risk factors for transition to first episode psychosis among individuals with ARMS that were referred to PAS (the referral service and urban arm of the DEPTh project) over a five-year period. A number of individuals fell into more than one category, but of the individuals that fell into a single category it was found that approximately 21% met criteria for ARMS Group A, 52% met criteria for ARMS Group B, and 27% met criteria for ARMS Group C. So, it is not surprising that there were uneven representation of ARMS groups in the DEPTh participants, but what exaggerated the impact of this uneven representation was the less than expected overall small sample number for this study. This impacted on the ability to
undertake certain analyses due to low statistical power. Given the evidence for the relative prevalence of the different ARMS groups in the population, this study needed a much larger sample to conduct the initial planned analyses of the study. These planned analyses were to investigate the impact of ARMS group on several dependent variables, such as adherence ratings on the CTARPAS, competence ratings on the CTS and the CTS-Psy, and alliance ratings on the WAI-O-S.

Low recruitment rates resulting in a small number of participants in the sample, in addition to a number of participants withholding consent for audio recordings of sessions, impacted on the assessment of treatment fidelity in this study. Therefore several sessions from most participants were included in the sample of sessions that were used for treatment fidelity. Since this violates the assumption of independent observations, the probabilities associated with the correlation coefficients in this study’s analyses need to be interpreted cautiously. But it is worth noting that this assumption of independent observation is violated in almost all studies of treatment fidelity because many observations are usually made on a small number of therapists.

A further limitation of this study is the lack of ratings from the EDIE-II project, which makes it difficult to interpret the DEPTH project CTARPAS’ mean scores in a meaningful way. However, as discussed previously in this chapter, it is not uncommon for variations to occur between different research teams on item means of adherence measures even when following similar therapy models (Rollinson et al., 2008; Sensky et al., 2000).
4.3 Methodological strengths

A major strength of this study was that all sessions in the DEPTH project were audio recorded (provided participant consent was given) and random sessions were selected for the assessment of treatment fidelity. This ensured that the therapists did not know which sessions would be selected, which otherwise may have either intentionally or unintentionally influenced their delivery of the given intervention in some way. This aided in precluding a possible fluctuation in treatment fidelity due to the presence or absence of an observer (Perepletchikova et al., 2007).

The existence of a control group allowed for the controlling of non-specific aspects associated with being involved in a therapeutic relationship. For example both interventions provided equivalent contact with an empathic therapist. That therapists provided both forms of the interventions was also a strength of the study as this allowed for ‘static’ therapist effects, such as age, gender, and level of experience, to be controlled for.

As discussed in the Introduction chapter of this thesis Perepletchikova et al. (2007) operationalised adequate procedures for the establishment of treatment fidelity. With the aim of evaluating the extent to which randomised controlled trials address the four domains of treatment integrity (establishing, assessing, evaluating, and reporting) as well as its two main aspects, therapist adherence and therapists competence, Perepletchikova et al. (2007) developed the Implementation of Treatment Integrity Procedures Scale (ITIPS). The ITIPS
consists of 22 items, each rated on a four point scale with total scores ranging from 22 to 88, with higher scores indicating more adequate implementation of fidelity procedures. The 22 items measure the four domains of treatment fidelity – the manner in which it is established (six items), assessed (seven items), evaluated (five items), and reported (four items). Items are also grouped into subscales that address procedures relating specifically to the two main aspects of treatment fidelity: treatment adherence (six items) and therapist competence (six items). Thus, a total of six subscales are derived from the ITIPS items (four domains and two aspects). Perepletchikova et al. (2007) reported high levels of internal consistency and inter rater agreement for the ITIPS. For the four domain and two fidelity subscales, Cronbach’s alphas ranged from .76 to .93 and inter-rater agreement was 0.89. The ITIPS classifies studies as: implementing treatment fidelity procedures inadequately if the study’s total score ranged between 22 and 44; in a manner approaching adequacy if the total score ranged between 45 and 66; and, adequately if the total score exceeded 66.

The investigator evaluated the treatment fidelity procedures utilised in this study and the DEPTH project using the ITIPS and found that the score on the ITIPS fell in the highest range and was thus classified as adequately implementing treatment fidelity procedures. The strengths, as identified by the ITIPS were as follows: adherence and competence were explicitly defined; fidelity was conceptualised in terms of adherence and competence; manuals were specific (even though the CBT intervention was not guided by a manual the approach was at a high level of specificity according to the ITIPS); ongoing supervision of
therapists was provided throughout the study, which provided opportunities for discussing cases and for practice and feedback; assessment of treatment fidelity was in terms of adherence and competence; assessment of therapist adherence and competence both used reliable measures; both the adherence and competence measures controlled for reactivity directly through the audio recording of all sessions; inter rater reliability was assessed; data was collected across treatment phases, therapists and cases; reporting of numerical data was informative of adherence and competence levels; and, the procedures for establishing, assessing, and evaluating fidelity were reported.

The items that did not receive the highest possible score on the ITIPS are useful for highlighting what factors may need to be enhanced for future similar research. The training strategies of the therapists were mostly indirect, that is instruction was provided about both interventions and written materials were provided describing the treatment rationales, scripts, tasks, activities, and procedures. However, more direct training methods would have been ideal, that is, opportunities for practice and rehearsal, role-playing and periodic booster sessions (Perepletchikova et al., 2007). The method of assessing adherence and competence was via direct methods only, that is, the audio recording of sessions. This method would have been more ideal according to Perepletchikova et al. (2007) if there were also indirect methods of assessment such as therapists completing checklists of activities implemented in sessions. The training of raters was mentioned but no specific information pertaining to the utilised training procedures was provided.
4.4 Implications for future directions

The present study highlights the need for further future research into treatment fidelity for the at-risk for psychosis population. Replication of this study on a larger scale would contribute even more knowledge to the area as the smaller than expected sample in this study did limit findings and impacted on the conclusions that could be drawn.

The successful assessment of treatment fidelity that this study reported on will be of great use when the DEPTh project is completed as findings that are extrapolated from the research will be accurate and meaningful. This will aid in further analyses into the impact of adherent and competent CBT and NDRL on outcome. It will be possible to investigate questions such as whether degrees of adherence, competence and/or alliance predict outcome. Trepka et al. (2004) investigated whether competence (as assessed by the CTS) and alliance were related to outcome in CBT for depression and found that both the therapeutic alliance and therapist competence were related to outcome, and that associations with outcome appeared stronger for clients who completed therapy than for those who did not. In light of these findings Trepka et al. (2004) concluded that measurable factors both common to diverse treatment methods and specific to particular treatment methods should be included in efforts to account for therapy outcome in future research. On completion of the DEPTh project, the findings on participant outcome can be interpreted in this light.
Whilst the primary function of the development of the CTARPAS was to reliably assess therapist adherence to the CBT intervention utilised in the DEPTh project, this measure has other potential uses that can be explored in future research. As Startup et al. (2002) recognises, once reliable adherence items for a specific measure have been developed they can be combined in a ‘pick and mix’ fashion so that they can be utilised to assess adherence to therapy models or manuals that differ in content and style. Items of the CTARPAS may be able to be used for a variety of purposes other than strictly just for assessing therapist adherence to an intervention model. For example, items may be able to be used to investigate how therapists’ interventions change over the course of delivering a treatment, or how flexibly they are able to respond to individual client requirements whilst still maintaining adherence to a particular intervention model (Startup et al., 2002). The CTARPAS could also be used, as suggested by Startup et al. (2002), to identify particular sessions where specific interventions are used extensively and to investigate whether particular patterns are observable in relation to particular types of clients or issues. For example, this information could serve as a prelude to intensive process analysis. The CTARPAS could also be effective in training cognitive therapists, in helping them learn how to be more adherent to the delivery of CBT when working with an at-risk population. The CTARPAS could be revised and a more comprehensive competence component added to the measure.

The finding that the CTS and the CTS-Psy are highly correlated leads to some potential areas of exploration for future research into the utilisation of the
CTS-Psy. As discussed in the Introduction chapter of this thesis, the CTS-Psy, despite being developed for use with individuals with psychosis, is not psychosis specific. It may have the potential to be used on a wider scale and with a wider target population including mental health disorders other than psychosis. That it is highly correlated with a well established measure that has been used extensively in the field of mental health research is a strength. As discussed earlier this, measure is easier to use than the CTS and allows a measure such as the CTS to be scored more accurately if the CTS-Psy is used first when assessing competence. There is much potential for the CTS-Psy to be used in association with training and supervision of cognitive behavioural therapists.

4.5 Conclusions

This was the first study to investigate treatment fidelity in a randomised controlled trial of CBT and a control psychotherapy for the at-risk for psychosis population. This study provided evidence that the interventions (CBT and NDRL) in the DEPTh project were successfully implemented as intended and delivered in a competent manner. This thus enables outcomes from the DEPTh project to be firm, accurate, meaningful and valid. Further, the successful establishing, assessing, evaluating, and reporting of treatment fidelity will allow a more accurate future cross-site comparison to be made with the EDIE-II project and other similar projects. It will also aid in future replication of this research and assist in the training and supervision of therapists that participate in any such future studies.
A new therapist adherence measure, the CTARPAS, was developed, piloted, and used in this study. Findings from this study indicated that the CTARPAS has the potential to be utilised in future investigations and also has potential in other applications.

Overall, the results from this study add significantly to the knowledge base in the field of indicated prevention for the at-risk for psychosis population and highlight the importance of treatment fidelity in treatment outcome research.
References


*The DEPTh Project.* (2006). Australian Clinical Trials Registry, Number ACTRN012606000101583.


Appendix A

The Cognitive Therapy Rating Scale (CTS)

(Copyright: Young & Beck, 1980)

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

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).

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 empathise.
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 empathise.
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”.

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. CONCEPTUALISATION, STRATEGY, AND TECHNIQUE

7. GUIDED DISCOVERY
0 Therapist relied primarily on debate, persuasion, or “lecturing”. Therapist seemed to be “crossexamining” 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.

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.ホームワーク

0  設師は、認知療法に適切な作業を含まないことを試みませんでした。

2  設師は、作業を適切に取り入れられたが、前回の作業をレビューしていない、作業を十分に説明していない、不適切な作業を配布した。

4  設師は、前回の作業をレビューし、「標準的な」認知療法の作業を配布し、セッションで扱われた問題に対応している。作業が十分に説明されている。

6  設師は、前回の作業をレビューし、認知療法のための作業を十分に配布し、カスタム・メイドで新規の視点を導入し、仮説を検証し、新規の行動を試験する目的で配布している。

追加の考慮事項

12. (a) 対象セッション中に特別な問題が発生したか（例えば、作業への非相応性、療法者と患者間の関係性、治療を続けない理由、再発）?

YES  NO

(b) はいの場合:

0  設師は特別な問題を適切に処理できなかった。

2  設師は特別な問題を適切に処理でき、しかし、療法的な考え方が用いられていた。

4  設師は特別な問題を療法的思考に基づいて取り扱い、技術の適用が適切に行われていた。

6  設師は特別な問題を療法的思考に基づいて取り扱い、技術の適用が適切に行われていた。

13. セッション中に特別な不審な要因が発生したかが、治療者の標準的な道徳を扱うこの尺度により正当に認められるか？

YES (説明を下記)  NO
Part IV. OVERALL RATINGS AND COMMENTS

14. How would you rate the clinician overall in this session, as a cognitive therapist?

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

15. If you were conducting an outcome study in cognitive therapy, do you think you would select this therapist to participate at this time (assuming this session is typical?)

0                              1                            2                     3                           4
Definitely Not    Probably Not        Uncertain      Probably Yes       Definitely Yes

16. How difficult did you feel this patient was to work with?

0             1                      2                     3                   4            5                 6
Not difficult-Very receptive            Moderately difficult            Extremely difficult

17. COMMENTS AND SUGGESTIONS FOR THERAPIST’S IMPROVEMENT:

__________________________________________________________________
__________________________________________________________________

18. OVERALL RATING:
Rating Scale:

0                     1                      2                        3                  4                       5
Inadequate        Mediocre        Satisfactory       Good       Very Good        Excellent

Using the scale above, please give an overall rating of this therapist’s skills as demonstrated on this tape. Please circle the appropriate number.

Appendix B

The Cognitive Therapy Scale for Psychosis (CTS-Psy)

(Copyright: Haddock et al., 2001)

Coding key:  1 = appropriately included
            0 = inappropriately omitted
            9 = appropriately omitted
            (9 set to 1 in total score, 9 initially scored to give differentiation
             between included and omitted)

I  General

a)  AGENDA

1.   The therapist noted client’s current emotional state with regard to
     agenda setting.
2.   Therapist and client established agenda for session.
3.   Priorities for agenda items were established
4.   Agenda was appropriate for time allotment (neither too ambitious
     nor too limited).
5.   At some point, client discussed salient events or problems
     occurring during the time since the last session.
6.   The agenda was adhered to during the session.

b)  FEEDBACK

1.   Therapist asked for feedback concerning previous session.
2.   Therapist asked for feedback and reactions to present session.
3.   Therapist asked client specifically for any negative reactions to the
     therapist, content, problem formulation, etc.
4.   Therapist attempted to respond to client’s feedback.
5.   Therapist checked that the client clearly understood the therapist’s
     role, and the purpose and limitations of sessions.
6.   Therapist checked that he or she had fully understood the client’s
     perspective by summarising and asking client to fine-tune or
     correct as appropriate.
c) UNDERSTANDING
1. Therapist conveys understanding by rephrasing or summarising what the client has said.
2. Therapist shows sensitivity by reflecting back feelings as well as ideas.
3. Therapist’s tone of voice was emphatic.
4. Therapist acknowledged patient’s viewpoint as valid and important.
5. Therapist did not negate patient’s point of view.
6. Where differences occurred, they were acknowledged and mutually respected.

d) INTERPERSONAL EFFECTIVENESS
1. Therapist seemed open rather than defensive shown by not holding back impressions or information, nor evading patient’s questions.
2. Content of what therapist said communicated warmth, concern and caring rather than cold indifference.
3. Therapist did not criticise, disapprove or ridicule the client’s behaviour or point of view.
4. Therapist responded to, or displayed, humour when appropriate.
5. Therapist made clear statements without frequent hesitations or rephrasings.
6. Therapist was in control of the session, he or he was able to shift appropriately between listening and leading.

e) COLLABORATION
1. Therapist asked client for suggestions on how to proceed and offered choices when feasible.
2. Therapist ensured that client’s suggestions and choices were acknowledged.
3. Therapist explained rationale for intervention.
4. Flow of verbal interchange was smooth, with a balance of listening and talking.
5. Collaboration was maintained even when therapist was taking a primarily educative role.
6. Discussion was pitched at a level and in a language that was easily understandable by the client.
II Specific

f) GUIDED DISCOVERY

1. Therapist used questions to determine the meaning a client attached to an event or circumstance.
2. Therapist used questions to show incongruities or inconsistencies in client’s conclusions without demeaning the person.
3. Therapist used questions to help client explore various facets of a problem.
4. Therapist used questions to examine client’s arbitrary conclusions or assumptions.
5. Therapist used questions to elicit alternative ways of solving a problem.
6. Therapist used questions to consider alternative explanations.

g) FOCUS ON KEY COGNITIONS

1. Therapist elicited (or referred to) specific thoughts, assumptions, images, memories, beliefs or perceptions.
2. Such cognitions elicited (or referred to) above are ones the client reports as involved in key problems.
   Such cognitions are explained or discussed in terms of:
3. Phenomenological characteristics (content, form, frequency, duration, etc.).
4. The relationship with client’s key problems.
5. The link between cognition and affect.
6. Such discussion takes place in an atmosphere of collaboration between therapist and client.

h) CHOICE OF INTERVENTION

1. Therapist selected cognitive-behavioural techniques of intervention.
2. The overall strategy was specifically related to the client’s problems.
3. Each individual cognitive-behavioural technique was relevant to one of the key problems of the client.
4. Strategies used were directly related to a formulation.
5. The techniques chosen had demonstrable (via research evidence, etc.) potential for change with respect to the problems at which they were targeted.
6. Therapist sought adequate feedback from the client regarding the strategy for change.
i) HOMEWORK

1. Therapist explicitly reviewed previous week’s homework.
2. Therapist summarized conclusions derived, or progress made, from previous homework.
3. Appropriate homework was assigned.
4. Therapist explained rationale for homework assignment.
5. Homework was specific and details were clearly explained.
6. Therapist asked client if he or she anticipated any problems in carrying out homework.

j) QUALITY OF INTERVENTION

0 The therapist applied no cognitive-behavioural techniques. Techniques were applied with:
   1 – Barely acceptable level of skill
   2 – Mediocre
   3 – Satisfactory
   4 – Good
   5 – Very good
   6 – Excellent

Note: score for this question is 0 if no cognitive-behavioural techniques are applied. If such techniques were employed, the score is the overall rating above.
Appendix C

The Cognitive Therapy for At Risk Populations Adherence Scale (CTARPAS)

Participant ID __________________________
Therapist ______________________________
Session number _________________________
Date of session _________________________

CTARPAS

Scale 1: Adherence

<table>
<thead>
<tr>
<th>-1</th>
<th>0</th>
<th>1</th>
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<tbody>
<tr>
<td>Present but not adherent</td>
<td>Not present</td>
<td>Present and adherent</td>
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</table>

Scale 2: Frequency

<table>
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<tr>
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<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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</thead>
<tbody>
<tr>
<td>Present</td>
<td>Quite frequent</td>
<td>Very frequent</td>
<td>Extremely frequent</td>
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<td></td>
</tr>
<tr>
<td>Just sufficiently present to be considered a ‘dose’ of therapy</td>
<td>Occurred once for a significant period, or briefly on a few occasions</td>
<td>Characterised the session</td>
<td>Present throughout the whole session.</td>
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<tr>
<td>throughout the session</td>
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<tr>
<td>Specific Item</td>
<td>Adherence Score (-1, 0, 1)</td>
<td>Frequency Score (1, 2, 3, 4, 5, 6, 7)</td>
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<tr>
<td>1. Problem list &amp; goals</td>
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<tr>
<td>Did the therapist work collaboratively with the client to develop a shared set of clearly defined problems and goals?</td>
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<tr>
<td>2. Formulation work</td>
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<tr>
<td>Did the therapist work with the client to develop a shared psychological understanding of the nature of the client’s experiences?</td>
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<tr>
<td>3. Normalising</td>
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<tr>
<td>Did the therapist help the client to recognise that his/her schizotypal experiences are similar to the experiences of individuals who do not have psychological disorders?</td>
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<tr>
<td>4. Generating and evaluating alternative explanations</td>
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<tr>
<td>Did the therapist help the client explore alternative explanations for his/her psychotic like experiences besides the client’s initial explanations for these events?</td>
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<tr>
<td>5. Safety behaviours</td>
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<tr>
<td>Did the therapist help the client to identify any safety behaviours he/she was employing? Did the therapist spend time educating the client about the role of safety behaviours in maintaining problematic beliefs? Did the therapist help the client to organise experiments to test the usefulness of safety behaviours?</td>
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<tr>
<td>6. Metacognitive beliefs</td>
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<tr>
<td>Did the therapist help the client identify and explore their beliefs about their thoughts, images and feelings (metacognitions)?</td>
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<tr>
<td>7. ‘I am different’ and other core beliefs</td>
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<tr>
<td>Did the therapist aid the client to identify relevant core beliefs and explore modifications of these beliefs if necessary?</td>
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<td>8. Social isolation</td>
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<tr>
<td>Did the therapist identify the client’s support network and explore what options they had for generating external alternative explanations for their experiences via seeking advice from others?</td>
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<tr>
<td>9. Relapse prevention</td>
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<tr>
<td>Did the therapist help the client to generate a personalised relapse prevention plan including early warning signs and interventions aimed at reducing any possible catastrophic interpretations of these emerging symptoms?</td>
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</tbody>
</table>
Appendix D

The CTARPAS Raters’ Manual

Cognitive Therapy for At Risk Populations Adherence Scale
(CTARPAS)

Raters’ Manual

Katrina Bell, Mike Startup, Paul French,
Anthony P. Morrison, Sandra Bucci, &
David Fowler
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   5. Rating Therapist Facilitation
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  10. Making Distinctions
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  12. Overlap Between Current and Prior Sessions
  13. References

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I. Introduction

This Raters' Manual accompanies the Cognitive Therapy for At Risk Populations Adherence Scale (CTARPAS). This scale is a blend of items developed for the Detection Evaluation and Psychological Therapy (DEPTh) project from Newcastle, Australia, and items developed for the second Early Detection and Intervention Evaluation (EDIE-II) project from the United Kingdom (UK). All items, and this introduction, are modelled on the Collaborative Study Psychotherapy Rating Scale Form 6 (CSPRS-6; Evans, Piasecki, Kriss, & Hollon, 1984), which was developed in the Systems for Psychotherapy Ratings (SPR) Project within the context of the NIMH Treatment of Depression Collaborative Research Program (TDCRP; Elkin et al., 1989), though it also includes modifications introduced in the Cognitive Therapy for Psychosis Adherence Scale -Revised (CTPAS-R; Rollinson et al., 2008). The CTPAS-R was designed to rate audiotapes of treatment sessions for cognitive therapy for psychosis. Although there are considerable similarities between treatments for individuals who are at risk of psychosis and those who have made the transition to actual psychosis, there are also a number of differences. Consequently there was a need to adapt existing scales in order to rate adherence to what we know to be efficacious in the at risk population. The CTARPAS is designed to rate adherence to the CBT intervention developed for the first Early Detection and Intervention Evaluation project (EDIE; French & Morrison, 2004) in the UK.

This manual explains the basis for rating items more thoroughly than was possible for the scale itself. The manual contains information on every item in the scale. It is essential that raters are familiar with the material in the Raters’ Manual before they make ratings on the scale.

The manual begins with general comments and instructions to raters. The remainder of the manual is organised according to item number. Each item contains (where applicable):
1) the item title;
2) the exact wording and format of the item as it appears in the scale;
3) an elaboration of the item’s purpose;
4) examples of possible therapist behaviours, which may and may not be included in the item;
5) an example adherent therapy dialogue;
6) an example non-adherent therapy dialogue; and
7) distinctions to be made from other items.

II. Using the Scale

Each item is rated on two scales. The first scale reflects the therapist’s adherence to the French and Morrison (2004) therapy model of cognitive therapy for people at high risk of developing psychosis (Scale One). The second scale is used to rate the frequency with which an activity rated as ‘present’ (whether adherent or not) occurred throughout the session (Scale Two).

Scale One: Adherence

<table>
<thead>
<tr>
<th>-1</th>
<th>0</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present but not adherent</td>
<td>Not present</td>
<td>Present and adherent</td>
</tr>
</tbody>
</table>

Scale Two: Frequency

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present</td>
<td>Quite frequent</td>
<td>Very frequent</td>
<td>Extremely frequent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Just sufficiently present to be considered a ‘dose’ of therapy</td>
<td>Occurred once for a significant period, or briefly on a few occasions</td>
<td>Characterised the session</td>
<td>Present throughout the whole session.</td>
<td>Throughout the session</td>
<td></td>
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</tr>
</tbody>
</table>
1. **Defining competent practice**

Competent practice within the context of this rating manual is defined as practices that are adherent to the French and Morrison (2004) model of cognitive therapy for people at high risk of developing psychosis. In general, many practices can be subsumed within this therapeutic approach. Three general principles are required for a practice to be considered adherent to the model (and therefore to be rated as competent). The therapy must be:

i) individualised to the client’s unique presenting problem;

ii) matched to the client’s level of understanding; and

iii) carried out collaboratively with the client.

Examples of therapist activities that do and do not adhere to these principles are provided with individual items within this manual.

2. **Adherence and frequency ratings**

If a therapist activity is present in some sense within the therapy session but does not adhere to the French and Morrison (2004) model in its application (i.e. it is not individualised, matched or collaborative), then it is rated as ‘present but not adherent’ and receives a rating of –1. This activity is then rated for its frequency within the session. If a therapist activity is present within the session and adheres to the French and Morrison (2004) model in its application, then it scores +1 on the adherence scale and is rated separately for its frequency within the session.

Realistically, therapists are not expected to cover every core item in each session.

The frequency scale points range from 1 to 7, which are anchored to approximate timings reflecting the estimated presence of the therapist behaviour throughout the session. If the activity was not adherent to the therapy model and received an adherence rating of -1, then the frequency ratings reflect this by ranging from -1 to -7. If the therapy activity was adherent to the therapy model and scored +1 on the adherence scale, then the frequency ratings would range from +1 to +7. This approach allows a greater range of options when analysing data as the competency
rating is not subsumed within the frequency rating and can therefore be incorporated in or omitted from any analysis as required.

3. **Defining a ‘dose’ of therapist activity**

For a therapist activity to be rated as present, it must be considered to be a clinically significant ‘dose’ of a particular behaviour, as opposed to a passing comment. It is suggested that most activities should be identifiable for at least five minutes at some point throughout the entire session for it to be likely that the activity could have impacted clinically upon the client. (Note that a single five-minute episode is not required. Instead, there may be several brief incidents of the activity throughout the session.) A rating of +1 then assumes the therapist behaviour to be present for at least five minutes throughout the session and to be adherent with the manual. If a therapist activity is identifiable but barely present, it is rated as absent (0), regardless of whether or not it was adherent to the French and Morrison (2004) model.

4. **Rating therapist behaviours**

The scale is designed to rate therapist behaviour. In rating the scale items it is important to distinguish the therapist behaviour (as much as possible) from the client behaviour in response to the therapist; the rater should attempt to rate the therapist behaviour, not the client’s response to that behaviour.

In rating therapist behaviour, the rater should consider what the therapist attempted to do, not whether these attempts were met with success or failure. For example, in rating Item 1 - Problem List, the rater must determine how much the therapist helped or encouraged the client to recognise that he or she was experiencing problems whether or not the client did acknowledge problems. Ratings of therapist intentions must be made on the basis of the dialogue within the session, rather than on the rater’s own intentions in the same situation, or the rater’s previous knowledge of the therapist’s work.
Client comments can be considered when establishing whether a particular therapist behaviour was present in a significant dose (i.e. the client may refer to the aspects of the session they found most helpful).

5. **Rating therapist facilitation**

One difficulty that arises in attempting to rate therapist behaviour is that sometimes the *client* initiates a behaviour, which is measured in an item. Similarly, in other cases the client may actually engage in a behaviour being measured in an item with limited therapist involvement. An item should not necessarily receive a lower rating in either of these circumstances. In these cases, ratings should reflect the degree to which the therapist *facilitates* the behaviour being measured. Here, *facilitation* refers to more than a passive acceptance on the part of the therapist of the client's behaviour. The therapist must *actively* encourage, prompt, or work with the client in relation to this behaviour. For example, Problem List would receive a rating of 1 or more if sometime during the session the client begins to list their problems AND the therapist assists or actively encourages the client to do so.

6. **Prerequisite knowledge for ratings**

Raters are not required to have special knowledge of the behaviours being measured by the scale in order to rate the items. The scale was specifically designed so that raters with no previous exposure to the therapeutic modality represented in the scale could reliably and validly rate therapist behaviours which occur in this modality. This Raters' Manual has been designed to provide the background needed in order to rate the items. However, when using the scale, the rater must be careful and conscientious in listening to and rating therapy sessions. Rating is a complex task and requires the rater to be thoughtful and to exercise good judgment.
7. Avoiding Haloed Ratings

The scale was designed for the purpose of describing the therapist's behaviour in the session. In order to use it correctly, it is essential that raters rate what they hear, NOT what they think OUGHT to have occurred.

The rater must be sure to apply the same standards for rating an item regardless of:

1). what type of therapy raters think they are rating;
2). what other behaviours the therapist engaged in during the session;
3). what ratings were given to other items;
4). how skilled the rater believes the therapist to be in a particular modality;
5). how much the rater likes the therapist; and
6). whether the rater thinks the behaviour being rated is a good or a bad thing to do.

Example of rater halo resulting from rater's judgment of therapy modality (1 above): The rater assumes that the item being rated is meant to measure an aspect of Modality A. This item might be rated higher than it should be as a result of the rater also assuming that the therapist was practising Modality A. Conversely, this item might be rated lower than it should be as a result of the rater assuming that the therapist was not practising Modality A.

Example of rater halo resulting from consideration of other behaviours the therapist engaged in during the session (2 above): In deciding what rating to assign to an item, raters might erroneously base their ratings on behaviours which are similar to, or which are likely to co-vary with the behaviours which are supposed to be considered in rating the item.

Example of rater halo resulting from ratings given to other items (3 above): In deciding what rating to assign to an item, raters might erroneously base their ratings on ratings given to other items. This is likely to occur when raters believe
that the rating given to another item affects the rating given to the item currently being rated.

Example of rater halo resulting from rater's judgement of the therapist's level of skill (4 above): The rater assumes the therapist is practising in Modality A and furthermore the rater assumes that the item being rated is meant to measure an aspect of Modality A. Based on these assumptions, the item might be rated lower than it should be if the rater judges that the therapist is not skilled in practising Modality A, and higher than it should be if the rater judges the therapist to be skilled in practising Modality A.

Example of rater halo resulting from how much the rater likes the therapist (5 above): In deciding what rating to assign an item such as Normalising, the rater might rate this item higher than it should be because she/he believes that normalising is a good thing to do and also she/he has a positive affective reaction to the therapist.

Example of rater halo resulting from rater's judgement of whether the behaviour is a good or bad thing to do (6 above): Raters might assign a lower rating to an item than is warranted because they think the therapist is a good therapist and the behaviour being measured is undesirable. Similarly, raters might assign a higher rating than is warranted because they believe the therapist is a good therapist and the behaviour being rated is desirable.

8. Use of Guidelines
The descriptions and definitions of items in this manual are intended to be guidelines. We expect the rater to exercise her/his judgement in applying these guidelines as well as in rating situations for which the guidelines do not apply.
9. Use of Examples
For each of the items in this manual, we have given examples of therapeutic exchanges, which provide guidelines for how to rate the therapist behaviour. The examples in this manual are nevertheless only guidelines for how to rate an item. As examples are necessarily only a fragment of a therapy session, they are better used as a guide to the kinds of behaviours and the intensity with which they should occur, than they are to the frequency with which the behaviours should occur. Reference is therefore only made throughout the manual to the adherence rating appropriate to the example. When dialogue is given in an example, the letter ‘T’ is used to indicate what the therapist said, and ‘C’ is used to indicate what the client said. All names that appear in these examples are fictitious, although the transcripts are based upon real interactions whenever possible.

10. Making Distinctions
Because the items vary in breadth of coverage, the same therapist behaviours which are rated under one item may also be rated appropriately under other items. Conversely, the rater is often required to make fine distinctions between therapist behaviours which are similar, yet should be rated distinctly. This manual also contains a ‘Distinctions from other items’ section within the entry for some items. This section contains information regarding how the ‘target’ item is similar and/or different from other ‘comparison’ items. The rater should not infer that the existence of these distinctions means they are the only important distinctions that need to be made. All of the items are similar to or different from others in important ways. Thus, the rater should not rely on the manual to point out all of the important similarities or differences which exist.

11. Specific Instances Required for Rating
In order to rate an item as present (+1 on Scale One), the rater must hear a specific example of the therapist behaviour being rated. The rater should be careful not to rate behaviour as having occurred if she/he thinks it probably occurred but cannot
think of a specific example. Raters must be able to substantiate the rating they assign to every item.

12. **Overlap Between Current and Prior Sessions**

Often an issue that was discussed in an earlier session is implicitly or explicitly referred to in the session being rated. For instance, specific items, such as ‘Relapse Prevention', may specifically refer to reviewing plans made in the previous session. In this case, the review occurring in the present session is the rated activity, not the initial planning.

13. **References**


III. Specific Item Guidelines

1. **PROBLEM LIST AND GOALS:** Did the therapist work collaboratively with the client to develop a shared set of clearly defined problems and goals?

Scale One: Adherence

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Scale Two: Frequency

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Just sufficiently present to be considered a 'dose' of therapy. Occurred once for a significant period, or briefly on a few occasions. Characterised the session. Present throughout the whole session.

The development of a problem list is of vital importance as this will allow the client to have some direction over their therapy, thus, contributing to the collaborative nature of CT.

Below are a number of examples of items, which may appear on client’s problem lists:

“I am unhappy with where I live”
“I feel anxious when I leave the house”
“I want to find my real mother”
“I worry about people laughing at me when I go out”
“I need to get a job”
“I want more money”
“My sister is nasty to me”
“I want to stop it happening to me again”
“I want to know what is wrong with me”
“I feel depressed”
“I feel anxious”
“I need a girlfriend”

Once an exhaustive problem list is generated it should be translated into a goal. It is important that the goals are written in behavioural terms in order that the client can actually see if these goals are attained. A goal statement such as “I would like to feel happier/better” should be operationalised through additional questioning by the therapist, such as “If you were happier what would you be doing?”

The goals should be written according to the following format:

**SPECIFIC**

**MEASURABLE**

**ACHIEVABLE**

**REALISTIC**

**TIME LIMITED**

The process of moving towards specific therapy goals from a series of daunting problems can be a lengthy process. It may well take one or two full sessions in order to properly complete the task. This task must be carried out collaboratively with the focus being on what the client wants to achieve rather than the therapist setting the problems or goals.

**Case Examples**

**Adherent**

The following example should receive an adherence rating of +1 because the therapist uses additional questioning to elicit the clients opinion of what being happier would be like to operationalise a goal.

C: I just want to be happier.
T: If you were happier what would you be doing?

C: Well I suppose I’d be back to my old self.

T: That sounds like a good thing, so what did you used to do that you don’t do any more?

C: Well I used to go out with my friends a lot, but I hardly ever see them now.

T: Ok so it sounds like seeing your friends more would be something you would like to do – how often do you think you’d like to see them?

**Non-adherent**

The following example should be given a rating of -1 because the therapist is lecturing and taking the lead in setting the goals.

C: I just want to be happier.

T: I’m sure everyone would like to be happier but that is a very vague goal and not something we can work towards. Perhaps we need to find a more concrete goal, for instance, what if we said you should try to go out three times a week?
2. **FORMULATION WORK**: Did the therapist work with the client to develop a shared psychological understanding of the nature of the client’s experiences?

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The purpose of this item is to measure the extent to which the therapist worked with the client to develop a shared *psychological* understanding of the nature of the client’s difficulties. This item refers to the therapist developing with the client, a formulation of their difficulties that uses psychological mechanisms to explain symptom development and maintenance.

The central aims of formulation work are:

a) to validate the client’s existing explanation of their experiences by presenting an ‘understandable’ account of why they came to the conclusions they did; and

b) to explore alternative explanations of experiences that may be more adaptive and less distressing. The type of formulation developed will vary considerably across clients.

Formulation work can be conceptualised in terms of three different aspects:

i) a historical account of symptom development that includes an outline of the client’s vulnerability factors, the development of core beliefs about themselves
and others, symptom onset, and, the emotional reaction to and appraisal of any unusual experiences (e.g. perceptual anomalies); ii) a ‘here and now’ account of symptom maintenance; and iii) a generic ‘stress-vulnerability’ conceptualisation.

For some clients it may be relevant to work on all three aspects, for others to focus on one or two. It is important that this is matched to the client’s abilities, receptiveness and needs. The formulation should ideally build upon information collected in the assessment. The therapist should incorporate psychological mechanisms that explain the development and maintenance of symptoms (e.g. emotional process, reasoning biases, schema driven processes, behavioural responses, or trauma responses) and consider the impact of social context and physical factors (e.g. drug use, medication, or ill health).

While the formulation work may contain elements of psycho-education, the overall model must be individualised to reflect the idiosyncratic nature of the client’s life events, appraisals and symptoms. It should also be carried out in a collaborative manner and matched to the client’s receptivity. The degree of detail and sophistication of the model explicitly shared with clients will therefore vary greatly between individuals.

**Case Examples**

**Adherent**

The following example should receive an adherence rating of +1 because the therapist draws upon the narrative account that they have previously discussed together, is validating of the client’s reasoning process by emphasising how ‘understandable’ their reactions were, and presents a formulation that suggests the client may have overestimated the threat they thought to be present.
T: So when we look at what you’ve been through it starts to make sense of why these worries might be troubling you.

C: Does it?

T: Well, from what you’ve told me about your early life, it sounds as if you were surrounded by really extreme and unpredictable violence.

C: When I think back, my life is punctuated – defined by – all those things.

T: Thinking of the impact of that on you – it has lots of effects, but one we’ve thought about is that expectation of threat or violence.

C: I don’t go looking for it!

T: No – no – not at all! Sorry, that’s not what I meant. I was thinking that for anyone growing up with all that, it would make sense to look out for yourself and keep your guard up. You had to in order to stay safe. And you especially had to because there was no-one to look after you and protect you from it all.

C: I had to look out for myself.

T: You did, absolutely. And if we think about when you moved out of home, that sense of threat and isolation continued.

C: Yeah, I got in with some really dodgy characters. I tried to impress them to get accepted but I think I annoyed them.

T: And that was when you left the area?

C: Yeah – that’s when the retribution started. I don’t know what happened.

T: It just strikes me that given the past threat of imminent violence and the need to look after yourself, together with the risk of being in trouble with this crowd, it makes sense that your guard comes right up at this point. You need
to keep yourself safe, so it absolutely makes sense to look for signs of threat.

C: That’s when I started hearing people saying my name. I couldn't talk to anyone.

T: So you never had a chance to find out whether anyone could be friendly or not. Everyone is a possible threat and you never have a chance to find out otherwise.

C: It was scary at the time. I guess things sometimes get a bit out of perspective.

T: It is very hard when things are so scary, working out what’s reasonable and what is driven by how you are feeling.

C: It just gets worse when I’m on my own. I don’t have anyone to check it out with.

**Non-adherent**

The following example should receive a rating of -1 because the therapist is providing a standard explanation of voices, not one that is individualised or matched to the client’s perspective. Furthermore, the explanation is not given collaboratively. The therapist hasn’t taken the time to understand the client’s belief system around their voices and cannot therefore gauge the sharing of the model in a way that is compatible to the client. Instead, the model presented directly challenges the client’s self-affirming beliefs about their own importance and significance, and the existence of their ‘special’ and unique relationship with their dead father.

C: But if I think any bad thoughts at all I hear my father telling me how proud he is of me and I know I can’t let him down and I have to try harder…
T: I know. It must be really hard to cope with. It can be really puzzling at times, but in actual fact, the voice you hear is your thoughts – think of it as an ‘echo’ of your own thoughts.

C: So you don’t think it’s my Dad talking to me?

T: I think maybe you can hear him, but I think the voice you hear is actually an echo of your thoughts and the reason you hear your thoughts like this is because you must have been under stress recently. Remember, it’s not his voice; it’s an echo of your own thoughts.

C: I shouldn’t have told you about this. I knew I shouldn’t. I’m feeling angry now and I can’t think bad thoughts. (sobs). I know my Dad knows what I’m thinking, because he’s chosen to keep living through me. I’m his legacy, and that’s such a responsibility.

**Distinctions from other items**

**•Normalising**
Normalising involves comparing the client’s symptoms to those of individuals in the normal population, rather than making sense of them within the client’s own personal history. If a developmental formulation makes use of this comparison with the normal population, then both items can be scored. Normalising should not be rated however, when formulation work just involves an 'understandable' rationale.

**•Relapse Prevention**
These two items are likely to overlap as both involve formulation work. The key difference between the two is that 'Formulation Work' refers to developing a model of the client's difficulties in general, whereas 'Relapse Prevention' is a specific model of relapse only.
3. **NORMALISING**: Did the therapist help the client to recognise that his/her psychotic-like experiences are similar to the experiences of individuals who do not have psychological disorders?

**Scale One: Adherence**

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This item measures the extent to which the therapist attempted to help the client avoid catastrophic cognitions regarding their mental health. The kind of therapist behaviours referred to include:

i) helping the client to recognise that their attenuated symptoms can be conceptualised as part of normal experience and understood using normal psychological processes, and are shared by people who do not have psychological disorders; and

ii) offering assistance in understanding the attenuated symptoms.

Normalising techniques may include:

i) discussion of the vulnerability-stress model, emphasising that all individuals have some level of vulnerability to psychotic-like experiences and that even individuals with a low vulnerability are liable to have psychotic-like experiences if they face sufficient stress;

ii) discussion of the evidence that particular kinds of stress (e.g. sleep deprivation
and sensory deprivation) can lead to hallucinations and paranoid ideation in almost any individual;
iii) discussion of the evidence that many individuals who have never sought, nor needed, psychiatric help, experience psychotic-like phenomena (e.g. spiritualist mediums);
iv) discussion of the evidence that many individuals, who hold strong beliefs (e.g. political beliefs) select information that supports their beliefs, ignore information that appears to contradict their beliefs, and interpret ambiguous information in line with their beliefs; and
v) discussion of the ways in which psychotic-like symptoms and negative affect relating to the symptoms can exacerbate and maintain each other in positive feedback loops (‘vicious circles’).

Case Examples

Adherent
The following example should receive an adherence rating of +1 because the therapist responds flexibly to the client’s concerns and uses several different means of normalising the client’s experience.

T: You say you must be crazy and that you’re worried that I’ll want to take you to hospital because you’ve heard voices of people that you can’t see, but I wonder if perhaps you’re worrying too much about this.

C: Yeah, but hearing things means you’re crazy doesn’t it? And people get freaked out by crazy people and think that they should be in hospital locked up.
T: Well, hearing voices can be a symptom of mental illness, but not always. More than fifteen per cent of the population hears voices sometimes and when a loved one dies it is very common for an individual grieving to hear their loved one’s voice after their death.

C: Are you saying that I’m not crazy then?

T: What I’m saying is that everybody is vulnerable to psychotic-like experiences like hearing voices, depending on the situation.

C: Really, I had no idea. But, I’m hearing voices quite often and I haven’t been in any extreme situations. Nothing in my life has been different.

T: Well, the kind of situation I was thinking of that might be impacting is lack of sleep. Almost anybody who goes without a few days sleep can start to experience voices. And I remember you mentioning you were so worried about your exams you hardly slept for a few nights?

C: Yeah, I hardly slept for about three nights; I was so worried that I would fail my exams.

T: And you also got really scared when you first heard a voice when no-one was there.

C: Of course I was, wouldn’t you be?

T: Yes, I might be frightened. But what I was thinking just then is that anxiety can make voices worse, it’s kind of a vicious circle. The voices make you feel anxious, the anxiety makes the voices worse, and then the voices make you feel even more anxious. So, round and round the cycle goes making you feel worse.
Non Adherent

The following example should receive an adherence rating of -1 because the therapist has not considered the meaning to the client of being involved with an early psychosis service and having had to take time off school. Rather than assess the nature of the symptoms in detail the therapist is directive in telling the client what their difficulties are.

C: What do I tell the kids at school next week when I go back after having to have time off. Last time they saw me they thought I was normal and now when they find out that I’m involved with an early psychosis service they’ll think I’m a schizophrenic.

T: Schizophrenia is really just a word to describe a set of symptoms. One of those symptoms is auditory hallucinations and you don’t have those.

C: Oh, but I do – I talk to myself.

T: Yeah, but that is different to auditory hallucinations, which are definite voices that you can’t control.

C: I can’t control this, because it’s what I’m thinking but really loud. You’d call that an auditory hallucination wouldn’t you?

T: No that’s different, you’d call that a loud thought. That’s different to schizophrenia.
4. GENERATING AND EVALUATING ALTERNATIVE EXPLANATIONS: Did the therapist help the client explore alternative explanations for his/her psychotic-like experiences besides the client’s initial explanations for these events?

Scale One: Adherence

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<td>1</td>
<td>Present briefly on a few occasions of therapy</td>
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This item measures the extent to which the therapist encourages the client to understand their psychotic-like experiences. Exploration of alternative explanations usually has not been done by the client. Assisting the client in this process can be helpful in reducing distress and helping clients evaluate the accuracy of their initial interpretations.

Techniques may include:

i) utilising Socratic dialogue to aid in assisting the client to develop a comprehensive list of possibilities for intrusions;

ii) evaluating the evidence for each possibility in a structured manner;

iii) evaluation of the advantages and disadvantages of specific explanations;

iv) assist in generating alternative explanations that are less distressing and more consistent with gathered evidence;

v) assisting in developing belief ratings for each alternative explanation;
vi) assessing the content of intrusive thoughts or images and the idiosyncratic meaning of such intrusions;
vii) thought suppression exercises to discover the effects of suppression; and
viii) encouraging behavioural experiments or gathering evidence for and against the accuracy of each intrusion possibility.

Case Examples

Adherent
The following example would receive an adherence rating of +1 because the therapist was active and collaborative in initiating discussion with the client regarding alternative explanations for his/her psychotic phenomena and urged the client to consider a number of alternatives.

T: At times it can be helpful to understand what some reasons might be for some of these experiences that you’ve been telling me about. I wonder if we could spend a bit of time together thinking about all of the possible explanations for these experiences. Perhaps it might be good to get them all down on paper so we can think about them in a bit more detail, would that be OK?

C: Yeah, OK.

T: Well, what reasons have you already thought of that might explain what you’ve been experiencing?

C: There are two main ones. I think I’m being followed because I’ve done something bad and people want to punish me and the other one is that people are trying to make me go crazy.

T: OK. Well let’s put those one’s down on the list. Firstly, is that you’ve done something bad and people want to punish you and secondly, people are trying
to make you go crazy. Is that correct?

C: Yep.

T: Ok, now let’s have a think; is there anything else that could be causing this? What have others said to you about it?

C: Well, my parents think it is because I haven’t been sleeping well lately since my grandmother died.

T: Should that possibility go down on the list?

C: I guess. But I don’t think it is that. I’ve had trouble sleeping before and I didn’t end up thinking that people were following me.

T: Let’s just put it on the list and we can have a think shortly about the likelihood of each of these possibilities.

C: OK.

T: Can you think of anything else that may be happening in your life, however unlikely it may be? Is there anything we have discussed that might impact on this kind of thing happening?

C: Well, we keep on talking about how stress can do weird things to you so I suppose it could be that I’m stressed and this is how my body is reacting to that stress?

T: So, I should put down stress on the list?

C: I guess.
Non Adherent
The following example would receive a rating of -1 because the therapist has not worked collaboratively with the client to introduce the idea of considering alternative explanations of his/her experiences. Rather, the therapist has been directive in the consideration of alternatives.

T: So you really think that people are following you because you did something wrong in the past?

C: Yeah, I can’t really see any other explanation.

T: Well, I could think of a few. Would you like me to go through some of them with you?

C: I suppose so.

T: Well, first, I think no one has been following you, they only happen to be walking behind you.
5. **SAFETY BEHAVIOURS**: Did the therapist help the client to identify any safety behaviours he/she was employing? Did the therapist spend time educating the client about the role of safety behaviours in maintaining problematic beliefs? Did the therapist help the client to organise experiments to test the usefulness of safety behaviours?

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This item measures the extent to which the therapist helps the client to identify the safety behaviours he/she is employing and to understand that these safety behaviours (cognitive or behavioural) can maintain dysfunctional interpretations of intrusions. A full assessment of safety behaviours needs to be carried out if they are being utilised by the client. If safety behaviours are found to be involved in the maintenance of problematic interpretations then experiments should be employed in order to help the client evaluate their usefulness.

Thus safety behaviour work as measured on this scale covers three main areas:

i) assessment and exploration of safety behaviours;

ii) education about the role of safety behaviours; and,

iii) experiments with safety behaviours
Techniques may include:

i) a full exploration of safety behaviours;

ii) observation of safety behaviours, if possible, by accompanying the client into a feared situation or inducing a feared situation;

iii) exploration of the common safety behaviour of selective attention;

iv) exploration of the common safety behaviour of avoidance;

v) use of metaphors to aid in conveying the concept of safety behaviours to the client and how they may aid in maintaining a problematic belief; and

vi) aiding the client in testing their safety behaviours within session, and ultimately outside of the session, with behavioural experiments.

**Case Examples**

**Adherent**

The following example would receive an adherence rating of +1 because the therapist aided the client in the identification of an employed safety behaviour (avoidance).

T: So, from what you’ve told me so far it seems that avoiding going out during the day decreases the chance that others can hurt you, so you spend your nights awake and your days sleeping?

C: Yeah, it works really well. Because everybody else is asleep when I’m awake so I can do my thing without worrying.

T: Have you noticed any negatives about this change in your routine?

C: Well, lots. I had to quit my job because I was working during the day, and I don’t really get to see my friends and family that much anymore. My mum gets angry with me because she has to be really quiet during the day when I’m
sleeping and it sort of interrupts the things she has to do. But it’s worth it because at least I’m safe.

T: So how are you occupying yourself at night when you’re awake, I’m guessing there is a lot less stuff that you can do?

C: Well, yeah, I have to be really quiet so I don’t wake my family. So I can’t listen to my music, as I like it really loud, and I have to watch TV with it turned down really low. I can’t go and do anything outside of the house really because everything is shut. So, most of the time I read or think about all this crazy stuff that is going on in my life.

T: So not going out during the day limits the chance that others can hurt you. But staying up at night and not having much to do increases you thinking about it?

C: Yeah, I actually spend quite a bit of time thinking about it at night, it gets a bit obsessive I suppose.

T: So, by changing your behaviour to limit the chance of people hurting you it actually increases your preoccupation with it?

C: Yeah, when you put it like that, huh.

T: So, the way that you’ve chosen to try and make yourself safer actually increases your preoccupation with others wanting to hurt you.

C: Yeah, it does.

T: I wonder how long you can go on doing this, as it seems that it is really stopping you from doing things that you enjoy, like work and seeing your
family and friends. I wonder if there is any way that we can test whether this is the best way to handle this situation?

C: I’m open to suggestions.

**Non Adherent**

The following example would receive a rating of -1 because the therapist did not work in a collaborative manner with the client and did not help the client to explore their safety behaviour of avoidance. Rather, the therapist was directive in telling the client that their behaviour was maladaptive.

T: So, you think that if you stop being around others that will stop them from being able to read your thoughts?

C: Yeah, because if I don’t have any contact with anybody then it won’t give them the opportunity to read my thoughts.

T: But, doesn’t that make you miss out on a lot of things that you like doing?

C: Yeah, but it’s worth it for me not to stress.

T: I don’t really agree with that. Your behaviour is not really going to help you in the long run.

C: Well, it’s something that I need to do because it’s too stressful for me to be around others.

T: The way I see it is that it is very maladaptive and I think it will cause you more problems.
6. **METACOGNITIVE BELIEFS**: Did the therapist help the client identify and explore their beliefs about their thoughts, images and feelings (metacognitions)?

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French and Morrison’s (2004) model of psychosis recognises the importance of working with metacognition. Positive beliefs may generate additional intrusions, whilst negative appraisals of unusual experiences as being dangerous or uncontrollable may initiate or accelerate the progression to psychosis.

Metacognitive work covers assessment of metacognitive beliefs. The therapist may assess metacognition during a routine clinical interview. Alternatively, they may use tools such as structured questionnaires and self-report measures (e.g. The Metacognitions Questionnaire; MCQ). This item thus measures the extent to which the therapist aided the client in identifying their metacognitive beliefs and to explore their importance in the maintenance, frequency, and distress associated with their intrusions.

Techniques may include:

i) exploration of the client’s appraisal (positive and negative) of, and response to metacognitions;
ii) assisting in the targeting of metacognitive beliefs; and
iii) utilisation of strategies to help reduce distress associated with metacognitive beliefs, such as, evaluating evidence, generating alternative explanations, behavioural experiments, and/or considering the advantages and disadvantages of a particular belief.

**Case Examples**

**Adherent**
The following example would receive a rating of +1 because the therapist explored the client’s belief about the experiences they were having and assisted them in considering the advantages and disadvantages of this belief.

T: So, from what you’ve told me, you find that it’s a good thing that you are suspicious and paranoid of others, is that correct?

C: Yeah, because it means that I’m always on the lookout, which is exhausting but it means that I’m safe.

T: How do you know that you are safe?

C: Well, because I keep an eye on everyone that I am near, and so if they do anything odd, then I get myself out of there. It’s saved me from being assaulted a number of times.

T: Are assaults common in your neighbourhood?

C: Yeah, it’s a pretty rough spot. There’s lots of crime.

T: So, it makes sense that you’re paranoid given that you live in this sort of neighbourhood.
C: Yeah, it does. And it’s a good thing. It also stops me from doing a lot of things but I guess it is worth it.

T: What do you mean that it stops you from doing things?

C: Well, sometimes I’ve got stuff to do but I’m so paranoid that I can’t leave the house which makes me miss out on things that I want to do. Or sometimes, if I can leave the house, I’m so worried that I don’t enjoy what I’m doing because I can’t stop checking out everyone.

T: So, on the one hand being paranoid keeps you safe but on the other it causes you to miss out or not enjoy things sometimes?

C: Yeah.

T: I wonder if it might be useful to have a close look at your life and the things that you do and consider what times it is helpful for you to be suspicious and what times you could probably relax a bit. Do you think that might be helpful?

C: Maybe, we could try.

Non Adherent

The following example would receive a rating of -1 because the therapist failed to explore the positive belief that the client had about their experience of auditory hallucinations and focused on the negative consequences of the belief. Thus, the link between the metacognition and the maintenance of the behaviour was not highlighted.

T: So, if I understand you correctly you take cocaine regularly because when you’re high you experience voices?
C: Yeah, because the voices help me avoid problems in the future.

T: But taking cocaine regularly is quite dangerous don’t you think?

C: Well, for some people I suppose but not for me. It hasn’t hurt me in any way and it allows me to hear voices which I really enjoy.

T: But, I wonder if you’re focusing on the positives of this but not the negatives? Can we have a think about the negatives?

C: Well, I guess but it won’t change my mind.
7. ‘I AM DIFFERENT’ AND OTHER CORE BELIEFS: Did the therapist aid the client to identify relevant core beliefs and explore modifications of these beliefs if necessary?

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This item measures the extent to which the therapist helps the client to identify core beliefs and to explore how these beliefs have shaped the way the client views themselves, the world and others. If these core beliefs are influential in maintaining dysfunctional interpretations, or increase vulnerability for future relapse, the therapist should aim to modify these beliefs.

Techniques may include:
i) identification of core beliefs through techniques such as the ‘downward arrow’ or a ‘dysfunctional thought record’;
ii) exploration of the impact of dysfunctional core beliefs on the client’s view of themselves, the world, and others;
iii) examination of the advantages and disadvantages of holding dysfunctional core beliefs; and
iv) modification of dysfunctional core beliefs via a number of existing CBT techniques, such as, considering the evidence for and against, considering whether
the beliefs are unreasonable, unhelpful or extreme, and whether there might be more moderate alternatives.

**Case Examples**

**Adherent**
The following example would receive a rating of +1 because the therapist aided the client in identifying a significant dysfunctional core belief by utilising the downward arrow technique.

C: When I’m around others I’m scared to join in with the conversation.

T: I wonder what you might be worried about if you did join in the conversation.

C: Well, I always think that I’ll say something silly.

T: Would it be OK if I asked some questions about this thought to see if there is an underlying belief, which may be supporting this thought?

C: I suppose so.

T: So, your original thought was “I’ll say something silly”. Could you tell me what would be the worst thing about saying something silly?

C: Well, I’m worried that people will think that I am an idiot.

T: And could you tell me what would be the worst thing about people thinking that you’re an idiot?

C: Well, they won’t like me.
T: And what would be the worst thing about that?

C: That I’d have no friends.

T: So, just let me check that I understand what you’re saying; if you said something silly to other people they might think you’re an idiot and not like you, and then you’d have no friends, is that right?

C: Yeah.

T: And what would be so bad about that?

C: If I had no friends, then I’m worthless.

T: So you worry that you’re worthless.

C: Yes.

Non Adherent

The following example would receive a rating of -1 because the therapist was directive in the identification of a core belief and did not allow the client to explore the impact of this belief and the advantages and disadvantages of having such a belief.

T: I wonder if at times you’ve felt different to other people.

C: Well, yeah I have.

T: The way we see ourselves can be linked to what we’ve experienced in life and I think that your history of being a victim of bullying helped generate this belief that you are different.
C: It may have I suppose.

T: Well believing that you’re different is not a really helpful belief to have is it?

C: I guess not. It’s not as if I chose to have it, I just do.

T: I would guess the cons outweigh the pros of this belief?

C: Well, I don’t know I’ve never thought about it.

T: I think we can safely assume that they do. I think it will be useful for us to modify this belief.
8. **SOCIAL ISOLATION**: Did the therapist identify the client’s support network and explore what options they had for generating external alternative explanations for their experiences via seeking advice from others?

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For some clients, the onset of psychotic-like experiences takes place at times when they have a reduced capacity for generating and evaluating alternative explanations. This item measures the extent to which the therapist identifies what external outlets the client can access if they want to seek advice from others in order to ascertain their perspective on the client’s experiences. The therapist might encourage the client to seek out others that help them consider other ways of thinking, encourage better hypothesis testing, and normalise the triggering events.

Techniques may include:

i) identification of the client’s support networks;

ii) highlighting the issue of isolation (where required) with the client;

iii) exploration of the quality and appropriateness of the client’s support networks; and

iv) incorporating a number of strategies to overcome any problems related to the client’s social supports, such as, generation and evaluation of lists of support individuals.
Case Examples

Adherent
The following example would receive a rating of +1 because the therapist guided discussion to focus on the quality of the client’s support network and explored the appropriateness of such a network before discussing a strategy to enhance this network.

T: So from what you’ve told me it seems that you’re able to discuss these difficulties with a range of different people in your life.

C: Yeah, I’ve got a lot of friends and family that I chat to about it all.

T: Would it be OK for you to tell me about who you most often talk to about all of this?

C: Yeah, sure. Well, I mainly speak to my mum and my sister. And, my closest friends are Shelley and Claire, and my boyfriend, Chris.

T: Do you find talking to others about these difficulties helpful?

C: Well, most of the time I do. It depends on who I talk to really.

T: Can I ask you what you mean by that?

C: Well, if I talk to my mum, sister or Claire I tend to walk away feeling a bit more stressed but if I talk to Shelley or Chris I walk away feeling relieved most of the time.

T: So, you walk away feeling different depending on who you talk to?
C: Yeah. Well my mum, sister, and Claire are spiritual people and they believe that spirits are everywhere and they think that I must have some special talent to be able to feel them, which really freaks me out. But Chris and Shelley are more practical people and they help me realise that when I think I feel spirits, most of the time it turns out that I read a bit too much into things, or I’m really stressed and tired, which makes me feel a lot better and not so weird, and then I don’t believe that I did really feel spirits.

T: Ah, so Chris and Shelley are the most helpful in decreasing your worry because they’re more practical.

C: Yep, they’re great.

T: I wonder whether it would be useful to write this information down on a list and divide this list into the ‘practical’ people and ‘spiritual’ people that you have in your life and place your mum, sister, Claire, Shelley and Chris on that list and any other people that you may talk to under the right headings. You could keep this list close at hand and when you’re feeling stressed you could read it and make a decision about who you wanted to talk to about your worries. From the sound of it, it will most likely be talking to the ‘practical’ people.

C: Yeah, that would be a good idea because when I get myself in a fluster it’s sometimes hard to know who to talk to, and having a list would make it a bit clearer for me when I’m stressed.

Non Adherent

The following example would receive a rating of -1 because the therapist did not adequately explore the client’s support network. The supports that were identified were not sufficiently enquired about to identify if they were likely to be
appropriate or not and the homework was not collaboratively agreed upon. Further, no explanation of usefulness was given for the homework task to the client.

T: Have you spoken to anyone else about these experiences to see what their perspective may be?

C: Not really, I’m too worried that they’ll think I’m a freak.

T: Do you think it might be helpful to see what others think though?

C: No, because I already know what they’d think. I’d know what I’d think if somebody said it to me.

T: Who do you have to talk to in your circle?

C: I have my family and about four friends that I’m close to.

T: Are they normally supportive?

C: Most of the time I guess.

T: Well, between now and next session I would like you to discuss what has been going on for you with each family member and your close friends and than we can discuss what was said.
9. **RELAPSE PREVENTION**: Did the therapist help the client to generate a personalised relapse prevention plan including early warning signs and interventions aimed at reducing any possible catastrophic interpretations of these emerging symptoms?

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This item measures the extent to which the therapist helped the client to generate a personalised relapse prevention plan, including identifying the early warning signs of any previous psychotic-like experiences and steps to be taken by the client to reduce any catastrophic interpretations of these emerging symptoms. Assessment of possible wider antecedents (social, physical, and interpersonal events) that might help to trigger a relapse are included, as are interventions to help the client understand that the emergence of any warning signs does not necessarily signal psychosis, rather it is the interpretation of these experiences which can lead to distress and worsening of symptoms.

Techniques may include:

i) assessment of the client’s appraisal of their recent psychotic-like experiences and the impact of these;

ii) assessment and discussion of previous early warning signs and symptoms;

iii) encouragement of a balanced appraisal of the future emergence of symptoms;
iv) identification of learnt interventions that the client reports work for them;  
v) development of a relapse prevention plan containing information about the  
development and maintenance of their difficulties, strategies/skills for evaluating  
beliefs, generating alternative explanations and the testing of them, summaries of  
counter-evidence and the results of behavioural experiments; and  
vi) discussion and inclusion in the blueprint of the client’s support network and at  
what point to utilise this network.

**Case Examples**

**Adherent**

a) The following example would receive a rating of +1 because the therapist  
elicits a sequence of events and coping responses that preceded presentation to the  
service.

T: So things had been going relatively OK for you up until about February of this  
year but then you started to feel a bit down, your sleeping became disrupted  
and you started feeling a bit suspicious of the neighbours. Can we spend some  
time just trying to understand what was going on for you around that time, to  
see if we can figure out what went wrong for you? When did you first notice  
things getting more difficult?

C: Well, I suppose it was hard going back to school after the school holidays, I  
was worried that I was going to be bullied again by this guy in the year above  
me. I was hoping that I could cope with it better this year, but obviously not.

T: Well, clearly getting back into the school routine is always a bit stressful for a  
while and even more so with being worried about being bullied. Was there  
anything else worrying you or that you were finding difficult at the time? How  
were things at home?
C: Well, Mum and Dad are renovating the house so it was all out of order and nothing was clean and I had to share a room with my brother.

T: How was that for you – having to share a room with your brother?

C: Not too bad I suppose, it just meant that I didn’t have my own space for a few months which bothered me when Mum was stressed and annoying me. She was so stressed about the renovations; she wasn’t really herself there for a while.

T: What did you do instead then?

C: I went out with my mates more and spent more time at their houses. Spent a lot of time with my best mate Chris whose family owns a pub so I’d hang out there quite a bit which was pretty cool as his parents let us drink.

T: So, things had been going okay, but then you had quite a bit to deal with in one go – you went back to school, you were worried about being bullied again, it sounds like things were a bit stressful at home, you lost one of your main ways of coping when you had to share a room, and you started going out more and you started drinking more. Can you remember when you first started feeling a bit more suspicious of others?

**Adherent**

b) The following example would receive a rating of +1 because the therapist aids the client in the identification of early warning signs and then moves on to responding to the client’s concerns about managing their illness.
T: So, from what we’ve pieced together it seems that these worrying symptoms of being suspicious of others came about as a result of a lot of stress in your life and that you weren’t sleeping as much as usual due to staying awake thinking about how to deal with this stress. This is really useful information for you to have for the future; it gives you an idea of what to keep an eye on.

C: In the future?

T: Well, these worrying symptoms may never come about again and let’s hope that this is the case. But remember how we spoke last week about the possibility that it may happen again and if it does, then it would be more likely to happen if extra stress was occurring in your life. I also spoke about the fact that the early warning signs tend to be similar from one time to another, like a ‘relapse signature’.

C: Yeah, I remember us speaking about all of that but how can I make a difference if it happens again?

T: Looking out for these early warning signs is something that is really important and helpful that you can do.

C: But I worry that if I start to do this then all I’ll be doing is thinking about my next relapse and worrying about every little thought that I have.

T: I really believe that it doesn’t have to be like that at all for you. Obviously it would be better if you didn’t have to do this but making it part of your daily routine is possible. Just being aware of your level of stress and your sleeping patterns and keeping an eye on the content of your thoughts doesn’t have to interrupt your daily life, it’s just doing some little extra things to help with you staying well. Once you do this for a little bit of time it will become a habit which will make you less likely to forget.
**Non Adherent**

*a) The following example would receive a rating of -1 because the therapist utilised non-individualised statements about relapse triggers which would impact negatively on making the client’s relapse model personally relevant. Additionally, the triggers that were identified were not discussed in enough detail to adequately explain to the client the importance of them.*

T: It’s normally really helpful to understand the things that led up to this point of you feeling like things aren’t quite right.

C: OK, but I’m not really sure if anything has really happened that I can pinpoint.

T: Were you feeling more stressed than usual or using alcohol or other drugs?

C: A bit more alcohol and pot than usual, but nothing extreme. I was busy with school exams and it got pretty crazy there for a while, a lot of pressure, but that’s normal isn’t it?

T: Well, yes and that’s really important for us to recognise that all of that stress was going on. Stress can trigger worrying symptoms, and when things get busy in your life it’s really important to try and reduce that stress.

C: I get that, but it’s easier said than done.

T: I know. OK, so things in the future to look out for are stress and using alcohol and pot a bit more than usual. All of these things sound like they contribute to you not feeling on track and feeling like something is wrong. What do you think you can do to help with that?
Non Adherent

b) The following example would receive a rating of -1 because the therapist is didactic and doesn’t attempt to tailor the discussion to the client. There is no encouragement by the therapist for the client to think for themselves and the consequences for the client’s strategy of avoidance is not fully explored. This exchange fails to enhance the client’s understanding of why catastrophic or negative thoughts in relation to relapse are important to consider.

T: What do you think you will do if these worrying symptoms come back again in the future?

C: I don’t think they will, so I haven’t thought about it.

T: You’re not worried that they might come back again?

C: No.

T: There’s always a possibility that they may come back again, especially if your life gets a bit stressful and busy in the future. I want to talk about that with you and if things do get bad again for you how you will approach it?

C: I would prefer not to think about it actually. I think that is the best way for me to deal with it, don’t you?

T: No, I don’t. Is this typical of the way you approach things that you don’t want to have happen, avoid thinking about the possibility?

C: Yeah, if things are going well and back on track why would I want to think about the bad times I’ve had. I just want to move forward with my life.
T: That’s fair enough to an extent. But you need to pay attention to the worrying thoughts if they come again. You shouldn’t ignore them, they’re important. Can you do that?

C: But won’t thinking positively be best. You’ve told me to try and not think negatively.

T: I know that. But ignoring or avoiding the possibility of these thoughts coming back won’t be helpful. The worrying thoughts are going to impact on you and your mood even if you try and avoid or ignore them, and if your mood lowers the worrying thoughts may become worse. Is that clear to you? Now, what worries do you have?

C: I don’t have any worries about all that.

T: Can you see where I’m trying to come from? Can you monitor your thoughts a bit more and if there are any thoughts about those worrying thoughts coming back can we talk about them?

C: OK, if there are any, but there’s not at the moment.

**Distinctions from other items**

•**Problem List**
Assessment of previous relapse will normally involve an assessment of previous problem areas. To be scored as assessing relapse however, the therapist must also be emphasising the detailed antecedents of an episode.
Appendix E

The Working Alliance Inventory - Observer rated - Short form (WAI-O-S)
(Copyright: Horvath, 1991)

If a statement describes the way you always (consistently) perceive the dyad, record the number 7; if it never applies to the dyad, record the number 1. Use the numbers in between to describe the variations between these extremes.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>Rarely</td>
<td>Occasionally</td>
<td>Sometimes</td>
<td>Often</td>
<td>Very Often</td>
<td>Always</td>
</tr>
</tbody>
</table>

| 1. There is agreement about the steps taken to help improve the client’s situation. |
| 2. There is agreement about the usefulness of the current activity in therapy (i.e., the client is seeing new ways to look at his/her problem). |
| 3. There is a mutual liking between the client and the therapist. |
| 4. There are doubts or a lack of understanding about what participants are trying to accomplish in therapy. |
| 5. The client feels confident in the therapist’s ability to help the client. |
| 6. The client and the therapist are working on mutually agreed upon goals. |
| 7. The client feels that the therapist appreciates him/her as a person. |
| 8. There is agreement on what is important for the client to work on. |
| 9. There is mutual trust between the client and the therapist. |
| 10. The client and the therapist have different ideas about what the client’s real problems are. |
| 11. The client and therapist have established a good understanding of the changes that would be good for the client. |
| 12. The client believes that the way they are working with his/her problem is correct. |