The expectations of experienced and novice clinical psychologists regarding course of change for clients undertaking successful cognitive behavioural psychotherapy.

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Abstract

The present study explored the expectations of both experienced clinicians and clinical psychology students when predicting the course of change for both a depressed client and an anxious client undertaking successful cognitive behavioural therapy (CBT). Experienced clinicians and clinical psychology students were asked to complete a task based on case study scenarios. A specially designed graph enabled participants to plot scores for three separate measures: an inventory for mood, an inventory for symptoms and a behavioural record of activities.

The course of change in psychotherapy, whilst being an important component to understanding the process of outcome in psychotherapy, has received little attention from researchers. Although there has been a growing emphasis on the need to measure outcomes and provide feedback, a unified understanding of the course of change has not been identified. A number of theories have suggested stages of motivation and an individual's likely process of assimilating problematic experiences, however these are largely based on group data, and do not take into account individual characteristics. This study therefore aimed to explore the course of change expected in successful CBT (the dominant theoretical orientation used amongst New Zealand clinicians) to identify the expected change patterns between clinicians and students, and their meaning. It also aimed to identify relationships between mood, symptom and behaviour during the therapeutic process, and determine key aspects that act as a basis for future research in this area. Findings showed that overall participants predicted a gradually declining linear progression, although differences in variance and trends were found between and within the clinician and student groups. Limitations, implications and future directions of this study are also discussed.

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Introduction

In clinical practice, the main aim of a psychotherapist is to work alongside their client in order to achieve a successful outcome. Ideally this is to relieve symptoms currently causing impairment, followed by the achievement and maintenance of significant change in the client's day to day functioning. As would be expected of a science-based construct, modern psychotherapy began with an inherent need for validation through research. Due to this emphasis on successful outcome, and to an extent prompted by Eysenck's (1952) article claiming psychotherapy to be comparable in effectiveness to no therapy at all, researchers have been seeking answers about the benefits of psychotherapy and the nature of the outcome produced by such methods of treatment. Furthermore, the varying forms of psychotherapy that have been developed over the years have been put under the scrutiny of research in identifying the nature of which theoretical orientations are best in responding to the different forms of mental illness.

In the psychological community, there is a debate regarding which orientation of psychotherapy, if any, is superior to others. Some researchers acknowledge the presence of the Dodo bird effect which proposes that all therapeutic methods are equally effective: "all have won and all shall have prizes" (Rosenzweig, 1936). The Dodo bird effect acknowledges the role of common factors that are theorised to be evident in a number of psychotherapies. These common factors represent such therapeutic concepts as the therapeutic alliance, an empirically sound rationale of the individual's current impairments and expectations of change of both the client and the therapist (Kazdin, 2005). Those in the psychological field who do not agree with this line of thought indicate that specific factors are responsible for the effect of psychotherapy, that each and every orientation has a certain factor that plays a major role in the personal change

clients experience in therapy (DeRubeis, Brotman, & Gibbons, 2005). This argument mainly centres around the idea that common factors can only be supported if: 1) comparison studies of different psychotherapies produce null results and 2) therapeutic alliance and outcome are supported by a statistical relationship (DeRubeis et al., 2005). Like the argument agreeing with the common factors notion, there is evidence that both supports and refutes the argument against.

The type of treatment advocated for specific types of psychological impairment are not subject to as much debate, with the Diagnostic and Statistical Manual (DSM-IV-TR) (American Psychiatric Association, 2000) providing suggestions as to what treatments have been found to be most successful in reducing particular symptoms based on the current literature. However, knowing which treatment is most useful for a specific disorder or set of symptoms is not enough for researchers. Researchers are also interested on focusing on the client characteristics that impact on treatment progress (mediators) as well as moderators, the mechanisms in therapy that promote change (Kraemer, Wilson, Fairburn, & Agras, 2002).

Regardless of which orientation and techniques is better suited to what type of disorder, the predominant focus of psychotherapy is change within the client. Therefore, the continuous expansion of knowledge surrounding the general principles of change could potentially be of greater benefit in psychological practice (Carey et al., 2007; Evans, in preparation). Subsequently, interest has since turned to focus on the nature of how clients change, what their change looks like and how it can be predicted. In an attempt to assess the dose-effect relationship in psychotherapy, Howard and colleagues (Howard, Moras, Brill, Martinovich, & Lutz, 1996) identified a need for research in this area and termed it *patient centred research*. By definition, this research focuses on

monitoring a client's progress over the course of therapy. The purpose of this is to identify whether or not a client is responding to therapy in a positive manner (Howard et al., 1996).This is the form of research this thesis aims to assess, although at a more basic level.

In the hopes of forming an empirical basis on how to predict an individual's likely process through therapy, six parties have been identified as having an invested interest in research pertaining to the evaluation of psychotherapy (Howard et al., 1996). First and foremost, patients, as the recipients of treatment, need to be reassured that any method used in treating them has been shown to be effective in reducing the symptoms associated with their psychological impairment. Secondary purchasers such as parents, employers or institutions (i.e. schools), also require the knowledge of consistent successful outcomes to ensure their confidence in the effectiveness of a method used for the individuals they are responsible for. Clinicians too need to be reassured that the treatments they are using are relevant and beneficial to the clients that they treat. Another interested party concerns managers and sponsors whom represent organisations such as private practices and the District Health Board. Their role lies largely in the allocation of treatment resources as well as the provision of funds, and therefore need to be confident that they are allocating the right amount of funds to treatments that are suitable to a particular diagnosis. This is further emphasised by the issue of accountability where clinicians and service providers need to be able to rationalise why they have chosen to use a certain form of treatment as opposed to others (Lambert & Vermeersch, 2008). Lastly, researchers also benefit from different findings, as these allow expansion on the current knowledge, and create further ideas that lead to enhanced practice.

Understanding of the course of change is likely to benefit all six of the parties outlined above, with the aim to enable the improvement of better practice. In order to contribute to this understanding the goal of my thesis was to examine what sorts of patterns of change therapists (and therapists in training) *expect* might happen during the course of treatment and beyond. It is also important to acknowledge that my study will not be definitive, but may open up for further research in the area of clinical expectations for change.

When looking at change, one must first acknowledge the most frequently used form of therapy. In New Zealand specifically, the psychological approach most commonly used in clinical practice is Cognitive Behavioural Therapy (CBT). This is due to CBT being the main theoretical orientation used in educating potential clinical psychologists in New Zealand's tertiary institutions (Evans, 2002; Kazantzis & Deane, 1998). As opposed to their British and American counterparts, a far greater proportion of New Zealand therapists prefer using CBT as their predominant approach in therapy (Kazantzis & Deane, 1998). Furthermore, CBT is recognised empirically as the leading therapeutic approach in the treatment of anxiety and depression (Bennett, 2009).

When reviewing the research that focuses on the assessment of client's process of change across all sessions attended in psychotherapy, studies are limited (Orlinsky, Ronnestad, & Willutzki, 2004; Stulz, Lutz, Leach, Lucock, & Barkham, 2007). The lack of research into the process of change is due to such research involving costly longitudinal methods. Additionally, it is a long, laborious process to work through the vast amount of data that would be produced from following an adequate number of clients through the therapeutic process. Despite the barriers in conducting these types of studies, the literature published thus far demonstrates that following a client's progress

through therapy enables a therapist to obtain feedback that enhances their ability to ensure that the client is progressing with therapy in a manner that is predictable based on their individual characteristics (Lambert & Vermeersch, 2008). This ability to manage outcome has been proposed to be more advantageous for psychotherapy research than finding more diagnostic matched therapies, as it allows a more individualistic approach for each client (Lambert & Vermeersch, 2008). Whilst acknowledging this benefit, problems arise regarding the fact that clinicians hold considerable faith in their ability to exercise clinical judgement. Clinicians have then viewed this way of management as invalidating their capacity to recognise if clients are not responding to therapy adequately, as well as their ability to respond accordingly to ensure the client starts to respond to treatment positively (Lambert & Vermeersch, 2008). The addition of more paperwork for the clinician also creates difficulty, especially for those involved in busy practices.

In reviewing the current state of the literature, which is minimal in terms of the benefits of feedback, it is clear that although following client progress is important in terms of successful outcome in therapy, an exact idea of what is typical change from a clinical psychologist's point of view is virtually unknown. The aim of the present study is to gain an understanding of what clinicians expect by way of change in their clients, and which factors may be influential in the formation of these judgements. These issues will all be discussed in the following sections, providing an understanding of the background which leads to the importance of this form of research in today's psychological practice. When approaching this from a New Zealand perspective it is also important to acknowledge a CBT basis as it is the form of therapy most frequently used in clinical settings.

History of Change Research

Importance of measuring outcomes.

Although measuring outcomes is assumed to be an important component in identifying change processes in psychotherapeutic treatment, it is yet to be a commonly incorporated ideal in clinical practice (Trauer, 2010). Typically, in research and practice, change has been assessed at pre-, mid-, and post-treatment (Groth-Marnat, 2003). Follow up measurements are usually assessed at the first, third, and sixth month after the cessation of therapy. As a result, research has recently focused on the suggestion that tracking outcome across the therapeutic process has the potential to enhance care within the clinical setting.

Measuring outcomes with standardised measures is thought to be beneficial for all parties involved. The client and clinician find benefit in the promotion of communication. This is in the form of treatment planning and the building of goals. Furthermore, utilising outcome measures allows the clients progress to be followed in a way that is visible to the clients themselves, enhancing their self-efficacy, empowerment, and recovery. It also enables clinicians to identify any problems and needs that the client may not be revealing explicitly in sessions (Trauer, 2010) such as when a client portrays a happy exterior in therapy, when in fact their symptoms are considerably high.

Direct care providers also benefit. Measuring a client's outcome keeps clinicians informed on decision making processes as well as establishing which outcome measurements provide the best understanding of mental illnesses, in terms of the context in which they are used, and their ability to evaluate (Trauer, 2010). Also,

measuring outcomes allows policy makers and funders of mental health practices to be aware of the benefits of certain treatment protocols based on the comparisons between other services available (Garland, Kruse, & Aarons, 2003). In a way it also provides an evaluative strategy and can establish where improvements can be made in mental health services (Garland et al., 2003).

Although there are a number of benefits, barriers to the use of outcome measurement are abundant. This is mainly from the clinicians point of view, who find measuring outcome time consuming. More paperwork is required due to the administration and scoring of tests (Hayes, Miller, Hope, Heimberg, & Juster, 2008). Clinicians also find that the standardised measures used do not reflect the unique qualities of a client, such as the meaning of certain symptoms in particular cases, and can intrude on the therapeutic relationship with the need to complete measures at every session (Trauer, 2010). Not only are there practical concerns, but a clinicians own clinical judgement is thought to be undermined as mentioned previously (Trauer, 2010).

Despite the problems and lack of evidence supporting these claims, measuring outcomes in CBT in particular is important due to its goal oriented nature. It is necessary to follow change that the client implicitly and overtly displays in order to assess whether the goals are being met and whether the client is progressing in a way that will benefit them.

The importance of feedback.

With the ability to measure outcome at each session, and to ensure that clients are progressing appropriately in psychotherapy based on these measures, a promising research area has been developed that centres on the provision of feedback on client

progress. Feedback, defined clinically, is the deliberate psychological intervention based on adjusting client progress if the client is not performing in a typical manner (Claiborn & Goodyear, 2005). More specifically and based on current research, feedback reflects if the clinician can predict the typical progression through therapy based on session-by-session outcome measurements By tracking the clients progress at each session, the therapist can adjust the intervention should the client show signs of failing to meet the expected requirements (Lambert, Whipple, Smart, Vermeersch, & Nielsen, 2001).

Although a recent avenue of research, the importance of feedback has been apparent since 1984, when Barlow, Hayes, and Nelson acknowledged that feedback enables clinicians to improve treatment, to extend and improve research, and to allow for the provision of accountability (Barlow, Hayes, & Nelson-Gray, 1984). Gathering feedback data has also been a key component of operant research, where behaviour is often measured session-by-session as frequency of the targeted response changes. One example of this is the work of White (1986). His work focused on a set of guidelines describing a specific behaviour and the conditions under which it occurred. This behaviour is then charted based on the frequency it occurs (known as the "celeration line"), creating a standard chart, and then comparing and evaluating rate of change (progress) alongside the standard chart.

More recently, the American Psychological Association (APA) (2006) has begun to show interest in this concept, with the APA 2005 Presidential Task Force on Evidence-Based Practice highlighting the use of evidence based practice in the health care setting as a necessity. With an acknowledgement that there is a need for therapists to integrate the best current research with their own personal judgement, changes have been made to the definition of clinical expertise. These changes are shown in the emphasis on

monitoring an individual's progress in therapy so that clinicians are informed of any changes, within therapy or outside therapy, that may affect a client's response to treatment (APA, 2006). Although an American organisation, this group has a heavy influence on mental health professionals in New Zealand.

The need for feedback has recently been emphasised by findings showing that even though clinicians can be confident in their clinical judgement, it appears that they are not always alert to treatment failure (Hannan et al., 2005). It is also notable that failure and deterioration in psychotherapeutic treatments is also quite high (Hannan et al., 2005). Knowing that clients expect progress, and that clinicians cannot be expected to identify all challenges that may occur, researchers have sought to demonstrate that predicting client's response to treatment was valid. Additionally they have tried to find a way to use this information to manage client outcome; these avenues of research are discussed below.

Progressing on from the development of patient-focused research in 1996 (Howard et al., 1996), researchers began speculating on whether or not this form of feedback is helpful for managing treatment outcomes. One study (Lambert, Whipple, Smart, Vermeersch & Nielsen, 2001) that examined this issue assigned individuals to an experimental group (feedback provided) and a control group (no feedback provided). This study predicted the expected pattern of client change in therapy and as the therapy progressed, client scores were compared with the therapists predicted course. Coloured dots were used to show the type of progress clients were following. White dots showed that clients were functioning at levels relative to a normal population, green suggested clients were making appropriate progress, yellow showed that the client was not making as much progress as expected, and red depicted an individual who was not meeting

treatment requirements. After dividing each of the groups into those that had received a yellow and red dot and those that did not, the authors found that feedback increased duration of treatment and had a positive effect on outcome (Lambert et al., 2001). More specifically, twice as many in the feedback group showed clinically significant improvement as opposed to their non-feedback counterparts. Again in support of feedback, those whose progress was expected to be positive showed a reduction in number of therapy sessions without reducing positive outcomes (Lambert et al., 2001). This study was then replicated and extended by Lambert and colleagues (Lambert et al., 2002) with the replication yielding almost identical results.

Other studies have also assessed whether or not patients benefit from the provision of feedback (Hawkins, Lambert, Vermeersch, Slade, & Tuttle, 2004). In one such study the researchers divided 201 outpatients into three groups: one group who received treatment as usual, one group for whom only the therapist received feedback, and the third group in which both the client and the therapist received feedback. Both feedback groups had better outcomes than treatment as usual when therapy ceased, with the group where both therapist and client received feedback showing more clinically significant outcomes (Hawkins et al., 2004). This study also found, however, that provision of feedback made little impact on those who showed little response to treatment.

While research posits that these discussed ideas regarding feedback are helpful tools for clinicians, the provision of feedback sustains the same barriers as measuring outcome, due to the use of standardised measure to ensure the client is progressing through therapy in a way that is positive. Despite the consistent and promising results, it seems that only a few clinicians advocate the use of session-by-session measurement; there is

still a long road ahead before its implementation is a prominent tool used by the majority of clinicians.

Theories of change in psychotherapy.

Prior to this emphasised importance of feedback, there had already been a number of theories derived based on the nature of the process of change in psychotherapy. From these theories (some of which are discussed below), authors have been able to take the information and design models that an individual will transition through whilst participating in psychotherapy. The Three Phase Model and the Assimilation Model are two such models. It is thought that for some, these types of models present a way of simplifying the understanding of behaviour, creating an understanding of what parts of behaviour can be targeted. Alternatively, these models may also provide a way of treating particular problems and maintaining a recognition of complexity (Whitelaw, Baldwin, Bunton, & Flynn, 2000). Following both the development of these models and the growing emphasis on feedback, clinicians began to focus on ways to predict client changes. Two are discussed in this section, the hierarchical linear model (HLM) and patient profiling. The models discussed here do not provide the only evidence on change progression in psychotherapy because research has also focussed on specific characteristics apparent at the beginning of therapy that can impact on the course of change, as well as other components that impact on different stages of therapy. These alternative concepts will also be discussed in the following section.

Clinical significant change: What counts as change?

To understand the theories that depict client change, it is important to first understand what counts as change. This begins with the issue between statistical change and

clinical change. While statistical significance has its benefits in indicating whether or not a client has shown genuine change whilst partaking in psychotherapy, clinical significance furthers this by focusing on understanding whether or not this outcome has a meaningful impact on a client's functioning in day to day life. This is typically achieved by assessing reductions in symptoms and increases in positive affect (Kazdin, 1999).

With an influx of outcome research in the early 1980s, researchers sought a method that could identify clinically significant change that indicated the practical or applied value of therapy. Until then, treatment efficacy was typically inferred using statistical significance (Ankuta & Abeles, 1993). This involved statistical hypothesis testing and was identified as problematic for two reasons. Firstly, these types of comparisons excluded vital information regarding individual variability in responses to treatment. While research showed significant effects, the results did not demonstrate how many people benefited from the therapy because only the grouped subject mean was presented (Kazdin, 1999). Secondly, between-group comparisons such as these offer little information on the practicality of treatment effects (Jacobson, Follette, & Revenstorf, 1984). Large clinical effects are typically clinically significant as opposed to smaller effect sizes, however, it has been noted that this is not always the case (Jacobson, Roberts, Berns, & McGlinchey, 1999).

Although there have been a number of attempts to provide solutions to the case of clinical significance, the method created by Jacobson and his colleague Truax (1991) has consistently been referenced as the method of choice. Originally beginning with their findings in 1984, this index has been reassessed and reworked (Christensen & Mendoza, 1986; Jacobson et al., 1999).These authors proposed two statistical indices

that are applied as equations to the impairment assessment scores, such as the Beck Anxiety Inventory, the Beck Depression Inventory, or the Inventory of Interpersonal Problems (Kazdin, 1999). These indices have been developed on the assumption that an individual begins therapy with a score representative of a dysfunctional population, indicative of meaningful change. Based on this assumption, the client should demonstrate functioning at a level reflective of the normal population following the cessation of therapy. Consequently, Jacobson and Truax (1991) proposed three cut-off points to determine this principle. The first cut-off point was obtained when an individual's level of functioning fell outside the range of dysfunction. This "functional" population was defined as beginning when a score fell two standard deviations or more from the mean of the dysfunctional population. The second cut-off was found when the client's scores fell within the range of the normal population, that is, anywhere within two standard deviations below the mean of the normal population. Lastly, when a client's functioning level was suggestive of the client being statistically more likely to be in the functional than the dysfunctional population, this was deemed to represent the third cut-off point.

The second index proposed is referred to as the Reliable Change Index (RC) (Jacobson & Truax, 1991). The RC is calculated by using the difference between the pre and post treatment scores of an individual, $[2(SE)^2]^{1/2}$, and dividing this by the standard error of the differences between the two test scores, SE = $[1 - r_{xx}]^{1/2}$. If the RC calculated is more than 1.96, it is less than .05 probable that the mean difference occurred by chance. A client whose post intervention score is closer to the functional population mean rather than the pre intervention score is regarded as having significantly improved (Speer, 1992).

There are a number of benefits provided from the use of clinical significance. Not only does it provide meaningfulness to positive outcomes, it also has the ability to assess the overall rate of clients who show statistically significant deterioration, which is evident in those whose clinically significant change is in the opposite direction of the functional population (Jacobson et al., 1999). Clinical significance also has the benefit of enabling researchers to determine the number of clients who recovered from therapy, the number of clients who showed partial improvement, and the number of clients who showed no change (Jacobson et al., 1999). Another advantage of this method is that it is not restricted to one specific diagnosis, unlike previous methods (Jacobson & Truax, 1991).

Although clinical significance allows clinicians and researchers to determine whether or not change has occurred, the interpretation of clinical significance methods depends on whether or not, and to what extent, the measurements adequately reflect the type of impairment the client has sought therapy for. Hence, clinical significance can be shown to occur through these methods, but its importance and practical application is only truly noteworthy if it relates to the main symptoms impairing the individual's life. This decision is typically made on the basis of clinical judgement (Speer, 1992).

In relation to the treatment of anxiety disorders and depression in particular, a combination of methods can be used to determine change. Whilst one can use the RC to see if it is clinically significant, it is still predominantly a pre and post therapy measure. Psychologists are recommended to use other forms of outcome measurements when assessing client change. Clinical judgement along with standardised tests, individualised assessment measures, client self-report and behavioural indicators have also been suggested as essential in fully understanding change in the clinical setting (Fitzgerald, 2007). Firstly, clinical judgement is important in determining change in the client as

they are aware of changes that are overtly displayed by the client and is an essential component in interpreting measures that are used in assessment (Groth-Marnat, 2003). Following the progress of individuals through the use of inventory results throughout the course of psychotherapy, either as a standardised measured or individually adjusted, enables the clinician to not only establish whether or not change has taken place, but also what type of change is occurring (affect, symptomatic, or behavioural). It also can show what phase of the treatment the majority of change has occurred (Trauer, 2010). Although not directly related to an understanding of the change path of an individual, use of these measures can provide clinicians with an understanding of whether or not change is occurring and can compare a certain client's results alongside other clients who attend therapy with similar issues (Lambert & Vermeersch, 2008).

New Zealand clinicians have been shown to use measures prominent in American practice, however, have over the years adjusted these in a way that is distinctly cognitive behavioural, while also keeping the traditional importance intact (Patchett-Anderson, 1997). The measures that have been found to be predominantly used in clinical practice in New Zealand in the assessment of depression and anxiety include the clinical interview, the Beck Depression Inventory, the Beck Anxiety Inventory, and the State-Trait Anxiety Inventory (Hodgetts et al., 2005; Patchett-Anderson, 1997). Behavioural indicators and client self-report add another dimension to the understanding of change. Particularly in the case of an anxious or depressed client, behavioural indicators can identify whether or not avoidance is an underlying element in a client's impairment. Client self-report's provide information directly from the client's perspective, providing a first-hand interpretation of how the client is feeling as a result of therapy, allows an understanding of the client's level of motivation, and can reveal

issues that may not be clearly visible in the clinical setting (Fitzgerald, 2007). A combination of some or all measures discussed here will provide the clinician with a well-rounded understanding of the impact of therapy for an individual (Antony & Barlow, 2010).

Three phase model.

Prior to creating the Three Phase Model, Howard and colleagues (1986) demonstrated a log-linear association between length of psychotherapeutic sessions and clinically significant change within the client. This finding showed that change was characterised by very rapid initial improvement, with smaller changes occurring over the rest of treatment. Subsequent to the dose-effect model, studies shifted to a focus on the pattern of change. Researchers identified a need to specify a change theory that fosters an understanding as to how individuals progress through therapy and how therapists can enable the appropriate amount of progress through the stages to provide significant results in a reduced amount of time (Howard, Lueger, Maling, & Martinovich, 1993; Howard et al., 1996). The three phases depicted are remoralization, remediation, and rehabilitation.

Remoralization. An individual entering therapy in this phase is typically hopeless and desperate (Howard et al., 1993). With their difficulties becoming almost too much to handle, they become consumed by their current issue, and it is difficult for the individual to enact their usual coping mechanisms, causing severe impairment. Thus, the first stage of therapy entails the enhancement of subjective well-being. Howard and colleagues deem this phase as successfully completed when three factors have been cultivated. The first factor entails the development of a successful therapeutic alliance. That is, the client trusts the therapist and has developed a significant durable

relationship with a deep emotional connection. Secondly, the client accepts that their problem is at least partially internal rather than wholly external. Thirdly, the client and therapist need to build a working alliance base on an implicit contract aiming to work together in understanding the clients psychological functioning (Howard et al., 1993). This phase is typically completed in a few sessions.

Remediation. In its simplest form, Howard and colleagues (1993) described this phase as focusing on the reduction of problems that are central to the reason the client has sought treatment, whether that be in terms of symptomatology, life problems, or both. These issues are addressed by assisting clients in enacting their coping skills, as well as encouraging the development of skills that operate more effectively than those the client have previously utilised. In a typical treatment plan, this would be completed within sixteen sessions.

Rehabilitation. With the symptoms reduced, clients are then helped to maintain the improvements and discover the pervasive patterns that could be leading to this type of impairment. Therefore, it is not a matter of the problems going away, but preventing the reoccurrence. The goal is to resume previous roles to their full capacity and functionality or to adapt new, healthy roles. This type of change can take up a long period of time depending on such factors as severity and duration of the problem (Howard et al., 1993).

Howard and colleagues (1993) original article on this model showed findings supportive of clients progressing through this paradigm. Change was seen to be evident first in an individual's well-being followed by reductions in symptom distress and concluding with enhancement in life functioning. This research showed that each phase is dependent on the completion of the one previous to it. It was also evident that changes

in phase one happened quickly, took slightly longer in phase two, and phase three took the longest to proceed through. This study has been replicated a number of times (Barkham, Rees, et al., 1996; Callahan, Swift, & Hynan, 2006; Hilsenroth, Ackerman, & Blagys, 2001; Kopta, Howard, Lowry, & Beutler, 1994; Stulz & Lutz, 2007) revealing supportive and partially supportive results. These studies provided evidence for both change within clients consistent with the phase model, and support for the decelerating curve proposed by the phase model.

Assimilation model.

The assimilation model, heavily influenced by behavioural therapy (Barkham, Stiles, Hardy, & Field, 1996), was developed in response to a need for a linear model linked to statistical psychotherapeutic change (Stiles, 2006). Like the phase model, Stiles and colleagues (Stiles et al., 1990) indicated that clients engaging in successful psychotherapy progress through different stages of their problematic experiences. This allows these experiences to be integrated and understood within their own framework through the process of psychotherapy (Stiles et al., 1990). It is an integrative model, with acknowledgement that the assimilation of these experiences is a common change mechanism apparent in the majority of psychotherapies. The authors acknowledge that there is some resemblance between the SOC theory and the assimilation model with there being an ability to begin therapy at any stage, the following of a sequential process which can revert back to previous stages (Barkham, Stiles, et al., 1996).

The main components of this theory concern schema, problematic experiences, and the complementary process of assimilation and accommodation. A *schema* is structured constellation of associated ides based on an individual's personal understanding of their experiences and the assumptions associated with these (Barkham, Stiles, et al., 1996). A

problematic experience is a "perception, intention, impulse, attitude, wish, fantasy, or idea" that when enacted, brings psychological discomfort (Stiles et al., 1990, p. 412). The concepts of assimilation and accommodation depict the process involved when incorporating new experiences with already established schema. Whilst assimilation integrates, explains and incorporates the experiences, accommodation simultaneously allows change within both the schema, to allow for the adaption of new material, and within the experience, to allow its incorporation into the schema (Barkham, Stiles, et al., 1996). Thus, the process of therapy focuses on the assimilation of problematic experiences with new, more appropriate material being introduced into the schema of which these experiences are associated.

Based on this understanding of schema, problematic experiences and assimilation and accommodation, the assimilation model incorporates eight stages depicted as the individual's internal voice described as developmental changes clients have in their experiences. The first stage consists of the developmental stage *warded off*, where a client is completely unaware of the problem. This can be characterised by clients presenting with problems but being unaware of the causes, as well as those who show minimal affect suggesting successful avoidance. The next stage entails *unwanted thoughts* where an individual shows some signs of psychological discomfort and some awareness of the issue but denies any knowledge when addressed by others. Affect is strong, and the client finds it difficult to connect the content of therapy with their own situation. The third stage, *vague awareness/emergence* stage, posits that the client acknowledges both the issues existence and their discomfort with it, yet they are not quite able to understand the origin of their problems. Acute psychological pain is associated with this stage, which is directly evident of the problematic experiences the

individual has enacted. The fourth stage entails *problem statement/clarification* where the problem is broken down and addressed as something that can be changed. Although affect is typically negative at this stage, it is manageable. The *understanding/insight* stage follows, where the problematic experience is allocated to a schema and formulated with connective links. Affect is typically mixed dependent on the client's feelings regarding these recognitions. Individual's follow this by moving onto the *application/working through* stage. This newfound understanding is used to work on the client's issues although individuals are completely able to overcome their problems completely; however optimism is a characteristic predominant in this stage. The next stage addresses *problem solution* depicting the individual's successful dissolution of the problem and characterised by positive affect. Finally, the last stage entails *mastery*, where the client has the ability to generalise their solutions to new situations. To enhance the utility of this model in clinical practice, this entire sequence has been developed as the Assimilation of Problematic Experiences Scale (APES), a framework that enables clinicians to identify the client's level of understanding (Newman & Beail, 2002).

Stiles (2006) explains change in the assimilation model as being characterised by fluctuations over the change process, with distress and symptom intensity varying across all stages. When an individual enters therapy in the warded off or avoided stages, clients are encouraged to acknowledge and confront their problematic experiences and it is assumed that their mood will deteriorate before improvement is possible. It is expected that negative mood is at its height during the vague/awareness phase. Following this stage and up until mastery, clients are encouraged to identify, label, and formulate their problems; building a well-rounded understanding that can assist them in

experiences with it in day to day life. These stages are typically characterised by improving positive affect, with the most rapid improvement occurring between the stages of application/working through and problem solution. Clients conclude this model in a state relative to the normative population. Research in the area of the assimilation model heavily lies in qualitative research with an emphasis on case studies. Researchers in this field acknowledge that selected case studies do not directly test the model, but only serve to illustrate a qualitative approach in understanding the assimilation model (Stiles et al., 1991). These case studies are typically presented with individuals who are expressing depressive symptoms (Brinegar, Salvi, & Stiles, 2008; Field, Barkham, Shapiro, & Stiles, 1994; Gabalda, 2006; Honos-Webb, Stiles, Greenberg, & Goldman, 1998; Stiles et al., 2006), anxious symptoms (Stiles, Meshot, Anderson, & Sloan, 1992; Stiles et al., 1991), and characteristics of personality disorder (Humphreys, Rubin, Knudson, & Stiles, 2005; Osatuke et al., 2005); all with varying results ranging from some support to an illustration of a client's progression through the assimilation model. From these studies, it can be assumed that much of the research is down to interpretation, and that this model supports a non-linear mode of change. Studies on successful to unsuccessful cases (Detert, Llewelyn, Hardy, Barkham, & Stiles, 2006; Honos-Webb et al., 1998), showed that those who gained positive outcome followed through the assimilation process whilst those who had poor outcome did not.

Predictive models of change.

With the understanding of these models and feedback having been established as a viable concept, researchers began to develop methods built to assess a client's likely progression through therapy. This led to the development of Hierarchical Linear Modelling (HLM) and patient profiling.

HLM (Bryk & Raudenbush, 1987), is a promising method used in the prediction of client change. It requires fewer assumptions and accounts for more variance than previous models used in predicting linear change (Leon, Kopta, Howard, & Lutz, 1999). Based on a two stage conceptualization, this model combines the client's clinical characteristics to predict their expected response to therapy. The first stage is represented as an equation that depicts an individual's impaired trait as "a function of an individual growth trajectory plus random error" (Bryk & Raudenbush, 1987, p 148). The second stage is centred on the differences between individuals, which assumes that variability in the first equation will occur across individuals based on their background and environment (Bryk & Raudenbush, 1987). Although established over two decades ago, feedback and outcome research has only recently begun to show the promise this method has as a tool that allows researchers and clinicians to model individual change and predict future improvement (Raudenbush & Bryk, 2002).

HLM's primary focus centres on general predictions, thus patient profiling was established in response to the need for a model that was applicable to individuals only (Howard et al., 1996; Lueger, Lutz, & Howard, 2000). Prior to the development of this line of research, most clinical investigators were exploring methodological avenues in an attempt to develop a theory or model that would answer the question "will this treatment work"? This involved actively seeking a measurement that had empirical support and the ability to assess and monitor treatment process, session-by-session Furthermore, the theory researchers sought after would need to be based on a prediction methodology, with acknowledgement to how the client should respond to treatment. Other requirements included a model or theory that followed a procedure which

delineated variables that differentially influenced the patients response to treatment (Leon et al., 1999). The theory that was then derived entailed patient profiling.

Patient profiling tracks treatment outcome of patients session-by-session to ensure a therapist is able to asses client progress easily, as well as providing a visual assessment available for viewing by important investors in the treatment (such as the client, manager of practice etc.). Additionally, this method has the ability to predict the progress a client is expected to make throughout the course of therapy. This is achieved by obtaining potential predictors from pre-treatment clinical data accumulated from a large sample of patients that have been subjected to repeated assessment on outcome variables (Lueger et al., 2000). This information is then used alongside the HLM to estimate patient progress, with the intercept indicating initial status and the rate of change illustrated by the degree of slope. The rate of change is indicated by change per session. In the search of empirical support, Lutz, Martinovich, and Howard (1999) used the Mental Health Index (MHI) to score alongside the HLM techniques to map client progress with the dose-effect model and the three phase model as its underlying theory. Expected progress was adjusted to support such variables as severity of impairment and chronicity of the condition. The main focal point of this procedure was to determine whether treatment was appropriate for the client (Lutz, Martinovich, & Howard, 1999) and whether it was appropriate to be used in monitoring client progress throughout the course of therapy. Findings showed that this model did have predictive value and held promising results in enhancing therapist's ability to monitor and manage their clients.

In a study targeting impairments associated with anxiety and mood disorders, patient profiling was assessed for its applicability and potential (Lueger et al., 2000). Patient

profiling was found to be able to discriminate characteristics between patients without allocating those presenting as depressed or anxious to similar growth curves.

Patient profiling not only extends the previous theories of change to be able to predict expected change dependant on individual characteristics, it helps clinicians understand what to expect in terms of how an individual will respond to treatment as well as whether or not it is beneficial for the client to even initiate therapy. Implementation in the clinical setting will add further support to this concept to establish this method as a sound and easily utilised tool for clinicians to use within the clinical setting.

Client change in CBT.

Research focussing on the change process in CBT is relatively new, with no known progression having been indicated. For the most part, the current literature available is focused on cognitive mediation, with Kwon and Oei (2003) outlining three types of processes that change follows in group cognitive behavioural treatment of depression. The *causal cognitive model* suggests that cognitive intervention first targets the negative automatic thoughts that cause and maintain psychological impairment (Oei, Bullbeck, & Campbell, 2006). This is then thought to provide a reduction in the client's depressive symptoms. Therapy then aims to replace the individual's current dysfunctional attitudes with more adaptive lines of thought resulting in further reduction (Oei et al., 2006). In contrast, the *consequential cognitive model* purports that the reduction of symptoms lead to the reduction in negative automatic thoughts and dysfunctional attitudes. It suggests that an unknown factor is present that provides symptomatic relief and that this notion is supported by the fact that other therapies provide cognitive relief (Oei et al., 2006). Finally, the *interactive cognitive model* proposes a reciprocal relationship between cognitive change and symptom reduction (Oei et al., 2006). That is, therapy

changes attitudes and automatic thoughts, reducing symptoms, which in turn further reduce the number of dysfunctional attitudes and negative automatic thoughts. These three models were tested using SEM and found that the causal model provided the best fit, however there were a number of problems associated with the power of analysis (Kwon & Oei, 2003). In a replication and extension of this (Oei et al., 2006), results showed that over a 12 session course of therapy, depressed feelings and negative automatic thoughts showed reductions throughout, whereas dysfunctional attitudes showed no further reduction after session seven. The results also showed that the interactive cognitive model was more fitting to CBT designed for depression, suggesting that it is more than the application of cognitive techniques that elicit symptom reduction, such as the aspects of behavioural activation.

The behavioural component of CBT also suggests that techniques such as homework compliance (Addis & Jacobson, 2000) and muscle relaxation promote symptomatic change. Homework compliance specifically predicts change within a client early on in a 20 session course of CBT (Addis & Jacobson, 2000).

Other aspects specific to CBT have also been the subject of research recently, including an understanding of discontinuous patterns over the course of therapy described as supportive of a dynamical systems theory.

Dynamical systems theory is a mathematical concept which has been applied to a number of systems, including psychotherapy (Hayes, Laurenceau, Feldman, Strauss, & Cardaciotto, 2007). This theory focuses on change within a physical system, proposing that transition is heavily influenced by "critical fluctuations"(Keslo, 1997). When the introduction of new elements become too great for a system to assimilate, change is thought to no longer be gradual and linear. Instead the system experiences severe

disturbances which increases variability before the system can reorganise itself (Keslo, 1997). Along with these destabilizing fluctuations, an opportunity to receive new information becomes available allowing for the exploration of better fitting patterns within the system. These new patterns then compete and compromise with the old, less practical patterns, until a new dynamically stable state is achieved (Keslo, 1997).

When generalising this theory to psychotherapy, emphasis is placed on the interventions where unhelpful patterns are interrupted, challenged, and destabilised, such as CBT (Hayes, Laurenceau, et al., 2007). While acknowledging this, it is important to note that therapy is fundamentally a stable environment where clients develop skills and build awareness of resources available to them. This theory instead focuses on the techniques utilised within the confines of each session. Also, whereas this theory depicts change as non-linear and discontinuous, it also states that it can be linear and gradual, acknowledging that every individual responds differently to therapy and its components. Hayes and colleagues (2007) have identified findings related to the treatment of both anxiety and depression that highlight a relationship between the nonlinear and discontinuous nature of the dynamical systems theory and psychotherapy. This area of research is still under development as it requires multiple assessments on individual treatment to provide meaningful results which can be lengthy and time-consuming, as opposed to the preferred method of compiling group assessments.

More specifically, psychotherapy focused on treating depression has been subjected to research concerning discontinuities in change over therapeutic sessions. The “early rapid response” (Ilardi & Craighead, 1994) is one of these discontinuities that has been found to occur during therapy (Hayes, Feldman, et al., 2007) . This concept is characterised by a sharp decrease in symptoms, and typically occurs by session four.

Change levels off over the remaining sessions. There have been a number of ways that early rapid response has been defined, with the majority of studies on this topic proposing that change fits the criteria of an early rapid response when 60% of the total change for a client occurs in the first four sessions (Lambert, 2005). Empirically, there has been some disagreement as to whether or not the early rapid response is actually a concept inherent in CBT as the changes are expected to occur prior to any significant cognitive work taking place.

Sudden gains is another form of discontinuity that provides insight into the non-linear understanding of change (Tang & DeRubeis, 1999; Tang, DeRubeis, Beberman, & Pham, 2005). These are considered apparent in therapy when an individual shows dramatic improvement between two sessions. Typically, a sudden gain is said to have occurred when it has occurred directly between two sessions and shows change comparable to seven or more points on the Beck Depression Inventory (Tang & DeRubeis, 1999). This improvement typically occurs early on in therapy and, unlike the early rapid response, is not confined to occurring within the first four sessions. Another important aspect of the sudden gain is that the change does not reverse. Despite what the definition suggests, a client can exhibit a rise in symptoms or increased negative affect, however if a client's score on outcome measurements show a clinically significant decline, the pattern of change cannot be considered to be a sudden gain.

The depression spike has recently been established as a non-linear function of change in the treatment of depression (Hayes, Feldman, et al., 2007). This is characterised by a substantial increase in depression symptoms which is then followed by a decrease in symptoms. Clinically, a depression spike is defined along the same lines as Tang and DeRubeis' (1999) definition of a sudden gain, that being at least a seven point

improvement on the BDI, and is differentiated from a sudden gain as the improvement is not required to be sustained. Other methods of measurement have also been adjusted to adapt to this definition. As suggested, research is relatively new in this area, with results showing so far that these are not typically reserved for the earlier sessions of therapy, as with early rapid responses and sudden gains, but do tend to occur before the 11th session (Hayes, Feldman, et al., 2007).

Similarly, non-linear concepts have been identified in the psychotherapeutic treatment of anxiety disorders. In particular, exposure based techniques due to the emphasis on change induced by emotional arousal (Hayes, Laurenceau, et al., 2007). The client's fear provoking structure is induced during therapy using an adequate level of affective arousal which then causes a disruption within the system. This disturbance allows new information to be explored, reorganizing the original structure so that it is more adaptive and less likely to cause impairment within the individual. Heimberg and Becker (2002) indicated three different patterns of change that can be observed over the process of exposure therapy. The first is a steady decline which is gradual and linear, anxiety being high at the beginning of this technique and reducing steadily over time. Secondly the spike, much like the depression spike, has been hypothesised to occur after first exposure to the fear inducing situation. Thirdly, the habituation curve, suggests a brief reprieve from symptoms similar to the early rapid response seen in depression. This is followed by the symptoms reaching their highest threshold, which is then relatively maintained across all sessions involving exposure.

Research on the concepts discussed for both of these disorders has found that if any of these types of changes occur within therapy, either or on their own or alongside each other, it is thought to be predictive of a positive outcome overall (Hayes, Laurenceau, et

al., 2007; Tang & DeRubeis, 1999). Furthermore, the bulk of the research in this area is typically based on cognitive behavioural therapies, providing a good basis which the current study can directly compare with.

Insight and motivation: influence on change.

Insight in psychotherapy is defined as the acquisition of new understanding (Castonguay & Hill, 2007). In CBT specifically, it is thought of as "gaining new perspectives on the origins, determinants, meanings, or consequences of their (or others) behaviours, thoughts, intentions and feelings" (Castonguay & Hill, 2007, p 57 - 58). At present there are mixed findings on whether more insightful patients have better outcomes, however, it has been suggested that it has an impact on both symptomatic and mood change. Symptomatic change is thought to reduce once an individual gains a better understanding on any of the above mentioned concepts. Insight is thought to have either a negative impact on mood in therapy, due to realisation making the individual feel worse, or a positive impact due to realisation providing relief, understanding, and empowering the individual to achieve their goals in therapy.

It is a common understanding that clients do not necessarily begin therapy open to change. Reasons for this include denial and attending sessions in an attempt to please others or to gain acceptance from the therapist (Ryan, Lynch, Vansteenkiste, & Deci, 2011). Other individuals arrive at therapy and do not care, or feel unable to commit or motivate themselves to change. In saying this, the effectiveness of therapy is highly dependent on the client's commitment and motivation to change within therapy, and thus a number of therapies incorporate mobilizing techniques to encourage a client's willingness to change (Ryan et al., 2011). Helpful with this is Prochaska and DiClemente's (1983) Stages of Change, which suggests adjustment of therapy to the

stage of motivation that a client is viewed as being at. This model suggests five motivational stages an individual can be assigned to beginning with the *pre-contemplation* stage. This stage reflects an individual who is viewed as having no intention of making changes now or in the near future in regards to any issues they are currently experiencing. This is followed by the c*ontemplation* stage, where an individual recognizes that a distressing problem exists and intends to do something about it within the next six months. The *preparation* stage entails an individual actively moving towards making the necessary changes to the issue that is impacting on their life. The stage of *action* is assigned when a client is involved with therapy and expending a considerable amount of time and energy to make a difference to their behaviour, experiences, and their environment (Prochaska & Norcross, 2001). The m*aintenance* stage involves active efforts in maintaining the changes achieved in the action and avoiding relapse (Prochaska & Norcross, 2001). If the problem has been managed and reduction in impairment has been sustained for over six months, it is considered as being a part of the maintenance aspect of change.

In CBT, self-motivation is an important element and receives much attention in the therapeutic setting (Ryan et al., 2011). There is also an emphasis on the client's expectations about the effectiveness of the therapy, as well as their own ability to change (Ryan et al., 2011) . Studies have found that the client's perception of the whole process of therapy has a greater correlation with outcome than other client and therapist factors, reflecting the importance of the client's involvement, perception of the therapist, and expectations of the therapy as a whole (Bohart & Tallman, 2010). Furthermore, expectancies are seen as a function of Bandura's (1996) "self-efficacy beliefs". Self-efficacy, as theorised by Bandura, is the core element in self-regulation

action. If an individual does not believe that they are able to change their behaviour then they are less likely to invest time and effort in doing so (Bandura, 1996). Research further agrees with this concept, suggesting that motivation and optimism enhances positive results (Westra, Dozois, & Marcus, 2007).

Other considerations in the study of change in psychotherapy.

While these theories provide a great deal of insight on how change progresses in psychotherapy, research is also available on specific components that can impact on the course of change that are apparent at the beginning of therapy or can be developed during the course of therapy. Similar to patient profiling, this area of research centres itself on understanding different aspects of change by taking into account variability in client's and what may cause this.

A long standing argument, spanning a number of decades in the psychotherapeutic community, is in regards to whether or not client change is achieved through factors that are similar with a number of therapies, or whether it is a result of the key tenets and techniques of the theoretical orientation of the therapy that the client is being treated with (Kazdin, 2005). These factors, known to researchers as "common factors', acknowledge a variety of techniques, features and characteristics of the psychotherapy being used, the client or the therapist (Kazdin, 2005). Needless to say, these factors need to be common in more than one type of therapy, however, they do not need to be represented in every type of theoretical orientation (Kazdin, 2005).

Those who support this idea of change through commonalities suggest that it shows its promise through a number of means. Firstly, effects seen in psychotherapy are quite reliable. Secondly, placebos that include active therapy produce greater change than

those placebos which are completely inactive. Also, common factors are typically factors that are consistent in the basic tenets of the therapy (Kazdin, 2005). Support for this notion also continues, or is at least interpreted in such meta analyses as Lambert and Ogles (2004), who reviewed a number of studies focused on treatment effectiveness and found that over all the literature available, treatment always yielded large effect sizes as opposed to no treatment. Also deemed as supporting evidence of the common factors stance is that results commonly associated with the comparison of two types of therapy typically don't show large differences between the two therapies. Effect sizes are much smaller and often outcomes are not statistically significant. Therefore, this evidence seems to show that whilst therapy is better than no therapy, the type of therapy will typically have no impact on the process of change.

In contrast, those who reject this notion have another way of reframing these ideas, such as DeRubeis, Brotman, and Gibbons (2005), who suggest that differences in treatment are evident and that it is all down to interpretation. They also suggested that to offer relevant support to the idea of common factors, research would have to show both null results from comparative outcome studies of different psychotherapies and a statistical relation between the therapeutic alliance and outcome. The authors argue that these two requirements have not been sought and that even though two treatments produce different or similar outcomes, including those that are not statistically significant, it does not bear direction on supporting common factors. In saying this, they also suggest that these differences and non-differences can be explained by the different/similar doses or degrees of specific factors and common factors (DeRubeis et al., 2005).

Four elements are considered when seeking to understand the themes consistent within the common factors approach; client and extra-therapeutic factors; models and

techniques, the therapeutic alliance/relationship and therapist factors (Hubble, Duncan, Miller, & Wampold, 2010). Client and extra therapeutic factors mainly relate to motivation and insight, which was discussed in the previous section; thus, the remaining three characteristics will be discussed here.

The model and techniques used in therapy have been a proposed common factor identified across a number of therapies (Hubble et al., 2010). With a conceptual framework based on whichever theoretical orientation the therapy a client is participating in is based on, it can offer an appropriate explanation to the client of their current difficulties (Anderson, Lunnen, & Ogles, 2010). It also provides a rationale behind the issues based on the theoretical orientation that is being used in this healing setting. In CBT, this is better known as the case formulation. Not only does this allow the client to begin to understand what is going wrong, but it provides a basis for which they can begin to form goals as a means to move forward (Anderson et al., 2010). This idea is supported by the fact that lack of structure and focus in therapy is a strong predictor of treatment failure.

Empirically and widely renowned as the most important element of common factors is the therapeutic alliance/relationship. With thousands of articles focussed on this area, it has a vast empirical basis along with studies showing its remarkable consistency in self-reports of clients in successful therapy (Hubble et al., 2010). The therapeutic alliance, which is interchangeably used with the term therapeutic relationship, entails a partnership that is developed between the therapist and the client that is based on the expectation of achieving the clients goals (Hubble et al., 2010). This suggests that the client and therapist are mutually equal in this relationship, and there is also an expectation of an emotional connection that lays its foundations on trust. There are a

number of factors that indicate what works when generally speaking about the therapeutic alliance (Norcross, 2010). The quality and strength of the relationship is most important. Research has consistently shown that a positive alliance is a very good predictor of positive outcome in psychotherapy (Kazdin, 2005). Not only that, but depending on the study one is analysing, the therapeutic alliance contributes five to seven times greater to the amount of change apparent in therapy than specific models or techniques (Hubble et al., 2010). Interestingly, however, research has also found that there is no correlation between length of treatment and strength of alliance. Empathic listening skills in the therapist is also important, as well as there being a collaborative effort between the therapist and the client as mentioned in the discussion of motivation and insight (Norcross, 2010). Agreement on goals also contributes to the strength of the alliance. If the therapist ignores the client's expectations and if the client takes on a closed minded stance, therapy will only go around in circles without the real issues being addressed (Norcross, 2010). That the therapist maintains positive regard, as well as being able to present with genuineness to their persona is also important. Another integral component of therapy is based on feedback. This is provided by the therapist and is based on the clients behaviour and/or the effects this behaviour causes and is only complete if a client appropriately receives it (Norcross, 2010). This in regards to the client's behaviour and/or the effects this behaviour elicits rather than feedback notion provided previously. Actively repairing any temporary alliance ruptures links into positive regard and provides a trusting environment. A therapist's use of personal snippets of their life to appropriately relate to the client, is thought to enhance the alliance (Norcross, 2010).

The therapeutic alliance is not the only factor common amongst a number of therapies (Hubble et al., 2010). While a number of factors impact on the way a clinician approaches therapy, it is naive to deny that there are some therapists that are better than others and have a higher success rate. This is thought to result from successful interaction of skills, personality, experience, and above all else, competency (Blow, Sprenkle, & Davis, 2007). Also thought to provide insight into therapist effects is a clinician's ability to establish an emotional and trusting connection with a client, as well as the ability to maintain it. This is thought to be one of the most robust predictors of outcome that has ever been studied (Hubble et al., 2010). Another important factor is the emphasis that the therapist applies to the relationship, indicating the importance of the therapist/client alliance, and how it is a joint effort that enhances therapy. From this range of factors, the best therapy is thought to be conducted by a therapist who is proficient in forming the alliance early on in therapy and who can adapt their style and approach of therapy to the client's individual needs and previous experiences (Sparks, Duncan, & Miller, 2008).

From these ideas of common factors consistently found across the research literature, other aspects been specified that can impact on the course of change. The relationship between the amount of treatment an individual receives and the amount of change that occurs is one such factor. While not completely indicative of the process of therapy, research has emphasised the connection between length of treatment and individual significant change (Howard et al., 1986). The aim of these studies was to find and specify the connection between length of treatment and individual significant change. It was found by eight sessions, 50% of clients had significant benefits and by twenty six sessions, 76% were seen as having recovered. When this study was replicated in later

years, it was found that one year of therapy was enough to produce a successful amount of change in clients (Kopta et al., 1994). The original study also indicated that 15% of clients showed measurable improvement prior to the first session of treatment suggesting the role of extra therapeutic factors

Based on the notion that level of change is associated with number of sessions, researchers began to focus on what the slope of change looks like across sessions. When trying to understand this type of slope, the literature does not seem to follow one view point. Whilst a number of researchers have found change to have a negative progressive slope (Howard et al., 1986; Stulz, Lutz, Leach, Lucock, & Barkham, 2007; Thompson, Thompson, & Gallagher-Thompson, 1995), others have found it to look approximately linear (Barkham, Rees, et al., 1996). Specifically there is evidence for a steady linear decline in symptoms (Thompson et al., 1995).

Initiating a desire to understand the way change looks when mapped across sessions encouraged researchers to identify what type of characteristics present at the beginning of therapy can be responsible for different slopes of change. The intensity of symptoms that an individual initially presents with in therapy is another theoretical concept that allows insight into what change looks like. Those who arrive in therapy with painful and highly distressing symptoms experience significant change sooner than their less distressed counterparts. This is evident in a steeper slope when looking at client's sessions displayed on a graph. (Stulz et al., 2007; Thompson et al., 1995). Also notable is that the higher the distress a patient enters therapy with, the more sessions of therapy they will require. The age of a client is another factor found to contribute to faster results, with the older the client the faster the improvement (Stulz et al., 2007). While there is some evidence for factors that influence the process of therapy, it has been

suggested that demographic factors do not have a significant effect on mood change (Thompson et al., 1995).

Other research has focused on breaking down types of symptoms and the nature of change that typically follows. One study focused on the assessment of the patterns of symptomatic recovery in 658 clients (Kopta et al., 1994). This was done by looking at acute symptoms (intense emotionality), chronic distress symptoms (durable emotional traits) and characterological symptoms (personality traits). Acute symptoms showed the best response to therapy overall, with chronic distress symptoms responding the quickest to treatment. Characterological symptoms showed the slowest response to therapy.

Research in this area is only beginning to show the individual factors that impact on the course of change but benefits are already becoming apparent. Having an understanding of the client's characteristics upon entry into therapy as well as adjusting treatment based on significant changes or any of the common factors that may develop throughout, has two advantages. It allows the therapist to heightening their awareness in identifying clients more at risk of treatment failure, and provides the ability to monitor "good enough change" (Barkham et al., 2006).

Present Study

One of the challenges facing CBT therapists interested in the frequent monitoring of client progress is the selection of the best indicator of improvement (Kinsella & Garland, 2008). Commonly used measures are questionnaires that assess the severity of the client's symptoms. Other indicators used in the mental health field are more global self-ratings of quality of life. Client satisfaction with treatment is also measured

frequently, especially in research studies and in audits of clinical services. In the CBT tradition, however, it has been more typical to try to identify specific improvements in actual behaviours.

Putting these ideas together it was decided, for the purpose of the present research, to propose that the hypothetical clients would be appropriately monitored by three measures. Firstly that one of these would be the conventional psychometric assessment of the client's symptoms of either the depression or the anxiety. Second, it seemed useful to consider measuring affect, such as decrease in negative mood for the depressed client and reduced worrying and anxiety for the phobic client. Finally, behavioural perspectives would expect that as improvement in the client's clinical disorder were occurring, so there would be a relatively positive change in behaviour. This was depicted as doing more things in the case of the depressed client and avoiding fewer things in the case of the client with agoraphobia/panic disorder.

In continuing the justification for these three measurement procedures, the three possible outcomes (symptoms, emotional "state", and behaviour) were built into the case study scenarios in a subtle but believable way. The hypothetical clients each stated three goals: relief of symptoms, generally feeling better, and doing more of the ordinary everyday things that typically occur for an individual in day to day happenings. Notably, it is common in CBT for the therapeutic goals to be identified by the client, and it is usually suggested that it is these goals that should be monitored throughout the course of therapy (Sperry, 2010).

In using these three types of measures, it is appropriate that they also possess a strong theoretical justification for their selection. Theoretically it is assumed that general feelings might improve considerably quicker than would long-standing symptoms (Stulz

et al., 2007). It also seems possible that positive expectations from starting therapy (Bohart & Tallman, 2010), or beginning to form a good therapeutic alliance, (Kazdin, 2005) might increase a client's level of hopeful optimism, and that this would be reflected in a general mood or worry measure before there was specific improvement in clinical symptoms. Then there is the suggestion that unless clients' emotional states are enhanced they would be less likely to make significant changes in their daily behaviour. This idea is supported by the use of, and evidence surrounding, mood stabilizers (Nierenberg et al., 2007). Additionally, there is an equally valid train of thought that suggests that unless you can get the client to engage in new behaviours their general emotional state will not improve which results in less relief of symptoms.

Thus the expected changes in the three outcome measures should reflect some of the therapist's thinking about the course of improvement. Is it a sudden improvement, as some have argued is the case? Would behavioural change precede or follow symptom relief? Do therapists think of symptoms and general affective state (mood/worry) as pretty much the same construct, so that improvements in these two measures would proceed in parallel? These are the type of questions the present study aims to explore.

Finally it seems that from the literature there are two commonly reported theories that may have an impact on the course of change that appear during therapy. One of these is related to the theory that there are stages of change based on motivation. The current study then aims to discover ideas surrounding this and understand if a client's commitment to change is reflected in the measures of their progress. The second concept centres around insight: many theories in psychotherapy suggest that when a client gains some understanding about the causes of their distress this can result in rapid progress. Thus, suggestions in the described scenario of the clients about some of these

events happening might be reflected in the therapists' expectation of the degree of change.

Therapists' optimism regarding the extent of improvement after 12 sessions of CBT should be reflected in the levels that the participants expect clients to achieve. For example, one could pose the question: Will this client be essentially symptom free by the end of the 12 sessions? Therefore, it should be possible to look not just at the pattern of change over time, or the interrelationships between the three measures of outcome, but also examine the absolute levels of improvements achieved by the end of the treatment.

In terms of the durability of whatever effect is achieved, the levels proposed at the 3 and 6 month follow up would indicate the therapists' expectations of relapse versus on-going improvement or no change. Any of these possibilities are plausible, although it was thought that the most likely outcome would be that clients to some degree slip back after 3 months of no treatment and that benefits would be regained after 6 months as the client became used to solving problems on their own and using the skills taught during therapy. However, there is little empirical evidence to guide these possibilities.

Since this was a pilot study and no previous work on this topic has been reported, it was decide to be more helpful to not formulate specific hypotheses but simply to describe the sorts of patterns suggested by the participants and particularly place emphasis on seeing if they used any particular theoretical concept that we could recognize or that they reported on the questionnaire. Although it was frequently stated that there were no right or wrong answers, it is possible to formulate a number of possible courses of change that would then be possible to compare the ones proposed with these prototypical patterns derived from sound CBT principles.

Method

Ethics

As this research involves human participants, Massey University Human Ethics Committee (MUHEC) was approached for approval to ensure this study followed appropriate ethical procedures. Participants were fully informed and provided with the conditions and the parameters of their consent. No deception was used and ethnicity did not bear any impact on the outcome of the study. Thus, MUHEC approved this avenue of research, and permission to conduct research was granted.

Participants

The initial contact used for obtaining participants differed between the two groups required; experienced clinicians, and students who had participated in at least one year of a clinical psychology programme at any New Zealand university.

Experienced clinicians were obtained through personal connections of the researcher and the Massey University faculty, as well as through permission sought from the Manawatu and Waikato branches of the New Zealand Psychological Society. An email was then forwarded to them asking them if they would be willing to participate.

Clinical students were not involved in the initial contact regarding this research. Firstly permission was requested from the Director or Head of Department (HOD) of the Clinical Programmes offered in the main New Zealand universities. This included the programmes offered at Massey University and its three campuses; Albany, Turitea and Wellington, University of Auckland, Victoria University, Canterbury University, Otago University and, Waikato University. Once permission was granted, students received

information through their respective clinical programmes and were not approached directly by the researchers.

A number of experienced clinicians received electronic tasks after responding positively to the invitation sent through email. Numbers are not specified as some invitations were circulated by administration of organisations they were a part of. Clinical students received their tasks after permission was granted from their Director/HOD. The aim was for them to be sent out towards the end of the academic year to ensure that those in first year would have had some familiarity with the clinical programme. A total of 220 tasks were sent to clinical students, with thirty five tasks sent to each campus and distributed internally through the programmes.

Procedure and Materials

Participants were given two ways to respond. The majority of clinicians were sent electronic tasks and the majority of students were sent paper tasks, this was rationalised as the easiest way to approach each group. Whereas the paper task asked participants to directly plot the graphs themselves, the electronic task asked participants to print out the graph and plot the course of change with the scores expected at each session, and then input the scores onto an online form.

Individuals were provided with an information sheet, describing the purpose of the research as well as outlining the conditions of consent. Participants were asked not to supply their name or other identifying details aside from those detailed in the task. This insured anonymity amongst participants. It was considered that a participant consented when they returned the task completed, indicating their understanding of the information provided and the approval of the use of the material they had submitted. All

participants who received a paper task were provided with a self-addressed postage paid envelope for the return of their tasks.

The paper and electronic task's provided to participants, presented in Appendix A and Appendix B, began by describing two hypothetical case scenarios, one being Mr T, a depressed client, and one being Ms S, a client with anxiety symptoms. Participants were asked to read the case studies that included a description of the client, the client's symptoms, and goals for therapy and a description of the CBT-protocol to be used in treating the client. Participants were then asked to predict change using three measures for each client; one that measured mood, one for symptoms and another for behaviour. Initial scores were provided for all three inventories for both clients. For Mr T, the participants were asked to plot their expected score for each session, as well as the third and six month follow up, on the supplied graph. The graph included three Y axis as each measure differed in highest to lowest scores, allowing for the three measures to be plotted alongside each other. For the depressed client, the three measures indicated were the Negative Affect schedule of the PANAS, the Beck Depression Inventory and a self-report of the number of activities the individual participates in between sessions. For the anxious client, the measures used to measure progress were the Beck Anxiety Inventory, the Penn State Worry Questionnaire, and self-recorded diary depicting the events of her day.

'Mr T'.

The case study depicting Mr T indicated a diagnosis of clinical depression from his GP, whose goal was to obtain a healthier, happier lifestyle and to reduce the number of negative moods he incurs each day. Symptoms that were indicated were poor sleeping

habits, loss of appetite, easily being tired and not participating in activities he previously found enjoyable. The protocol set in this case is outlined as follows.

CBT for depression.

This theoretical basis of therapy has been used to map out the process and pathology for a number of psychological problems, including depression (Friedman & Thase, 2007). A general CBT oriented set of treatment procedures were outlined to convey to the participants the type of therapy that was likely to be followed. In doing so, the process of therapy illustrated in this scenario entails a focus on current problems and building goals that the client is realistically able to work towards

Using health insurance in the case study scenario as a way to limit number of sessions, the clinicians and students are given an outline of the type of therapy used in this case study in an attempt to reduce the variability in therapy styles. As there is an expectation that the majority of participants are fluent in CBT, the process given is indicated as standard evidence-based CBT protocol for depression. This includes the use of psycho-education, cognitive restructuring, homework assignments, the teaching of coping skills and encouragement and the instillation of hope in the client to participate in activities.

Participants of this study were also given cues that may impact on the nature of the process, with one being rapport being easily established. Other hints, which can be judged as being relative to the SOC model, indicates that Mr T mentions in session four that he is ready to make changes in his life. Three forms of outcome measurement were used to show the participants implicit ideas on change in the therapeutic process for this case, the Negative Affect Schedule, Beck Depression Inventory and a record of positive activities. It is important for this study to use appropriate and familiar psychometric

methods (Lambert & Vermeersch, 2008) even if the cases are fictional and these measures were viewed as being commonly used in New Zealand psychological practice, and appropriate alongside a successful treatment protocol of CBT.

Negative affect schedule.

The negative affect (PANAS-NA) schedule is one dimension of the Positive and Negative Affect Schedule (PANAS) (Watson, Clark, & Tellegen, 1988). It entails a 10 item list where individuals rate on a scale from one to five, with one being very slightly/not at all and five being extremely, on the extent they feel the provided emotions in a specified time period (this moment, past few days, past few weeks, past year etc.). These 10 items represented five mood domains; distress (distressed, upset), anger (hostile, irritable), fear (scared, afraid), guilt (ashamed, guilty), and jitters (nervous, jittery) (Watson et al., 1988).

It was developed due to the literature based on affect at the time of its construction consistently suggesting two dominant dimensions of this construct. This was done by using a questionnaire containing 57 to 65 mood terms deemed reasonably pure markers of positive affect or negative affect, and extracting the ones that truly depicted these structures (Nezu, Ronan, Meadows, & McClure, 2000). From this, the authors used a series of analysis to find the variables with a high loading on one of the dimensions and zero on the other. Reliability analyses suggested that 10 items per dimension was sufficient (Nezu et al., 2000).

This measure has been found to have excellent convergent and discriminant validity (Crawford & Henry, 2004; Watson et al., 1988). It has also been deemed as possessing adequate reliability (Crawford & Henry, 2004). Cronbach's alpha for the negative affect

schedule was α=0.85 (95% CI = 84 – 87). In terms of use for reflecting on short term periods of distress, the PANAS is sensitive in identifying mood fluctuations, whereas long term reflections show trait stability.

In terms of this research project, the participants are given this affect schedule as a means of measuring the progress of the client's mood in the past week of the individual's life. There initial assessment yields a score of 26, which is high compared to the average adult score of 14 (Nezu et al., 2000).

Beck Depression Inventory.

The Beck Depression Inventory (BDI) was the creation of Beck, Ward, Mendelsen, Mock & Erbaugh (1961). This inventory has been revised, clarified, and modified accordingly since its initial conception. The current version, the BDI-II, although more likely than the previous versions to emphasise more symptoms, shows good correlations with its predecessors (Groth-Marnat, 2003). Over the course of its lifetime, the BDI has been a staple inventory in the assessment of depression in both non clinical and clinical subjects (Groth-Marnat, 2003). Its appeal is largely in its ability to detect depression without the cost that other, sometimes longer, methods of measurement have. Also appealing, is the amount of research that has been compiled on this inventory.

This 21 item inventory was developed through clinical consensus from the observation and summarization of the typical attitudes/symptoms of depressed patients. Individuals are asked to choose one of four statements that best represents their current feelings, provided in order from the least depressive symptom to the most (Groth-Marnat, 2003).

As expected amongst the literature of the BDI-II, there has been a focus on its psychometric properties with results showing that it has acceptable reliability and

validity (Dozois, Dobson, & Ahnberg, 1998). Studies have shown that internal consistency typically ranges from .89 to .94 (Beck, Steer, & Brown, 1996) regardless of population used. Test-retest reliability showed was .93 following a one week interval (Beck et al., 1996). Also this inventory is able to discriminate clinical and non-clinical populations as well as having adequate concurrent validity (Groth-Marnat, 2003).

The BDI-II's utility in this hypothetical case is to measure the clinical symptoms of depression and how they evolve over therapy. Assessed with the BDI-II on initial consult, the individual in this case received a score of 35, indicating severe depression.

Self-monitoring of positive activities.

Self-monitoring, which can be allocated as homework, is thought of as an integral part of CBT. In the treatment of depression, this is no exception. One of the main reasons for this emphasis is due to CBT being goal oriented (Kuyken, Watkins, & Beck, 2007). Self-monitoring such as recording number of enjoyable activities one participates in, as provided in this case study, allows for goals to be set in terms of the individual's life outside of therapy, as well as a way of recording the improvement of these goals (Kazantzis & Dattilio, 2010). In this case it was looking at the number of activities Mr T enjoys throughout the week, and whether or not this number is increasing as therapy progresses.

When reviewing the literature, research is not typically dedicated to this particular method of outcome measurement in the treatment of depression. Regardless, the extent of information that is available highlight's that to ensure self-monitoring's success in therapy, compliance is paramount (Burns & Spangler, 2000). This notion has been

accounted for in this case study scenario by indicating to participants that Mr T responds positively to treatment.

Not only does this provide the clinician with the ability to see improvement in the client's wellbeing, it also shows whether or not the client is able to use what they have been learning in therapy in the experiences and situations they experience in their day to day lives.

'Ms S'.

Ms S was described as a 31 year old woman who is referred for psychotherapy as a result of chronic anxiety. Notes provided from her GP suggest General Anxiety Disorder with panic symptoms including heart palpitations, dizziness, thoughts of passing out, sweaty palms, and hyperventilation. In particular, Ms S appeared to be having difficulties in social events, which she in turn was finding ways to avoid. Thus, her goal in therapy was to reduce these symptoms and to be able to participate in social events with her family. The clinicians and clinical students were told a standard protocol of CBT was followed, described below.

CBT for anxiety.

Anxiety disorders are the most common psychological problems individuals seek treatment for (Schneier, Mellman, & Spiegel, 2007). Therefore, a substantial amount of research has been compiled in this area, and in particular, on treatment strategies. CBT is one of those therapies and has been found to be more effective than pharmacological treatments in reducing the symptoms characteristic of panic and General Anxiety Disorder (Schneier et al., 2007). The described process of treatment for Ms S then is

based on general CBT oriented treatment procedures, to provide an outline of the course of therapy that she was likely to follow.

The course of therapy used in the case for this study involves 12 sessions, controlled by the indication of health insurance restrictions. The participants were told that a standard empirically based CBT protocol would be used in treating Ms S which included psycho-education, specifically on the nature of fear and anxiety, exploring the relationship between fear and avoidance behaviour, teaching of deep muscle relaxation and calming breaths, setting a hierarchy of activities and proceeding through it, as well as exploring catastrophic thinking. In keeping with the present study's aim in understanding the impact of motivation and insight cues on the course of change, participants of this study were provided with subtle descriptions of situations pertaining to these two concepts. The scenario indicated that Ms S reported an increase in self-efficacy in session four as well as displaying signs suggesting a great deal of insight in session six.

Three forms of outcome measurement were used to show the participants implicit ideas on change in the therapeutic process for this case, the Penn State Worry Questionnaire, the Beck Anxiety Inventory, and self-report of the percentage of daily activities completed per week. Again, these inventories were thought to be appropriate and familiar to clinicians, ensuring that the relevance of this study was upheld.

The Penn State Worry Questionnaire.

The Penn State Worry Questionnaire (PSWQ) (Meyer, Miller, Metzger, & Borkovec, 1990), used to measure the construct of worry, was created due to General Anxiety Disorder (GAD) ceasing to be only considered as a residual diagnostic category in the DSM-III-R (American Psychiatric Association, 1987). This highlighted the need for a

psychometric tool that psychologists could use that was representative of worry associated with GAD (Startup & Erickson, 2006).

The authors drew 161 items from clinical and research findings, daily diaries from GAD patients, and items from a previous anxiety inventory based on cognitive somatic anxiety (Startup & Erickson, 2006). Theoretical views on worry also impacted on the development of this measurement. Using a factor analysis, the number of items were reduced to 16 (Startup & Erickson, 2006). Using a scale from one to five, with one being "not at all typical of me" and five being very "typical of me", individuals must mark how they rate themselves in regard to these 16 items. All items relate to different situations and triggers that could lead to worry, and how an individual would react to that. Five of these items are negatively loaded and thus need to be reverse scored (Startup & Erickson, 2006).

Its familiarity is largely due to the PSWQ being the "most widely used measure of the frequency, intensity, and uncontrollability of worry" (Startup & Erickson, 2006, p 101). It has exhibited high internal consistency in clinical and non-clinical groups, and is also often used in the case of applied research (Startup & Erickson, 2006). Cronbach's alpha has been shown to between 0.88 and 0.95, with a good test-retest reliability at r= 0.74 – 0.92. It has also demonstrated that it is sensitive to change across both six weeks and 12 weeks (Startup & Erickson, 2006).

In the case presented in this study, the PSWQ will be used to measure the client's worrying during the week. At initial consult, the hypothetical clients score stood at 73, considerably high compared to the score of 32 which indicates mild/rare worrying.

Beck Anxiety Inventory.

The Beck Anxiety Inventory (BAI) is a commonly used self-report measure made up of 21 items. It measures symptom severity which is conveyed by the frequency over the week previous to completing the inventory (Campbell-Sills & Brown, 2010). It was developed to address the need for a measure that was able to discriminate between depression and anxiety (Turk & Wolanin, 2006), and has been shown to have satisfactory reliability and validity (Beck, Epstein, Brown, & Steer, 1988). Individuals reflect on their past week and mark on a four point scale, one being not at all, four being severely, the extent to which a certain symptom has been affecting them (Campbell-Sills & Brown, 2010).

The benefit of this inventory over others is that it doesn't overlap with depression measures as do other anxiety measure, due to the focus of the inventory being on fears and hyper-arousal symptoms (Campbell-Sills & Brown, 2010). Acknowledging this, the BAI has been noted as best suited to assessing panic symptoms, although is a commonly used measure in the assessment of anxiety (Turk & Wolanin, 2006).

For the purpose of this study, the BAI reflects on the past week for the client, and is mainly aimed at keeping track of their anxious symptoms. With a score of 0 – 21 being indicative of a normal level of anxiety, the client in this case has entered therapy with a score of 48 out of a possible 63, indicating a high level of anxiety (Campbell-Sills & Brown, 2010).

Percentage of daily activities completed.

Likewise with Mr T, behavioural self-monitoring was used to measure behavioural change in Ms S. By comparison however, Ms S is monitoring the percent of activities that are participated in based on appropriate daily expectations.

As previously mentioned in the behavioural monitoring of Mr T, an emphasis on awareness and self-monitoring is important in most theoretical orientations, in particular the cognitive-behavioural perspective due to its goal oriented nature (Wells, 2006). When used alongside clients with anxiety, it can be used to show changes based on the clients use of avoidance in daily activities. Especially in terms of clients whose anxiety is typically provoked in social situations like Ms S, if a client is participating in a higher percentage of activities, it is assumed that is less likely that they are participating in avoidance (Wells, 2006). Following the same lines as depression research, there is little evidence for self-monitoring as an outcome measure for anxious clients. It is however it is an often utilised tool in CBT for monitoring client progress (Hopko, Armento, Cantu, Chambers, & Lejuez, 2003).

In the anxious case, the client is asked to maintain a daily events diary, compiling a list within the first session with the therapist of what she expects she should be doing each day, and then recording the percentage of activities that were completed as a means of keeping track of the avoidant behaviours she is seen to be indulging in. The hypothetical client in this case indicated in the first consult that there were 11 activities of which she probably should be attending to in the past week, which she had not completed, resulting in number of activities at 0.

Additional questions.

To gain an understanding of the level of expertise a participant has in the area of psychotherapy, a number of questions were also supplied. Participants are asked how many years clinical experience they have been involved with, their familiarity with the outcome measures described in the case studies and whether or not they have used CBT in the treatment of anxiety disorders and depression. As there is a possibility that some participants may not largely identify with CBT, there is also a question asking which modality of treatment they would prefer if CBT is not their dominant theoretical orientation.

Analysis

Understanding of any differences between clinical students and experienced clinicians is gained from simple descriptive analysis rather than the use of inferential statistics. One form of analysis is based on differences between clinician and student predictions of change for both case studies, visual comparisons will be made based on the shape and slope of the graphs. Comparisons will also be made between clinician and students based on the interaction of the mood, symptom, and behavioural outcome measures to gain an understanding of what form of change is expected to occur first and whether or not this impacts on improvement in other areas of impairment. Expected improvement by session 12 will also be assessed, with comparisons made across all measures against both clinicians and students, as too will be the assessment of expected change at follow up, with the analysis of scores at session 12, three month follow up, and six month follow up. The cues provided regarding motivation and insight will also be examined in each case to understand if these concepts had any impact on the expected change, and if any differences between participants occurred. Lastly, participant comments will be

assessed to provide further insight on what concepts influence a clinician or students predicted path of change and potentially at what stage of therapy this influence occurs.

Results

Participant Characteristics

A total of ten clinicians and 16 students responded to our task. The electronic task was responded to by seven clinicians and one student. The paper task was completed by three clinicians and 15 students. Results provided by two clinicians were omitted from analysis as graphs were left incomplete.

The factors considered important for this study were level of experience, familiarity with the measures, and preferred modality of treatment. The eight clinicians who participated ranged from one to 30 years' experience in clinical psychology, with the mean being 10.5 years. Out of 16 student participants, 14 provided responses to the additional questions. Five students had completed their first year of clinical training, one had completed their second, seven had completed their third, and one student had completed four years of training.

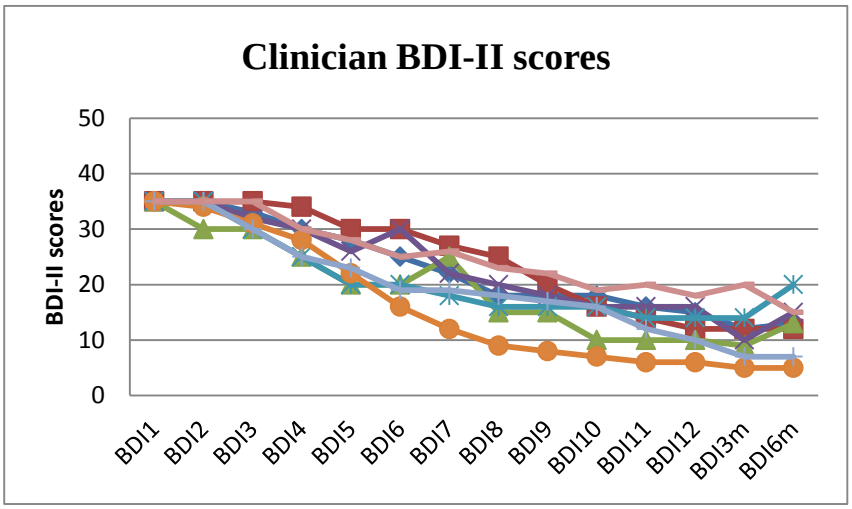
When assessing the extent of knowledge of the six measures, only one clinician indicated that they were familiar with all of them. The remaining eight indicated that they had knowledge of some, but not all measures. Of the 14 responses from students, 12 indicated that they were familiar with only some of the measures and two indicated that they were aware of all six. A few of the participants indicated that PSWQ was the least familiar measure.

All participating clinicians had experience with CBT in the treatment of both anxiety and depression, along with five students. One student had experience with CBT for depression with the remaining students not having had any experience with either.

Modality questions were typically left unanswered; however, one student indicated that they did not typically participate in treatment aspects of clinical psychology, one clinician indicated solution-focused brief therapy and more behaviourally oriented CBT as influential on their work, and another clinician acknowledged a preference in using self-help materials alongside a typical CBT-protocol.

Expectations of change across successful CBT

The overall trend shown across all participants was a gradually declining linear pattern. Within the clinician group, course of change predictions are similar, with the student group showing a considerable amount of variability in their expectations. An example of this is shown in Figure 1 which shows comparisons between clinician and student overall score predictions on the BDI-II. This variability trend was visible in the group comparisons of both the symptom and affect outcome measurements for both the depressed and anxious case sccenarios.



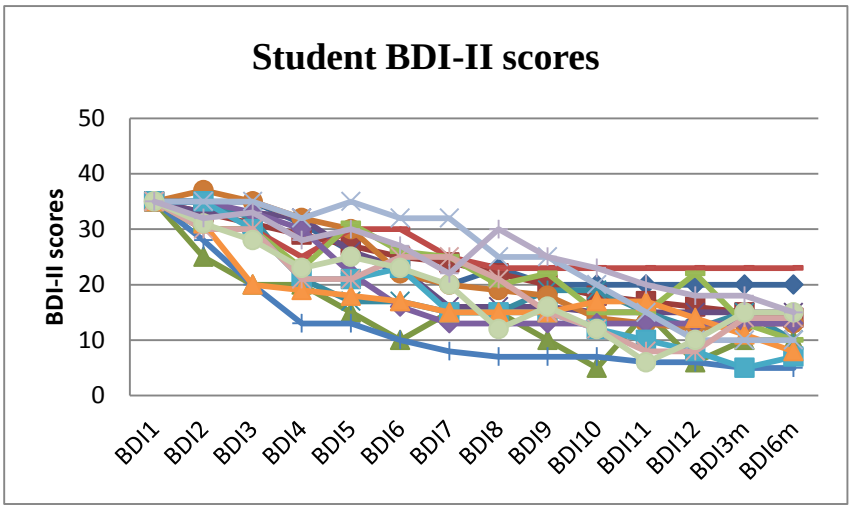


Figure 1. Differences between clinicians and students in their overall BDI-II predictions of BDI-II scores

Expected change in a depressed client.

When looking at the graphs of expected change predicted by clinicians in a depressed individual, a common pattern is visible. While accounting for lines that follow scores of a higher or lower value, the majority of clinician's graphs were similar to Figure 2. This shows a minimal change in the first three sessions followed by a slow and steady decline in mood and symptom scores, which levelled off late in the second half of therapy. The expected number of activities increased at a faster rate and peaked at the end of therapy. A clinician's expected change that differed from the majority can be

seen in Figure 3, although being relatively similar, showing a flattening off effect on all measures apparent from halfway through therapy suggesting that the majority of change would occur early in therapy.

Unlike the clinicians, there was considerable variability in the trends predicted on the graph designed for a depressed client that was completed by students. Although following a linear curve, students showed more fluctuations in the scores than the clinicians. As can be seen by Figure 4, some students predicted a decelerating curve, whilst others predicted change to be constantly slow and linear that levels out towards the end of therapy, as can be seen in Figure 5. Others showed a pattern of fluctuations which resulted in reduced mood and symptoms scores by the end of therapy as can be seen in Figure 6. A small number predicted scores in a similar manner to the clinicians (Figure 7).

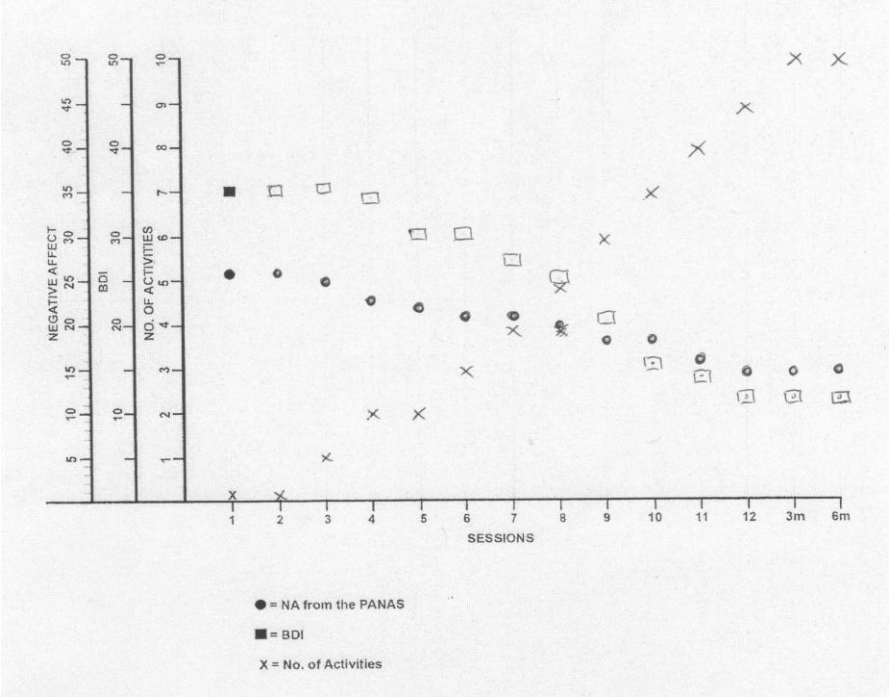


Figure 2. Expected change in therapy for a depressed client - Clinician 4

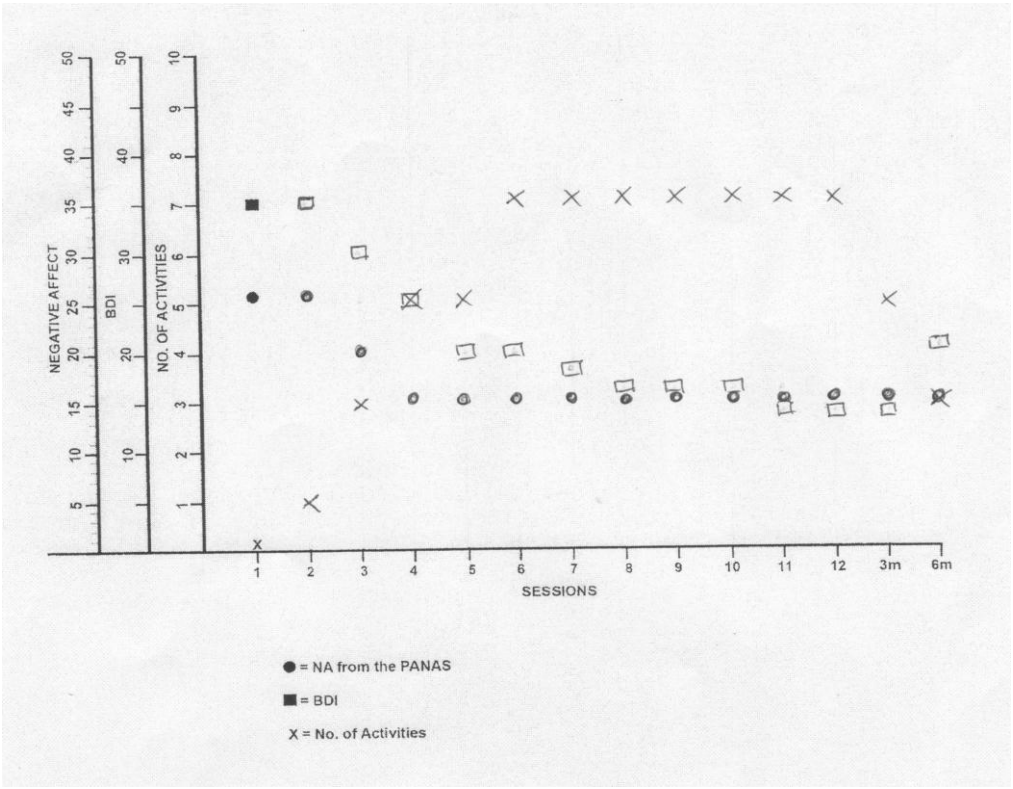


Figure 3. Expected change in therapy for a depressed client - Clinician 7

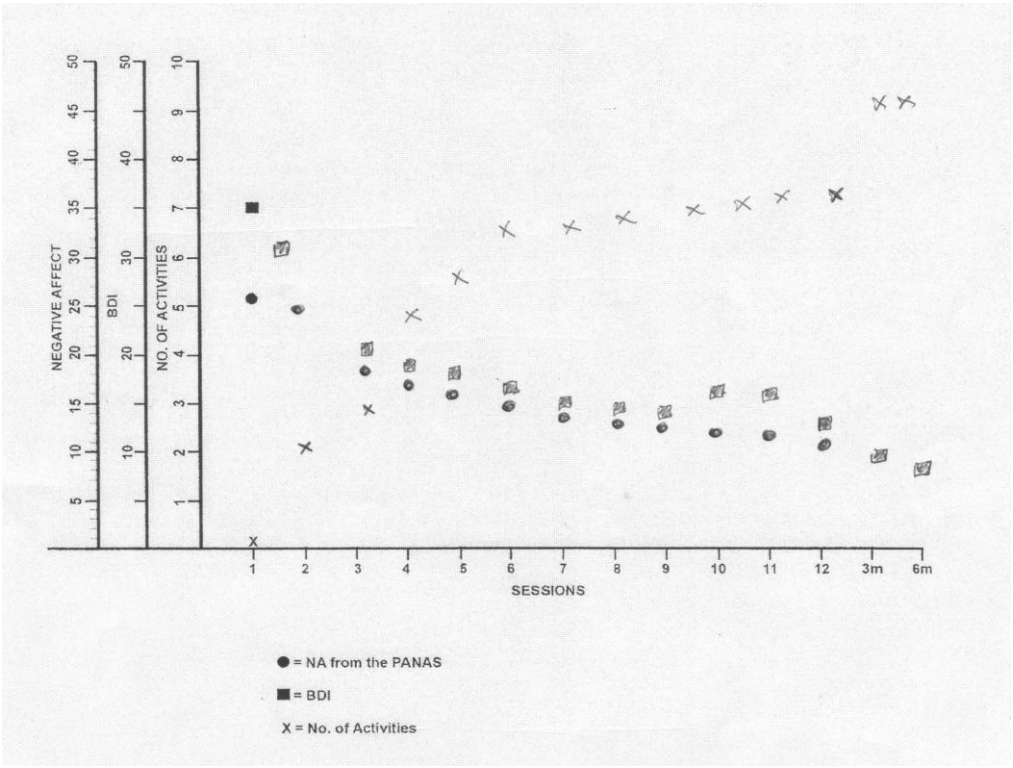


Figure 4. Expected change in therapy for a depressed client - Student 12

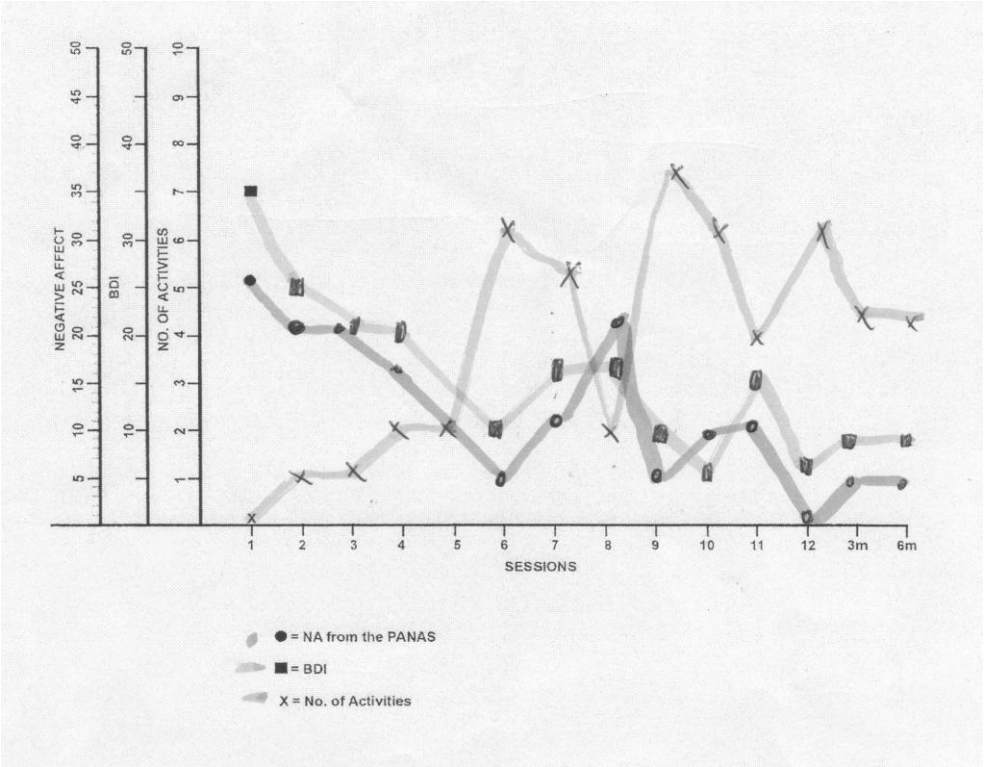


Figure 5. Expected change in therapy for a depressed client - Student 3

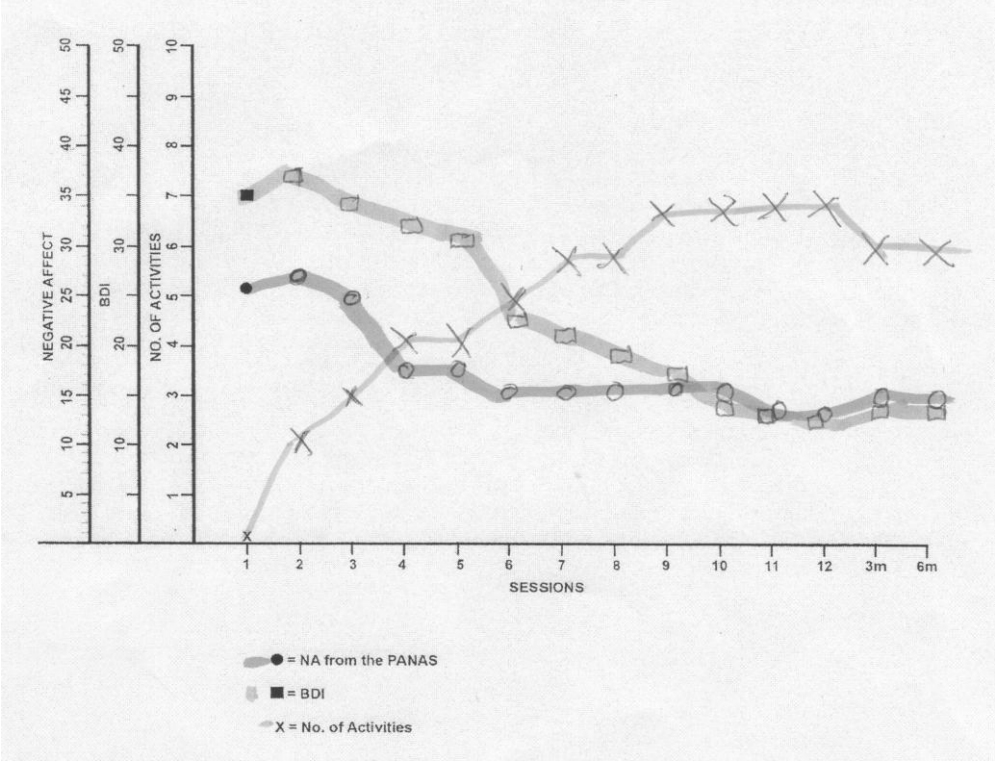


Figure 6. Expected change in therapy for a depressed client - Student 6

Expected change in an anxious client.

Similar to the depressed client, clinicians showed minimal variability in their predicted change for an anxious client. The scores predicted on the PSWQ tended to show a consistent gradually declining curve, levelling out at session 12, session three follow up and six month follow up. Changes on the BAI were typically slow and gradually declining, with change reducing in speed towards the end of therapy and at three and six month follow-up. Clinicians typically predicted a linear progression in the percentage of activities Ms S participated in across therapy. An example of this type of trend can be seen in Figure 8. One clinician deviated from this trend as can be seen in Figure 8, showing an early rapid response, although still in a decelerating manner.

Students again showed considerable variability in their scores on the graphs submitted for the anxious client, however three trends seemed to appear upon closer inspection. Along with a number of trends depicting early rapid response and fluctuations such as Figure 9, there were also examples of a linear progression similar to clinicians (Figure 10) and a trend that showed slow gradual change on both the PSWQ and BAI, with slow improvement on percentage of activities (Figure 11).

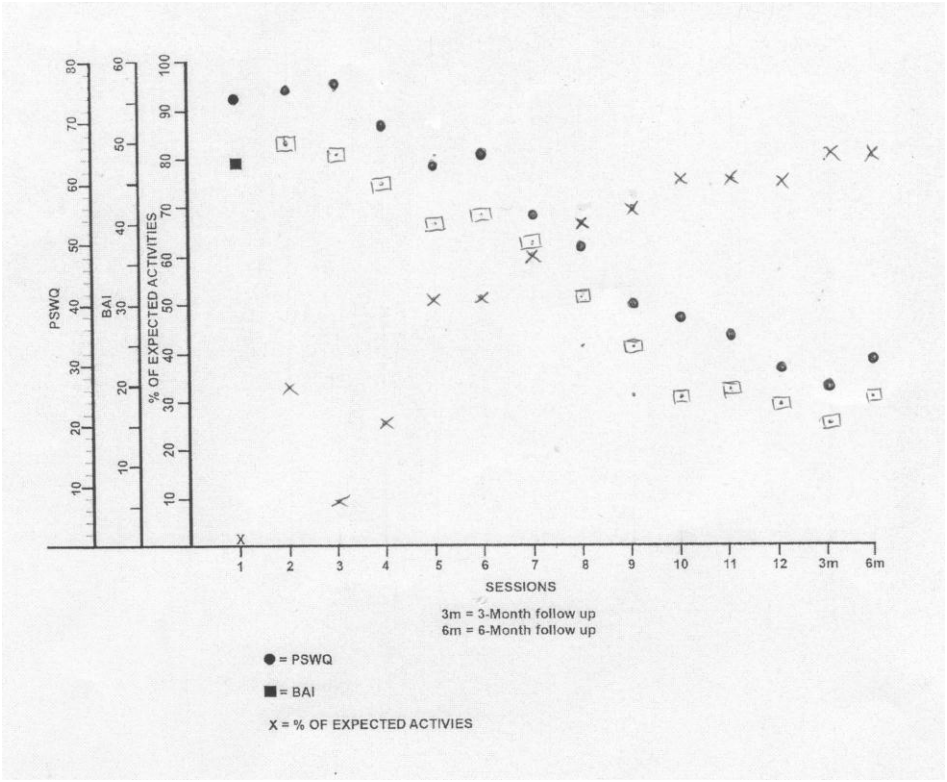


Figure 7. Expected change in therapy for an anxious client - Clinician 3

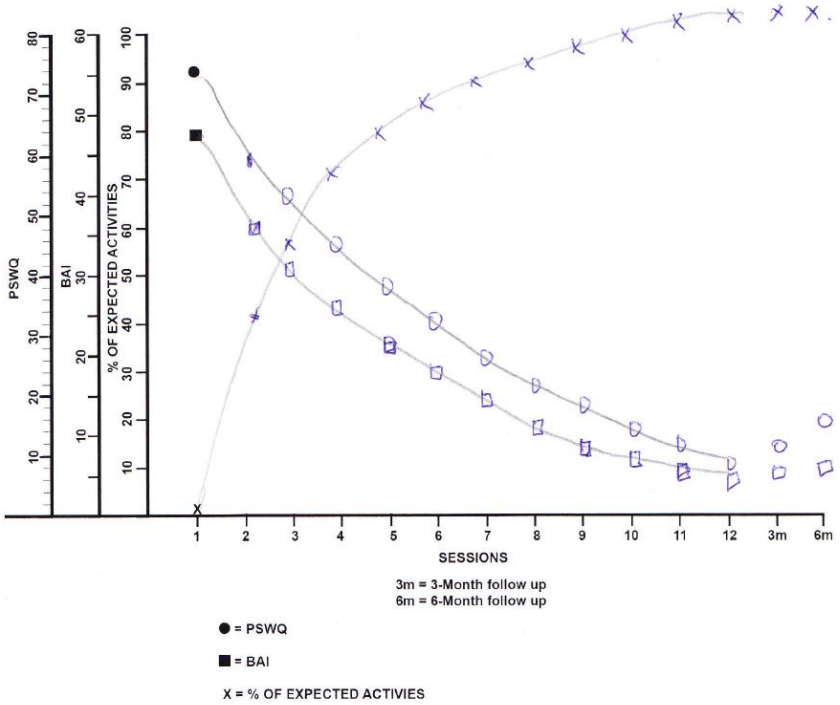


Figure 8. Expected change in the treatment of an anxious client - Clinician 1

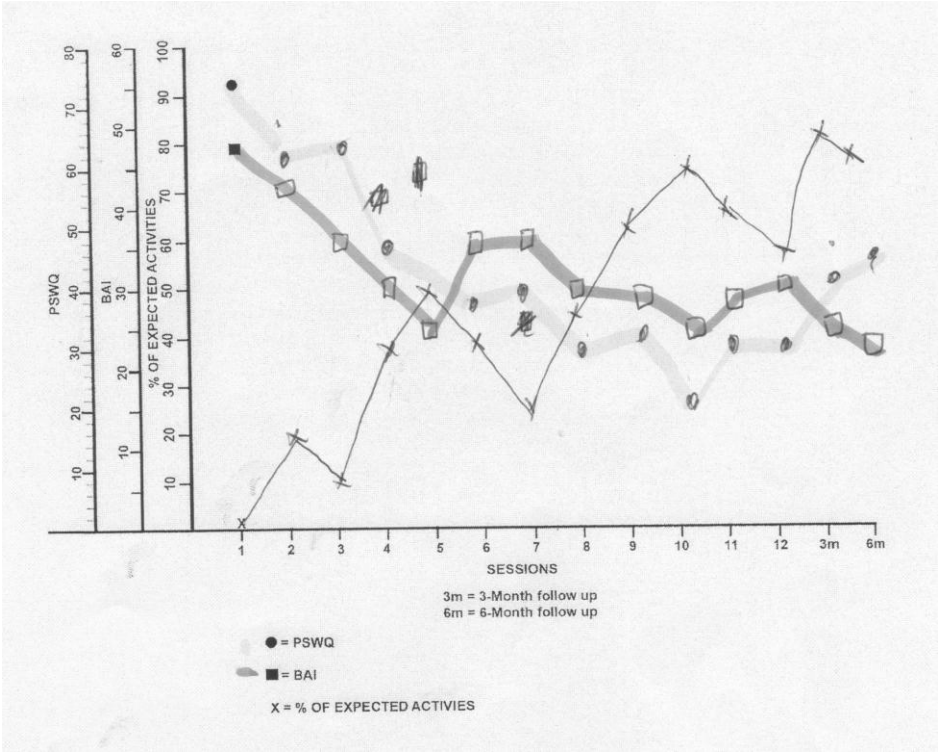


Figure 9. Expected change in the treatment of an anxious client- Student 9

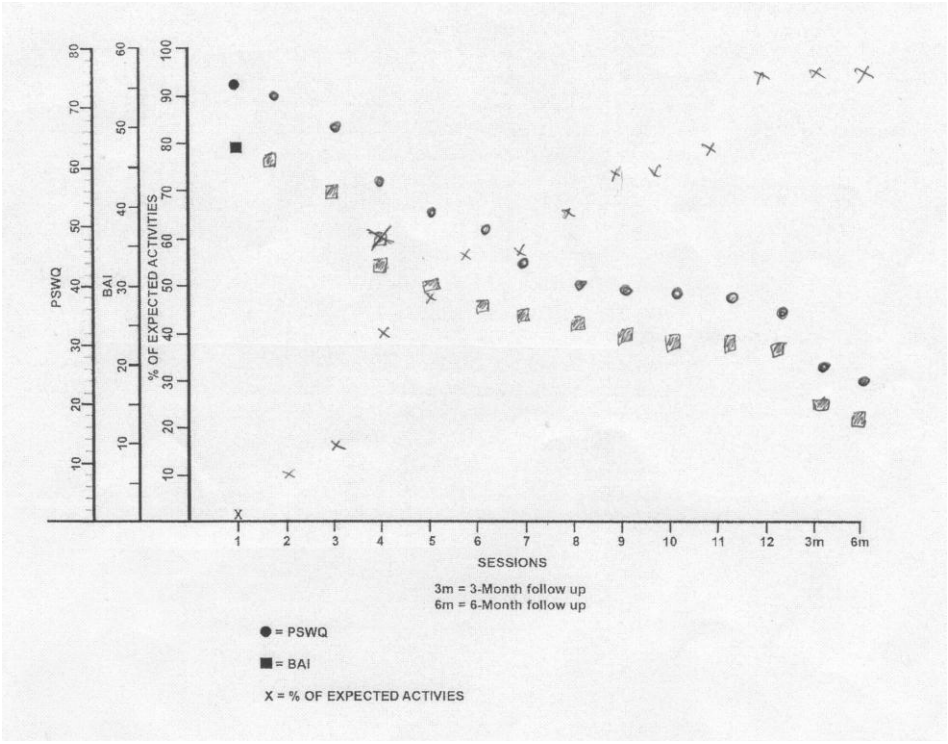


Figure 10. Expected change in the treatment of an anxious client - Student 12

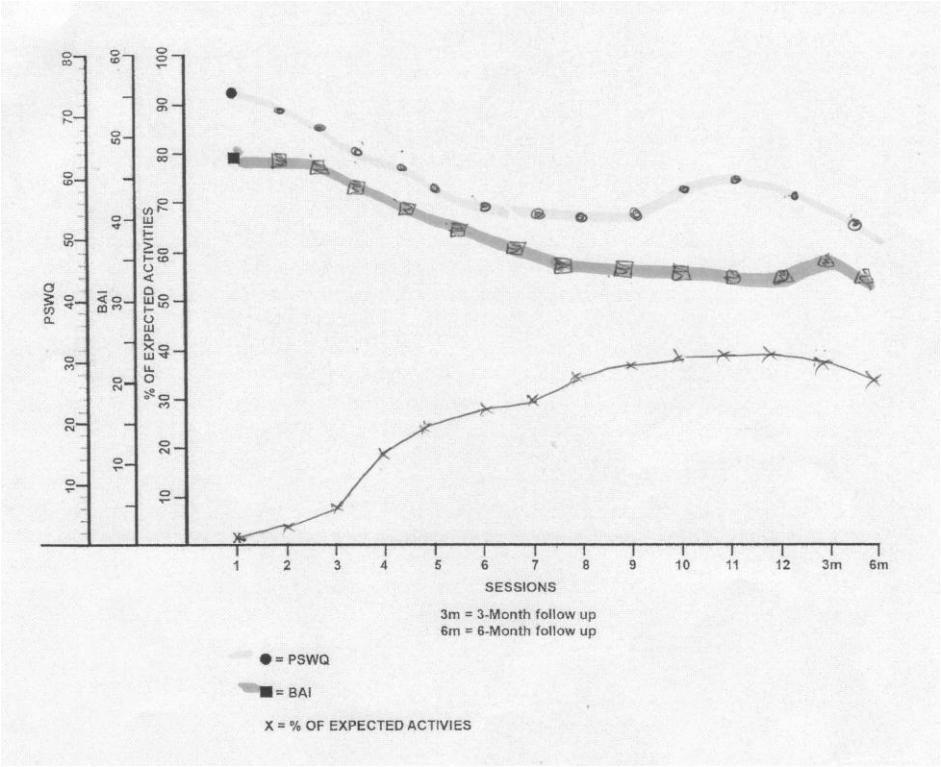


Figure 11. Expected change in the treatment of an anxious client - Student 8

Change patterns between mood, symptom, and behavioural measures.

Following the establishment of separate trends on each measure, analysis then turned to assessing the interaction of mood, symptom, and behavioural measures. As can be seen in the trends found in the clinician predictions of change in Mr T (Figure 2 and 3), mood and symptom measures were more or less parallel, with decreases in scores being relative. The only notable consideration was that symptom change proceeded at a faster rate either earlier in therapy or towards the end, however, when looking at the client's progression from high scores to scores relative to the general population, both symptom and mood typically moved into normative means at the same time. Clinicians also depicted the behavioural change heightened after the majority of negative mood and

symptom reductions. Two clinicians also provided results that showed symptom change preceded negative mood reduction. Comparatively, Figure 13 also shows one clinicians prediction that indicated reduction in symptoms prior to negative mood reduction. Behavioural participation is initially high and continues at a high rate across sessions. Students showed similar findings, with mood and affect being parallel constructs and symptom reduction reducing at a more rapid rate. Trends that depicted fluctuation patterns seemed to also show a relatively parallel association between mood and symptoms, such as in Figure 5. Again, there was variability among the students, and they also exhibited patterns where behaviour preceded symptom and negative mood improvement. A number of students also provided trends that showed no visible relationship between the three measures.

In the assessment of clinician expectations for the anxious client, mood and symptom measures were again graphed as parallel constructs. Again, Ms S was shown to progress into scores reflective of the general population at the same time on both the PSWQ and BAI and at times symptoms reduced at a faster rate. Activity participation also peaked after the majority of negative mood and symptom scores reduced. Students depicted trends very similar to the clinicians, with less variability in the type or relationships between measures.

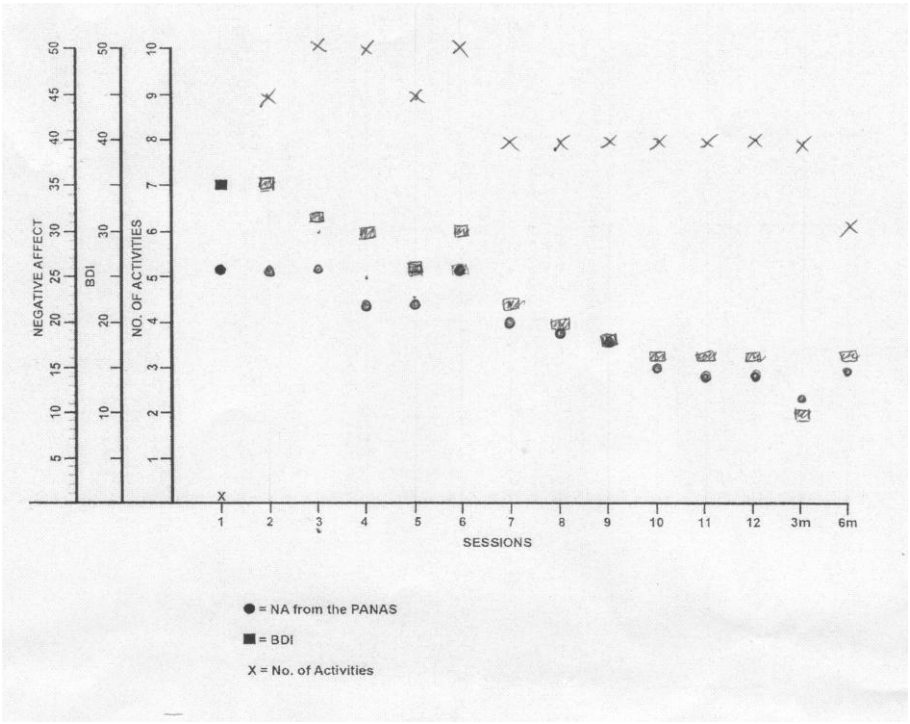


Figure 12. Mr T's expected change - Clinician 6.

Expected change at session 12

Differences were assessed between clinician and student's expectations in terms of change at the end of therapy by comparing clinician and student means for each measure. Figure 14 shows the expected mean change for each measure at session 12 as predicted by both clinicians and students.

As can be seen on the two graphs, there are no significant differences between clinicians and students when assessing differences based on the mood and symptom measures in both depressed and anxious clients; however clinicians are more optimistic when predicting behavioural improvements. Clinicians expect a depressed client to have higher negative mood symptoms than students predict, while expecting symptomatic expression to be less. By inspecting the means on the PSWQ and BAI, clinicians and student show similar predictions of change for the anxious client by the twelfth session.

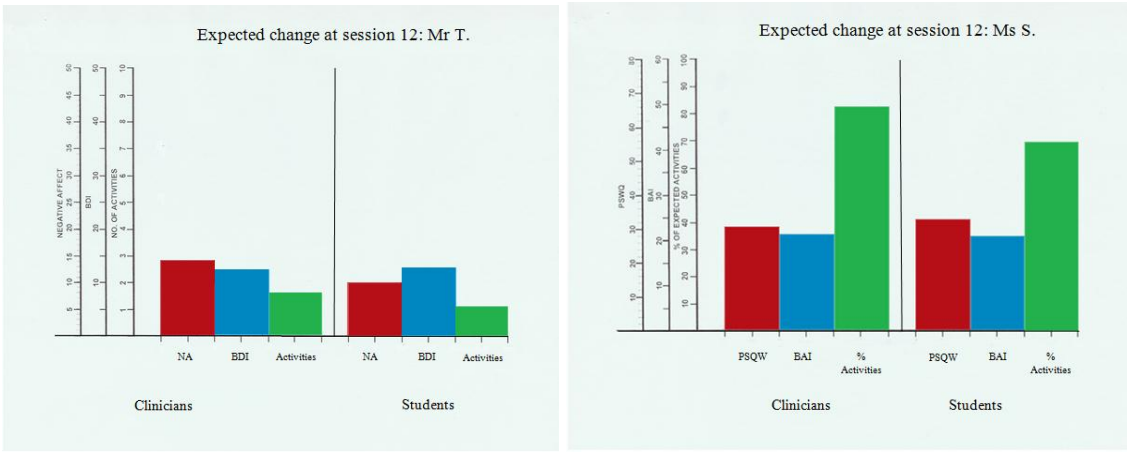


Figure 13. Expected mean change at session 12: Mr T and Ms S.

When breaking down the scores to look at individual responses, some trends become slightly clearer. Students show a lot more variability with their expected scores across all measures, with clinicians being more similar in scoring.

Regardless of the variability, students typically indicated that the client's negative affect had decreased from the original score of 26. The scores ranged from between zero to 20, with a mean of 10.5, a score considerably lower than the normed general population score of 18, and far lower than the normed inpatient score of 26.6. Out of 16, only two of these scores were over 18. Clinician's also found Mr T to have reduced negative mood, with scores ranging between 10 and 19. The mean for these participants was 14, falling within the general population scores. Students expect a lower score on the PANAS than clinicians by session 12, with seven expecting Mr T to score below 10, and only one clinician expected the same.

Expected scores on the BDI-II for students fell between six and 18, with an average score of 13.3125. Nine students predicted Mr T to be within 0 and 13, indicative of none or minimal depression. Four students expected Mr T to show mild depressive symptoms (14 – 19) with three expected his scores to be characteristic of moderate depressive

symptoms (20 – 28). In comparison, clinicians scores ranged from six to 18 (M = 12.625), with four expecting Mr T to still show mild symptoms, and four expecting minimal symptoms. Unlike the students, no clinician predicted Mr T's symptoms to fall within the scores representative of moderate depressive symptoms.

The number of activities students expected Mr T to participate in by the twelfth session ranged from two to nine, with a mean of 5.97. Showing less variability, clinicians expected him to be invested in seven to nine activities by this week.

The predicted scores students indicated on the PSWQ for Ms S at session 12 ranged from 6 to 60, showing considerable variability, with a mean of 33.56. With a cut-off score of 45 to signal pathological worry or GAD in a treatment seeking population, six students predicted Ms S to still be within this category at session 12, however no students predicted her to be above 63, which is required to differentiate GAD from other anxious disorders. Clinician scores, comparatively, fell between 10 and 50, with the mean being 31.375. Only two expected Ms S to be above the GAD cut off score, with the remainder expecting her to be below.

Student expected scores on the BAI ranged from 10 to 32, with half expecting Ms S to still show moderate symptoms of anxiety, and the other half predicting her to have low anxiety symptoms. Again half of the clinicians expected Ms S to have moderate symptoms, with the other half expecting moderate. Their scores ranged from five to 31.

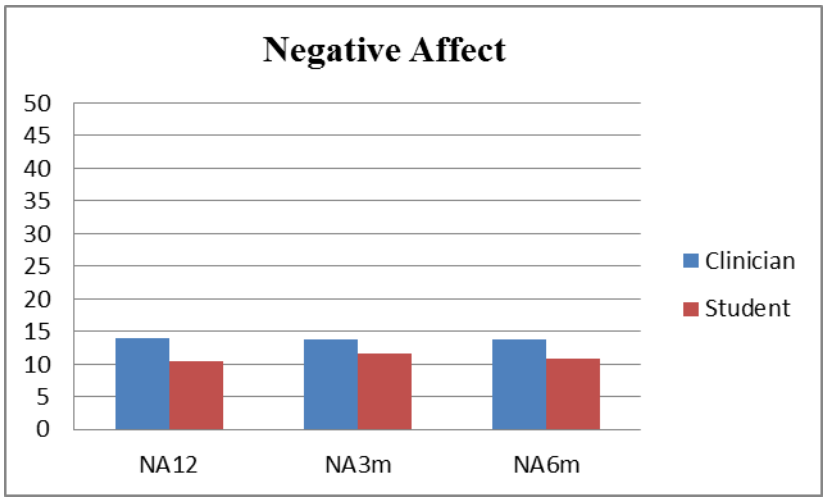


Figure 14. PANAS-NA score at session 12, three month follow up, and six month follow up.

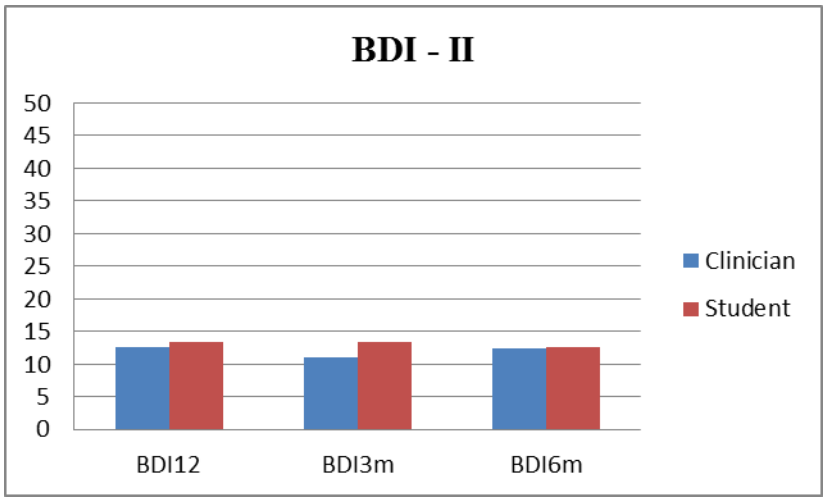


Figure 15. BDI-II score at session 12, three month follow up and six month follow up.

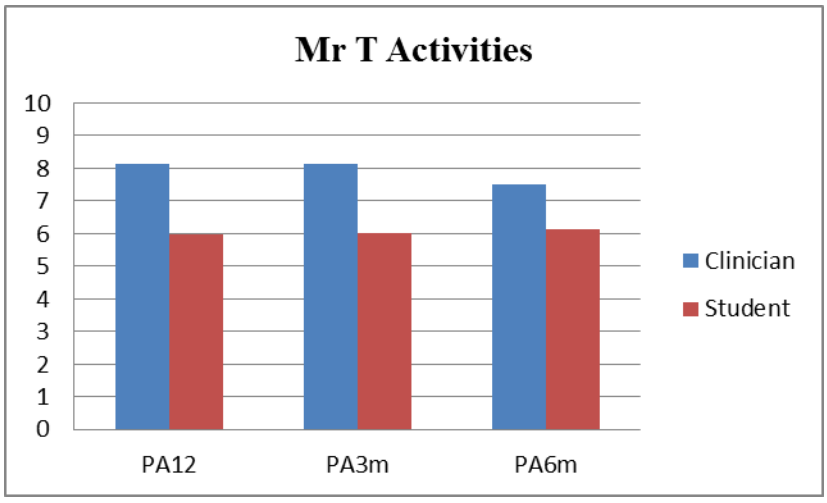


Figure 16. Activities at session 12, three month follow up, and six month follow up.

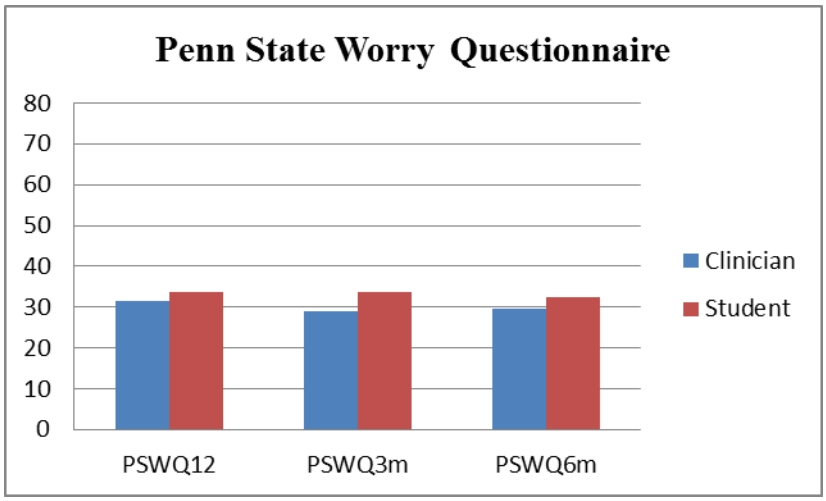


Figure 17. PSWQ score at session 12, three month follow up, and six month follow up.

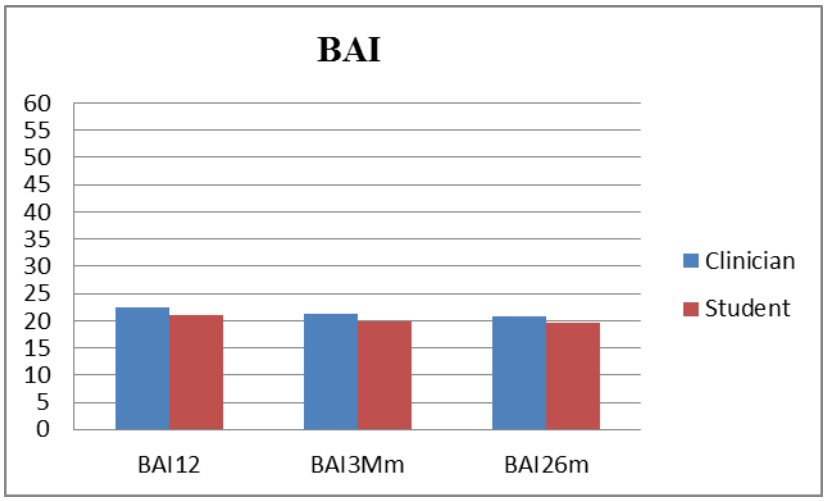


Figure 18. BAI score at session 12, three month follow up, and six month follow up.

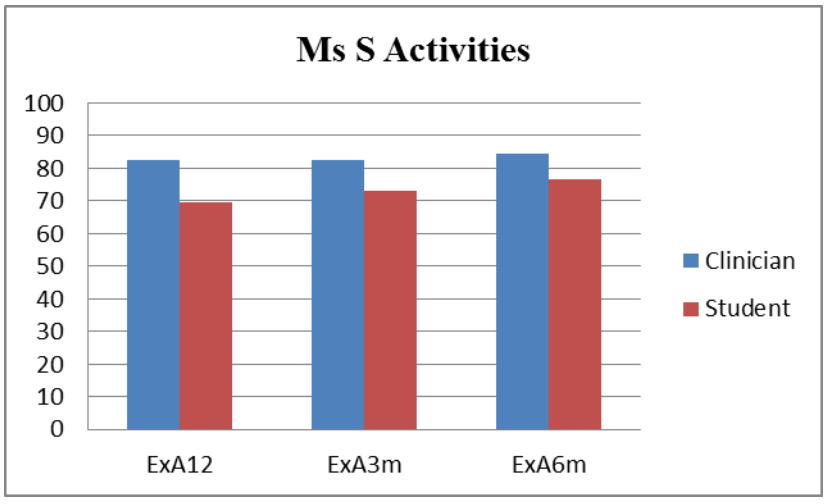


Figure 19. Percent of activities at session 12, three month follow up, and six month follow up.

Analysis also focused on the scores at session 12, three month follow up, and six month follow up. Figure 15 – 20 shows that trends are similar to the results found when assessing session 12 for treatment success. Both mood and symptomatic measures have no specific trends for either clinician or student participants. Clinicians again expected both clients to participate in more activities. Interestingly, however, the number of activities that the clinicians predicted Mr T to participate in reduce over the three and six month follow-ups, whereas the student's predictions remain the same. Clinician predictions of Ms S show minimal change between the twelfth and three month follow up, with a small improvement in the sixth month, whereas students predict Ms S to improve over follow-up.

Again, graphs were analysed for individual differences, showing that the mean is not reflective of half of the cases. At least half of the clinician participants showed evidence of symptomatic and mood increases following therapy cessation for Mr T, whereas students mainly showed no change or further reductions. This trend was less evident in the case of Ms S.

Motivation and Insight cues

When assessing the graphs for changes due to motivation and insight cues placed in the hypothetical case studies, it became apparent that neither the clinicians nor the students had acknowledged them. No sudden improvements or significant change at all were evident at session four and six of both cases on any of the measures.

Participant comments

Participants were given the opportunity to provide comment on the task. Knowledge of CBT was indicated as an influencing factor, with one participant acknowledging that

client would first be committed to therapy as behavioural activation is typically introduced early on in CBT for depression. With an increased participation in activity, the same participant then expected negative affect and symptoms to reduce. Another participant acknowledged that anxiety and worry could potentially increase in the beginning stages of therapy as it can be challenge and frightening for an individual with little self- efficacy. This was supported by another participant, who indicated that anxious symptoms were likely to rise in the beginning stages of therapy, become less severe as she began to participate in activities.

Understanding of the problem severity was also indicated as an influence on the expected change of clients. One participant indicated that they would expect that 12 sessions would not provide enough time to ensure successful treatment for either the depressive or anxious case, thus affecting their responses. Another participant supported this claim in regards to the severity of the score on the BDI-II, and indicated that GAD could be difficult to treat as opposed to other disorders.

Discussion

This study sought to investigate the expectations clinicians and students studying clinical psychology have regarding change in a depressed and an anxious client undertaking successful CBT. This was achieved by asking participants to map their expected change using one mood, one symptom, and one behavioural measure for each client on a specially designed graph. Differences were evident between the clinician participants and the student participants with previously established trends apparent.

The overall course of change expected across all participants showed a gradual linear model. For affect and symptoms, this was shown as either a progressive decline or a decelerating curve. Behaviour change typically showed improvement consistently across all sessions during the course of therapy. Although this is likely due to the statement of "successful therapy", it also suggests all participants' understood what successful change was. Differences apparent between clinicians and students mainly concern variance of the expected course of change within groups and the types of trends that were visible when comparing the plotted graphs. Similarities are also apparent between the groups concerning scores at session twelve relative to success as well as the expectations of change after the cessation of therapy.

Variance within the clinician participants and the student participants suggest there is a relationship between expected change and experience. The student participants showed far more variability within the group and across measures than their clinician counterparts. Alternatively, clinicians seemed to be similar in the nature of their trends. This suggests that depressed and anxious clients are expected to follow a typical pattern when successfully treated with CBT and that clinicians are aware of this through their

experience rather than their theoretical training. This result can be accounted for by students not only being exposed to CBT theory, but also other orientations, concepts, and theories. Furthermore, as noted previously, not all clinicians prefer CBT, and this may be represented in the student population. Despite CBT being the dominant theoretical orientation used in clinical training in New Zealand, clinical students may already have developed a preference to other theoretical orientations which would thus influence their understanding of change as well as have an effect on their understanding of CBT processes. In contrast, the clinicians that were approached for this study all had experience with CBT and were likely to be practitioners in this area for a number of years. Clinicians are also likely to have had more experience with the measures used.

Alternatively, this relationship between experience and course of change can also be accounted for by experience with the literature, rather than experience within the clinical setting itself. As systematic outcome measurement has only recently become apparent in the psychological literature, the more experienced psychologists linearity may be influenced by the more traditional use of pre-, mid-, and post-treatment measurements which reflect a linear progression of change. Theories relating to change would also not have been emphasised in the training of these clinicians.

These differences in variance may have also been enhanced by practical issues. With the majority of clinicians responding to the electronic task, scores are the main way of depicting change, rather than a visible depiction. Clinicians may have then focused on the reductions of scores rather than the way that changes look across the course of therapy. Student participants were able to visibly track the course of change and therefore able to adjust it visually to represent the way they expected clients to respond to therapy.

The present study also provides insight into the influence that theoretical concepts have on the expectations of clients undergoing therapy for anxiety and depression. The present study shows that trends differ between groups as well as within. At present there are no known studies comparing expectations between clinicians and their student counterparts, thus I discuss these results in terms of the trends that became evident whilst analysing clinician and student data.

For Mr T, the depressed client, clinicians provided very similar trends on both the mood and symptom measures, typically showing minimal change in the first two sessions followed by slow gradual reduction, with a flattening off effect in the later sessions. This dominant trend is comparable to the dose-effect curve explored by Howard and colleagues (1993), and expanded through the development of the phase theory. The clinician's expectations differed however by showing gradual linear change over the course of therapy rather than the occurrence of rapid change at the beginning of therapy.

Three trends were apparent in the prediction of change in a depressed client by students. Again, Howard and colleagues (1993) dose-effect curve was apparent, with student expectations following closer to their pattern of change than their clinician counterparts with change occurring more rapidly at the beginning of therapy. This may also be accounted for by the early rapid response depicted by Illardi and Craighead (1994), although this concept has less empirical support. Fluctuations across sessions were also a trend seen across student predictions, associated with the assimilation model and the depression focused dynamical system theories. Students show change processes similar to a sudden gain following the criteria provided by Tang and DeRubeis (1999) which posits that a sudden gain is defined as a sustained decrease of at seven points or more on the BDI-II or an equivalent measure. Face value assessment of fluctuations on the

change curves also shows that depression spikes were evident in some students. In accordance with the definition presented by Hayes and colleagues (2007) students illustrated a sharp increase in symptoms and mood in one session, followed by a return to similar functioning previous to the increase. Again, the concept of early rapid response was present in those trends that showed fluctuations. Although there is not adequate empirical support for the early rapid response concept in therapy, especially in relation to its occurrence within four sessions, some of the student responses express it as an inherent notion. The third trend evident in student predictions was linear in nature and followed the main pattern exhibited by clinicians.

The trends apparent in clinicians for the anxious client were similar to that found in Mr T's expected progress, again with minimal improvement over the first few sessions followed by decelerating improvement representative of the anxiety specific trend depicted by Heimberg and Becker (2002). Unlike the case of the depressed client, there was slightly more variability in clinicians, with a few showing evidence of early response to therapy, much like Howard's (1993) depiction of change.

Students again provided three main trends in there expressions of expected change for the anxious client. Fluctuations were again apparent across sessions, in accordance with changes explained by the assimilation model and expected change in the treatment of anxiety described by Heimberg and Becker (2002). Reflections of the dose-effect curve were also prominent. A distinct trend that also evident in a few students depicted change similar to that of a low flat line of change, although unlike this trend, the flat line of affect and symptoms occurred at a high rate with minimal change.

Other concepts also appeared to influence participant's expectations of change. Symptom severity was acknowledged by a number of participants, suggesting that

longer therapy would be required for someone who began therapy with such high scores on some of the measures. As mentioned by one of the participants, it is important to highlight that it would be unlikely for an individual to eradicate all symptoms. Instead, they would have built coping mechanisms to deal with them. Not only does this show inherent concepts, it also shows an understanding of the measures and typical assumptions associated with these, which are also reflective of change.

Whether or not these theories are influential for clinicians and students, or rather a good representation of theoretical learning (students) or actual change in therapy (clinicians) is yet to be defined. However, my hypothesis that clinical trainees would show a more theoretically oriented view on change as opposed to the more experienced clinicians has been confirmed. Support is evident in these results with student's results mirroring a number of the theories discussed earlier on in this study and the clinicians having very similar responses that are not accounted for by a specific change process described in the literature.

The specially designed graphs allowed for an exploration of the interaction between the three measures. At present, literature seems to speculate on the concept of this and there have been no known studies that account for these relationships to my knowledge. While some have theorised that negative mood reduction would occur before symptoms can be reduced (Nierenberg et al., 2007), the participants of this study, with more consensus amongst experienced clinicians, showed that they expected mood and symptoms to be a parallel construct, that is, that negative mood and symptoms reduce alongside each other and that there is neither influences the other. Trends also showed in the majority of participants, that behaviour participation typically peaked after the majority of negative mood and symptoms had reduced, suggesting that an individual

becomes more invested in behavioural change once feeling more positive and symptomatic impairment is not so invasive. Some behavioural changes occurred in the beginning stages of therapy regardless of mood and affect status, thus it may also be true that participating in activities can impact marginally on the relief of negative mood and symptoms. Although these assumptions can be made, without the assistance of comments from those who completed tasks, it is hard to differentiate between the idea that participants completed the graph acknowledging the different interactions between the three measures, or are simply a reflection of three separate graphs on shown visually as one. However, the familiarity clinicians and students had with the scores suggest that their knowledge is in some way a reflection of what they expect on each measure, and that the relationships of these measures are actually inherent constructs.

With the exception of activities where clinicians are far more optimistic in behavioural change than the students, the two groups were similar in predicting both clients success with the mood and symptom measures at the end of therapy. A large portion of students expect Mr T's mood to reduce lower than 10 points on the PANAS, whereas only one clinicians predicts this, suggesting that students are more optimistic in the reduction of negative mood than clinicians. Students are slightly less optimistic in the reduction of depressive symptoms than clinicians, with a number of students expecting Mr T to fall within the moderate depression range, whereas clinicians expected Mr T to have mild or minimal depressive symptoms. Clinicians and students bore similar expectations for the anxious client on the PSWQ, predicting change to be far lower than that of the non-clinical population mean, and the BAI, all showing symptom exhibition reflective of low anxiety. Although clinicians were more positive in terms of behavioural change, and indications from some participants that initial scores were too high to achieve

successful results, the majority of participants expected both Mr T and Ms S to improve enough to be fall within ranges reflective of the general population. This shows that clinicians and students have similar understandings of realistic improvement of successful CBT, suggesting that theories and experience can be assumed to be reflective of this.

Researcher expectations of a slight increase in negative mood and symptoms at follow up were unconfirmed in this study for both clinicians and students. Some clinicians did indicate an increase in negative affect and symptoms following cessation of treatment, however, a larger sample is required to gain a better understanding of the expectations of change following the end of therapy. The remaining participants indicated a flattening off effect over the last session and both follow ups. Although there may have been some influence with use of the term "successful therapy", it brings some interest directed towards the notion that clients tend to face barriers on their own and do not have the weekly meetings that may have enhanced their progress through therapy following the cessation of sessions. Thus it would be expected that clients may have minor exacerbation of symptoms and negative affect, although not reverting back to clinical standards.

Limitations

Three limitations to the current study regard differences between task's, data collection, and the size of the sample. As indicated in the method, two types of tasks were used. Due to ease of distribution, the majority of clinicians were sent electronic tasks to complete and the majority of students were sent paper tasks. Although clinicians were encouraged to plot scores on paper before inputting them online, there was no way to ensure that this was done. In future it would be preferable for all participants' to receive

paper tasks so that they can plot the course of change as they expect it to *look* like, rather than as a reduction of scores on the change measures.

Although attempts were made to include a large number of clinician and student participants, there were issues that acted as barriers in collecting tasks. Firstly, the time of year tasks were sent out may have been problematic for students as it was during their study break. It was essential for the study however, for tasks to be distributed at that particular time of year to ensure the completion of at least one full year in the clinical programme. Future studies should include data collation at the beginning of the academic year based on a student's involvement in the clinical programme the year before. As clinicians are busy in their day to day work, they require a longer period of time than given in this study to be able to send back their completed tasks. The provision of a deadline may also be helpful in future studies.

Due to these issues in data collection, the present study is limited by the size of the sample. Trends that only appeared in a few participants were perhaps overlooked in contrast to the dominant trend, and perhaps concepts were overlooked entirely due to there being minimal evidence to support them. With a longer allowance of time for participants to complete tasks and wider distribution, in particular to clinicians, it would ensure that an adequate representation of expectations and views are obtained.

The exploratory nature of this study also produced problems. Participants were only asked to make comments if they felt necessary. In future, it would be beneficial to ask participants what influenced them to predict such change, and if further analysis is required, what influenced their score at each session. Through their comments it would be possible to understand the concepts that have influenced them without making them

think directly about the typical techniques, literature or has been impressed upon them throughout their training or experience as a clinician.

The presentation of the graph presented issues for the participants. We justified this as gridlines could be more confusing due to the numbering on the Y axis' differing with the measures. As it is necessary for all three measures to be plotted on the same graph, to ensure that interactions between mood, symptomatic, and behavioural change can be accounted for, and because clients at times plotted one or two more sessions than requested, it may be beneficial in future to include lines from the X axis, which may reduce some of the confusion. Additionally, it is important to note that gridlines were omitted as research interest was focused on the shape of change rather than the scores on the measures.

The use of measures may have also provided this study with a limitation. Some participants noted a lack of familiarity with the PSWQ which may have influenced the nature of the client's progression through change using this measure. To get a true understanding of mood change in anxiety, the PSWQ may need to be in future replaced with a tool more familiar with the participants.

Implications for clinical practice

The present study provides an insight into the implicit concepts possessed by both experienced clinicians and students training to become clinical psychologists. This expands on previous research, but is a relatively new avenue of research in CBT and New Zealand.

The implications of this study begin with opening the dialogue regarding experience versus theory. As student's exhibit variability across their expectations, it would appear

that experience is essential in learning change processes, which can then impact on the process of therapy. Students typically begin their psychotherapeutic careers with a number of theories influencing them alongside two short internships in the first two years of a clinical programme followed by a yearlong internship in the final year. Whilst there is still variability amongst third year students, the findings in this study support the current curriculum's emphasis on training, but also demonstrate the need to familiarise students with concepts that they are likely to come across in the clinical setting. Alternatively, an emphasis on models of change can prepare an intern student by increasing the possibility of an inherent understanding of change and what characteristics may impact on this. Interns will therefore further develop their clinical judgement based on this inherent understanding, and be able to attend to clients who are not doing as well as expected. Further research in this area will then seek to inform clinical programme developers with ideas on types of theory and amount of training that will enhance the learning of students and ease the transition from student to clinician.

With clinicians showing minimal variability in their understandings of change, it allows expansion on the understanding of what change occurs across 12 sessions of psychotherapy. With a gap in empirical research for this type of understanding, the present study forms a basis in which future studies can compare and narrow down further the true expected process of change for clients like those in this case study. Realistically it is acknowledged that every individual is subject to differences when undertaking psychotherapy, however, this form of research allows clinicians to understand what is expected in certain types of clients and can compare current clients to see if they are progressing through therapy in a way that will yield positive outcomes. The use of feedback in day to day practice is a long way from fruition as clinicians have

a substantial amount of faith in their clinical judgement, nevertheless having normative data that one can refer to can ease any doubt that may arise.

The results of this study further clarify the course of change for client's in therapy, enhancing theory in the area of feedback by offering support to understanding clients who are showing "good enough change" at any time during therapy. Furthermore, other theories are also supported and extended by the explorations conducted in this study. The current study adds support to theories that have already been empirically validated such as the assimilation model. It also furthers the literature on controversial approaches such as the early rapid response and extends knowledge regarding relatively new concepts, for instance, the depression spike.

Another area that lacks empirical research is in reference to the interaction of mood, symptoms and behaviour in therapy. Gaining an understanding of whether or not symptoms require reductions prior to involvement in participation in activities, or vice versa, enables clinicians to know what to focus on in the earlier sessions of therapy. Having this knowledge will also reduce the time it takes to achieve clinically significant reductions in clients, thus gaining relief faster and even reducing time and cost associated with therapy. The current literature only speculates on these ideas and the present study forms another basis from which future researchers can expand from.

Future Directions

Research on change within psychotherapy practice has typically focussed on pre and post treatment measurements. The direction of this research has begun to change finally, 15 years after Howard and colleagues first devised the idea of patient-centred research. This study acts as a stepping stone bringing awareness to these issues.

This study continues on from patient-focused research, which in itself provides a number of opportunities that can be associated with this study. While this study showed what type of changes can occur throughout therapy, it also allows for an understanding of the expected effectiveness of CBT. Additionally, this study provides an opportunity for a more in depth analysis of the type of change that takes place at what point in therapy and why those who deviate from the expected path, or drop out, do so. From the exploration of change expectations in this study, it is also possible to expand on the expectations observed in this study based on the characteristics of a client. Potential future avenues of this research include assessing client factors such as age, gender, ethnicity, type of illness, and symptom severity. Further expansion would include comparisons between psychologists in other countries as well as modes of therapy. Furthermore, a study design such as this can expand the knowledge surrounding such theoretical concepts as mechanisms of change and common factors with clinician expectations again being explored through the use of case studies.

While this study focused on the comparisons between students and clinicians, future studies should focus on differences found based on the number of years a student has undertaken clinical programmes in New Zealand Universities. This would further enhance the understanding of theory versus experience, with those closer to the end of the programme expected to be more similar to clinicians, especially after the experience developed in their internship year. Clinicians with less experience should also be compared to see if modern theories are more prominent or if there is a traditional view on client change.

Conclusions

The study of the course of change in psychotherapy has received little attention despite the importance of measuring outcomes and providing feedback having been clearly illustrated.

Using a task created by the researchers, the present study explored the expected change patterns of a depressed and an anxious client undertaking successful CBT as expected by clinicians and clinical psychology students. As this form of research has not been previously reported, this study acts as an exploration strictly aimed at providing insight rather than direct generalisations. Expectations provided by participants overall reflected a gradually declining linear trend similar to Howard and colleagues (Howard et al., 1993), with some support for the occurrence of non-linear trends such as the early rapid response (Ilardi & Craighead, 1994), the depression spike (Hayes, Feldman, et al., 2007), and fluctuations associated with anxiety provocation (Heimberg & Becker, 2002). Variability was prominent within the student group, whereas clinicians were similar in their expectations, suggesting a potential relationship between understanding change processes and experience. This study also explored the relationship between symptom, affect, and behavioural change, suggesting that the majority of clinicians and students expect mood and symptoms to improve alongside each other, rather than one having an effect on the other. Behaviour in contrast, was overall predicted to improve after the majority of symptom and negative affect reductions had occurred. Despite hypothesised differences between clinicians and students based on optimism at the twelfth session, both groups of participants yielded similar results. This was also true of expected change at follow-up. Motivation and insight cues provided no impact on client change predictions.

This research thus provides a great deal of insight on already established theories of change as well as developing a basis of change that can occur throughout a course of successful therapy. With the provision of time and the use of a larger sample, these findings could not only be extended, but they also provide a number of opportunities for future research.

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Appendix A: Client Change Task – Paper Form

CLIENT CHANGE:

Clinicians' expectations of progress during and after CBT

Dear Clinical Psychologist/Intern/Student

The following exercise has been designed to investigate the way in which therapists expect clients to make progress during the course of therapy, the degree of change that can be expected, and the degree to which lasting change might be seen at different lengths of follow-up. This is a pilot study at this stage; you do not need to put your name on the response sheets, but you can if you want to.

Two typical clients are described in some detail and a fairly standard protocol of CBT intervention is suggested. Your task is to read the scenario carefully and then enter on the attached graphs specific likely data points that will result after each session.

For each client it is suggested that the therapist intends to monitor three possible outcome measures. You may not be entirely familiar with these measures, so some basic information is provided regarding clinical norms. Because there are three measures per client, we have provided three separate scales on the Y axis; please use these scales for each of the three measures. This saves us printing out three different graphs. You will note that the values entered for Session 1 for each measure correspond to the values specified in the scenario. Make sure you use the right symbols for your three lines on the graph so we know which measure you are actually predicting.

This is not an evaluation of your clinical skills! There are no right or wrong answers; we are interested in your own predictions or projections. But do assume that *you* are the therapist!

There is room for comment at the end of this task. If you like, please write in anything that guided your projections, such as "this is a complex case and I'd not expect much improvement" or "I've used the BAI and scores seem to vary from week to week." We are interested in your reasoning about monitoring client progress.

THANKS VERY MUCH FOR YOUR PARTICIPATION IN THIS STUDY!
IT IS APPRECIATED.

AMBER FLETCHER AND IAN EVANS

Client 1: Mr T.

Mr T is a 35-year-old married man with two children who was referred for therapy by his family doctor. His GP diagnosed clinical depression which had been troubling the client for some months, and suggested psychotherapy rather than any medication. During your initial interview (Session 1) you felt that rapport had been easily established. When treatment goals were being discussed, Mr T stated that he hoped to experience less negative moods on a day-to-day basis, to have a healthier, happier lifestyle (this seemed to include reduction in symptoms such as loss of appetite, poor sleeping, being easily tired), and to be able to get out and do more enjoyable things with his family or by himself, the way he used to do in the past.

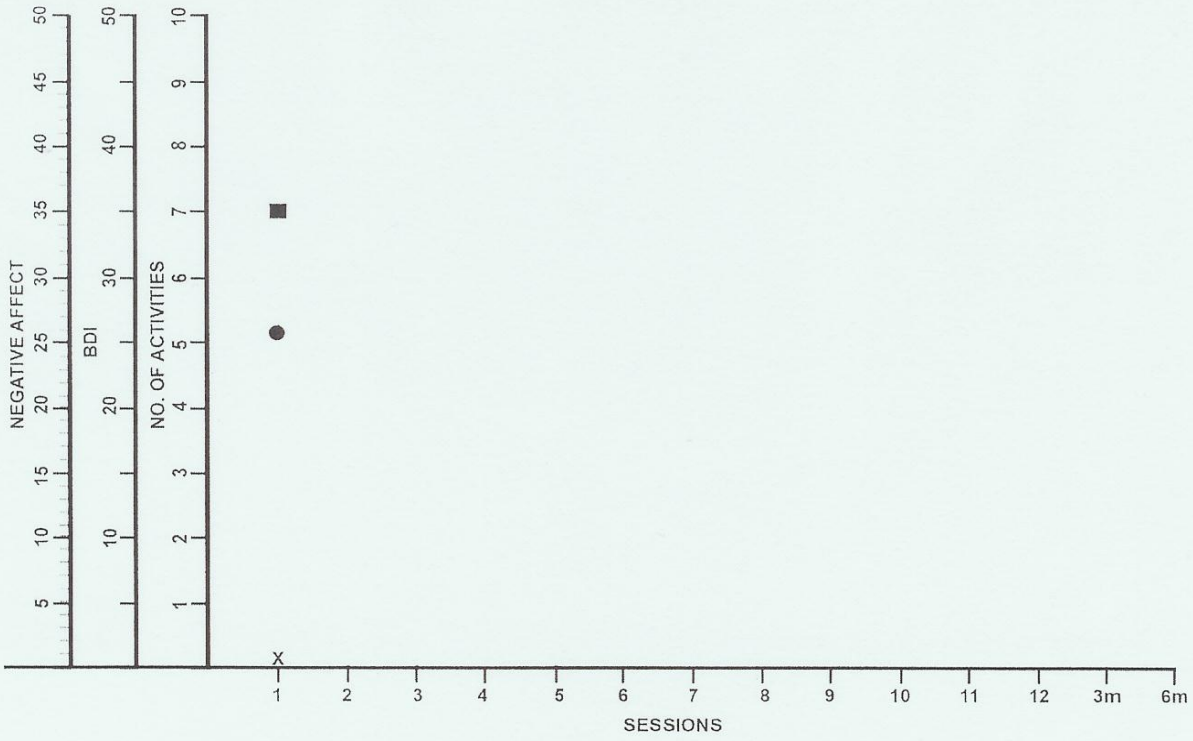
As his therapist you decide, therefore, to monitor progress by routine psychological measurement. You decide to measure: (a) **mood** by means of the Negative Affect scale of the PANAS (based on the past few days, not right at this moment); (b) clinical **symptoms of depression**, using the BDI-II; and (c) a self-report of the **number of positive activities** he engaged in per week, based on his recall.

During the first session you explain to Mr T that it will be a helpful guide to treatment if you obtain this psychometric information each week. Before the end of the session you gather data from the three measures. His Negative Affect (NA) score was 26, which is quite a high score as a more typical score for an average adult is about 14. His BDI score was 35, indicating a severe level of depression—scores for people with little or no depression are usually less than 13, which is considered a clinically significant cut-off score. In terms of the number of pleasurable activities he could recall in the past week (excluding going to work and watching TV), his answer was none (zero). Most people should be able to think of 7-10 enjoyable activities that they have done in a given week, and some people will report many more than that.

Your third-party payer (insurance coverage) has determined that a maximum of 12 sessions can be covered, but that you could have two follow-up or booster sessions 3 months and 6 months after the end of treatment.

Your treatment followed a standard evidence-based CBT protocol for depression, and included some psycho-education, cognitive restructuring of irrational thoughts, homework assignments, teaching coping skills, encouraging him to engage in rewarding activities, and so on. At the end of Session 4 Mr T made a statement indicating he had made a commitment to “turning my life around.” At the end of Session 6 you felt that there was something of a breakthrough in treatment as Mr T revealed significant insight into the possible causes and nature of his problem.

On the graph below, please enter your best prediction of what Mr T’s scores on the three clinical monitoring tasks would be for **each** of the 12 sessions (we have filled in the actual scores obtained during Session 1) and what you think you might have found at the 3-month and 6-month follow up visits.



● = NA from the PANAS

■ = BDI

X = No. of Activities

Client 2: Ms S.
Ms S is a 31-year-old woman with two young children; she is unmarried but in a stable relationship with her partner who is a builder. Ms S is currently at home looking after the children; before her first child was born she worked as a receptionist at a dry-cleaning business. Ms S was referred by her GP for chronic anxiety.

From the description her doctor provided it seemed clear that she had generalised anxiety disorder (GAD) with some panic or agoraphobic-like symptoms (heart palpitations, feeling dizzy, thinking she was going to pass out, sweaty hands, and hyperventilation). She was experiencing discomfort when at social events such as parties, when out shopping at the mall or a crowded supermarket, and was avoiding many such activities, which was disruptive for the family. When taking the children somewhere in the car she was especially nervous.

During your first session you asked her what her goals for therapy were. She stated that she wanted to be free of the symptoms of anxiety, to stop worrying and feeling nervous all the time, and to be able to engage in ordinary everyday social activities like she used to be able to do without avoiding them or always trying to escape. Given these goals you decided to monitor on a weekly basis her **anxiety symptoms**, using the 21-item Beck Anxiety Inventory (BAI-but asking about the past week, not the past month), her **worrying** during the week, using the 16-item Penn State Worry Questionnaire (PSWQ), and her **avoidant behaviour** using a self-recorded daily diary (Daily Events).

The diary consisted of a list you and she constructed of all the everyday activities and events she felt she *should* be able to do or go to, including some easier ones such as getting bread at the dairy, and harder ones such as going to parents' night at her daughter's preschool. There were two columns to be ticked off each day: one column as to whether she wanted to or needed to engage in the activity, and the second column whether she did the activity or avoided it (asked her partner to go instead, or phoned up and cancelled), including escaping by leaving early or not getting everything she needed when shopping. The weekly score for this daily events diary was the *percentage* of activities on the list that she wanted to do that week that she actually did do. Some weeks the number of activities she needed to engage in could be quite small, say only 5; if she succeeded by doing (not avoiding or escaping) one of them, her score was 20% for that week. During your first session you explained these weekly measures and asked her to complete the three measures for the past week before she came to see you.

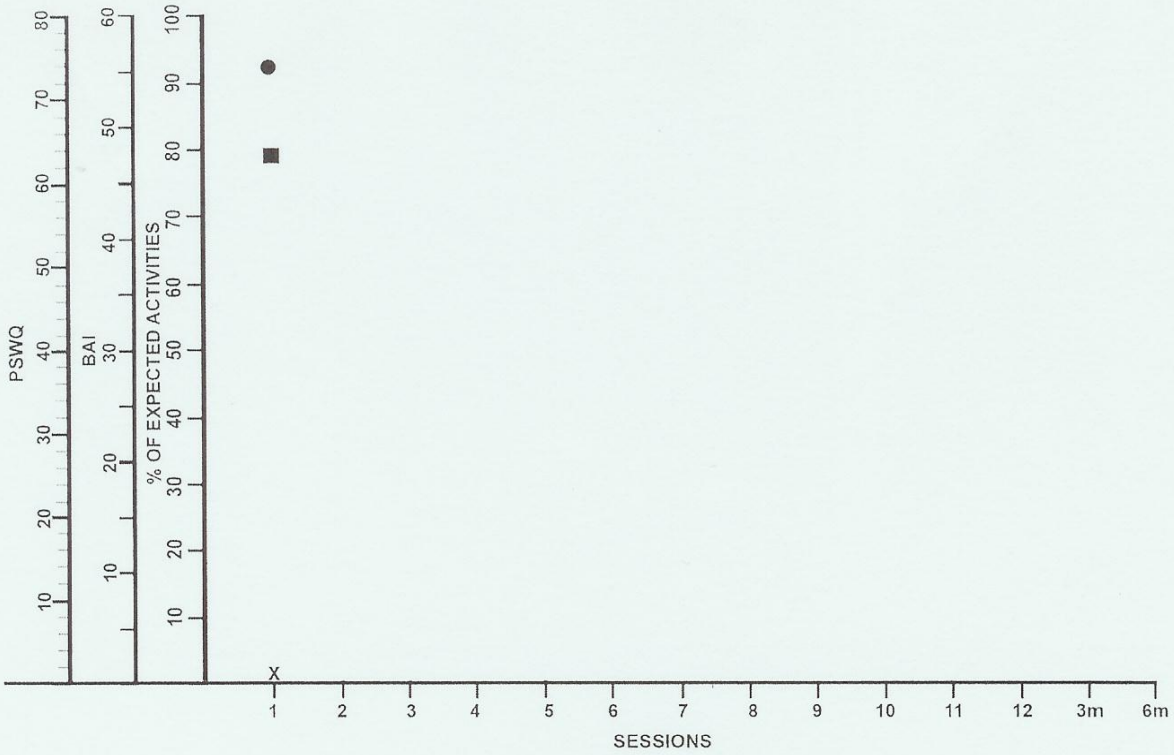
Her score on the BAI was 48 out of a possible high of 63. Low or typical anxiety levels score between 0 and 21. Ms S's initial score on the PSWQ was 73 out of a maximum of 80; no reported worries at all obtains a score of 16 and 32 indicates mild or rare worrying. Ms S thought of about 11 activities or events she probably should have done or wanted to do the previous week and she did none of them, so her percentage score on the Daily Events Diary was 0.

During your first session you felt that you connected well with Ms S and were positive in affirming that anxiety was not uncommon and responded well to CBT treatment.

You introduced a standard treatment protocol. This consisted in a number of components: (a) psycho-education on the nature of fear and anxiety and why she was having the physiological symptoms and what we mean by anxiety sensitivity; (b) you explored the relationship between fear and avoidance behaviour; (c) you taught her deep muscle relaxation and how to take calming breaths—she was to practice this when alone at home and to deliberately use the relaxation strategy when feeling nervous; (d) you established a hierarchy of activities from the easiest to the most difficult and encouraged her to make a commitment to start doing the easier ones, and to reward herself in small ways for each success; (e) you explored her catastrophic irrational thoughts by asking her to compile a list of the possible negative outcomes of events and activities and you encouraged her replace these with more positive thoughts (this was a homework task); (f) and you gave her some “mindfulness” exercises in which when she was feeling anxious, instead of fighting the feeling, she was to stay with it for a few moments, a little bit like a detached observer from above.

Her insurance coverage allowed you to see her for only 12 sessions, but that you could have a follow-up session at 3-months and 6-months post treatment. At the end of Session 4 Ms. S reported an increase in self-efficacy—that is to say she told you for the first time that she thought she would be able to eventually carry out all the things she had been avoiding. During Session 6 Ms S described how she had been talking to her partner and during the discussion she had a realisation for the first time that much of her anxiety started during high school. Her parents, who were now deceased, had always been quite punitive and very critical and as a teenager she started to feel she could never live up to their expectations in terms of school work, looks, personality, and so on.

On the graph below, please enter your best prediction of what Ms S’s scores on the three clinical monitoring tasks would be for **each** of the 12 sessions (we have filled in the actual scores obtained during Session 1) and what you think you might have found at the 3-month and 6-month follow up visits.



3m = 3-Month follow up
6m = 6-Month follow up

● = PSWQ

■ = BAI

X = % OF EXPECTED ACTIVIES

THAT'S IT!

However, now that you have **finished** the task, would you please answer the questions below:

I have had ____ number of years of clinical experience.

I am familiar with ALL SOME NONE *of the measures described.*

I have used CBT with anxiety disorders YES NO

I have used CBT with depression YES NO

If you would not typically use any of the therapeutic methods mention, please explain which ones and state what modes of treatment you would prefer:

Please add any other comments that you feel might be useful for our study:

PLEASE RETURN THE ENTIRE QUESTIONNAIRE TO AMBER OR IAN

Appendix B: Client Change Task – Electronic Form

CLIENT CHANGE:
Clinician's expectations of progress during and after CBT

Instructions

Dear Clinical Psychologist/Intern/Student

The following exercise has been designed to investigate the way in which therapists expect clients to make progress during the course of therapy, the degree of change that can be expected, and the degree to which lasting change might be seen at different lengths of follow-up.

Two typical clients are described in some detail and a fairly standard protocol of CBT intervention is suggested. Your task is to read the scenario carefully and then enter on the attached graphs specific likely data points that will result after each session.

For each client it is suggested that the therapist intends to monitor three possible outcome measures. You may not be entirely familiar with these measures, so some basic information is provided regarding clinical norms. Because there are three measures per client, we have provided three separate scales on the Y axis; please use these scales for each of the three measures. This saves us printing out three different graphs.

It is common for clinicians who are monitoring client change to keep track of progress (or otherwise) by entering scores graphically so that general trends can be seen visually right away. If you like to print out this Client chart PDF you could enter data points on each graph so that your expected trends can be seen. However it is necessary to record each data point on the table so that we can record your estimates electronically. Therefore, please enter your scores electronically, or alternatively send your print-outs and comments to:

Amber Fletcher
School of Psychology
Massey University
Private Bag 11122
Palmerston North 4442
Email: amberfletcher6@gmail.com

If you would prefer to receive a task in the mail with a postage paid envelope instead, please email me at amberfletcher6@gmail.com .

This is not an evaluation of your clinical skills! There are no right or wrong answers; we are interested in your own predictions or projections. But do assume that *you* are the therapist!

There is room for comment at the end of this task. If you like, please write in anything that guided your projections, such as "this is a complex case and I'd not expect much improvement" or "I've used the BAI and scores seem to vary from week to week." We are interested in your reasoning about monitoring client progress.

THANKS VERY MUCH FOR YOUR PARTICIPATION IN THIS STUDY!

IT IS APPRECIATED.

AMBER FLETCHER AND IAN EVANS

Below you are asked for an ID code. Please disregard this if it was not provided in your email message,
as it is no longer required in the process of this research.

Please enter the ID code provided in the email invitation sent to you asking you to participate.	

Client 1: Mr T

Mr T is a 35-year-old married man with two children who was referred for therapy by his family doctor. His GP diagnosed clinical depression which had been troubling the client for some months, and suggested psychotherapy rather than any medication. During your initial interview (Session 1) you felt that rapport had been easily established. When treatment goals were being discussed, Mr T stated that he hoped to experience less negative moods on a day-to-day basis, to have a healthier, happier lifestyle (this seemed to include reduction in symptoms such as loss of appetite, poor sleeping, being easily tired), and to be able to get out and do more enjoyable things with his family or by himself, the way he used to do in the past.

As his therapist you decide, therefore, to monitor progress by routine psychological measurement. You decide to measure: (a) **mood** by means of the Negative Affect scale of the PANAS (based on the past few days, not right at this moment); (b) clinical **symptoms of depression**, using the BDI-II; and (c) a self-report of the **number of positive activities** he engaged in per week, based on his recall.

During the first session you explain to Mr T that it will be a helpful guide to treatment if you obtain this psychometric information each week. Before the end of the session you

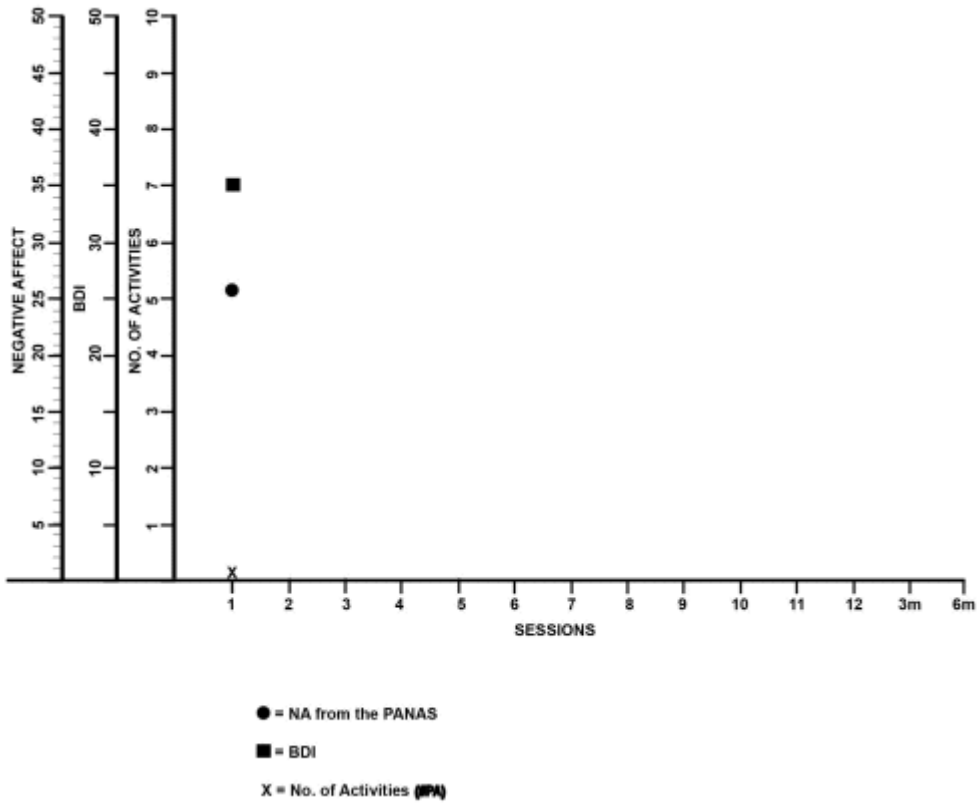
gather data from the three measures. His Negative Affect (NA) score was 26, which is quite a high score as a more typical score for an average adult is about 14. His BDI score was 35, indicating a severe level of depression—scores for people with little or no depression are usually less than 13, which is considered a clinically significant cut-off score. In terms of the number of pleasurable activities (#PA) he could recall in the past week (excluding going to work and watching TV), his answer was none (zero). Most people should be able to think of 7-10 enjoyable activities that they have done in a given week, and some people will report many more than that.

Your third-party payer (insurance coverage) has determined that a maximum of 12 sessions can be covered, but that you could have two follow-up or booster sessions 3 months and 6 months after the end of treatment.

Your treatment followed a standard evidence-based CBT protocol for depression, and included some psycho-education, cognitive restructuring of irrational thoughts, homework assignments, teaching coping skills, encouraging him to engage in rewarding activities, and so on. At the end of Session 4 Mr T made a statement indicating he had made a commitment to "turning my life around." At the end of Session 6 you felt that there was something of a breakthrough in treatment as Mr T revealed significant insight into the possible causes and nature of his problem.

On the table below, please enter your best prediction of what Mr T's scores on the three clinical monitoring tasks would be for **each** of the 12 sessions (we have filled in the actual scores obtained during Session 1) and what you think you might have found at the 3-month and 6-month follow up visits. (The associated chart with Mr T's first session scores is shown below the table.)

	1	2	3	4	5	6	7	8	9	10	11	12	3m	6m
NA	26													
BDI	35													
#PA	0													



Client 2: Ms S

Ms S is a 31-year-old woman with two young children; she is unmarried but in a stable relationship with her partner who is a builder. Ms S is currently at home looking after the children; before her first child was born she worked as a receptionist at a dry-cleaning business. Ms S was referred by her GP for chronic anxiety.

From the description her doctor provided it seemed clear that she had generalised anxiety disorder (GAD) with some panic or agoraphobic-like symptoms (heart palpitations, feeling dizzy, thinking she was going to pass out, sweaty hands, and hyperventilation). She was experiencing discomfort when at social events such as parties, when out shopping at the mall or a crowded supermarket, and was avoiding many such activities, which was disruptive for the family. When taking the children somewhere in the car she was especially nervous.

During your first session you asked her what her goals for therapy were. She stated that she wanted to be free of the symptoms of anxiety, to stop worrying and feeling nervous all the time, and to be able to engage in ordinary everyday social activities like she used to be able to do without avoiding them or always trying to escape. Given these goals you decided to monitor on a weekly basis her **anxiety symptoms**, using the 21-item Beck Anxiety Inventory (BAI-but asking about the past week, not the past month), her **worrying** during the week, using the 16-item Penn State Worry Questionnaire (PSWQ), and her **avoidant behaviour** using a self-recorded daily diary (Daily Events).

The diary consisted of a list you and she constructed of all the everyday activities and events she felt she *should* be able to do or go to, including some easier ones such as getting bread at the dairy, and harder ones such as going to parents' night at her daughter's preschool. There were two columns to be ticked off each day: one column as to whether she wanted to or needed to engage in the activity, and the second column whether she did the activity or avoided it (asked her partner to go instead, or phoned up and cancelled), including escaping by leaving early or not getting everything she needed when shopping. The weekly score for this daily events diary was the *percentage* of activities (%ExA) on the list that she wanted to do that week that she actually did do. Some weeks the number of activities she needed to engage in could be quite small, say only 5; if she succeeded by doing (not avoiding or escaping) one of them, her score was 20% for that week. During your first session you explained these weekly measures and asked her to complete the three measures for the past week before she came to see you.

Her score on the BAI was 48 out of a possible high of 63. Low or typical anxiety levels score between 0 and 21. Ms S's initial score on the PSWQ was 73 out of a maximum of 80; no reported worries at all obtains a score of 16 and 32 indicates mild or rare worrying. Ms S thought of about 11 activities or events she probably should have done or wanted to do the previous week and she did none of them, so her percentage score on the Daily Events Diary was 0.

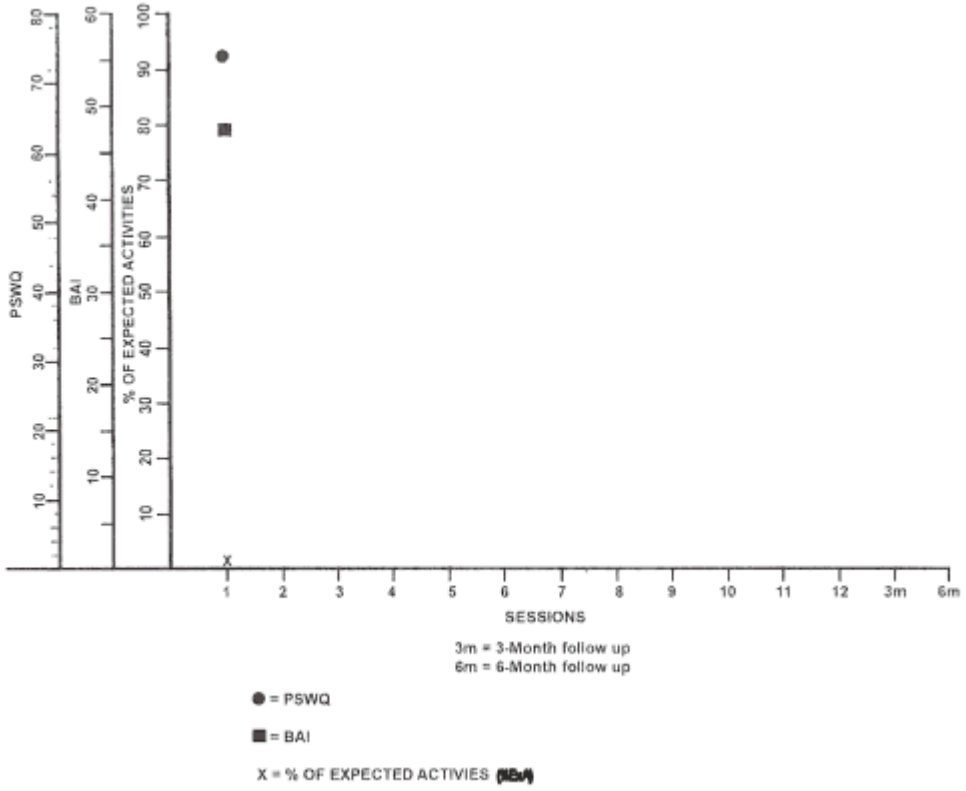
During your first session you felt that you connected well with Ms S and were positive in affirming that anxiety was not uncommon and responded well to CBT treatment.

You introduced a standard treatment protocol. This consisted in a number of components: (a) psycho-education on the nature of fear and anxiety and why she was having the physiological symptoms and what we mean by anxiety sensitivity; (b) you explored the relationship between fear and avoidance behaviour; (c) you taught her deep muscle relaxation and how to take calming breaths—she was to practice this when alone at home and to deliberately use the relaxation strategy when feeling nervous; (d) you established a hierarchy of activities from the easiest to the most difficult and encouraged her to make a commitment to start doing the easier ones, and to reward herself in small ways for each success; (e) you explored her catastrophic irrational thoughts by asking her to compile a list of the possible negative outcomes of events and activities and you encouraged her replace these with more positive thoughts (this was a homework task); (f) and you gave her some "mindfulness" exercises in which when she was feeling anxious, instead of fighting the feeling, she was to stay with it for a few moments, a little bit like a detached observer from above.

Her insurance coverage allowed you to see her for only 12 sessions, but that you could have a follow-up session at 3-months and 6-months post treatment. At the end of Session 4 Ms. S reported an increase in self-efficacy—that is to say she told you for the first time that she thought she would be able to eventually carry out all the things she had been avoiding. During Session 6 Ms S described how she had been talking to her partner and during the discussion she had a realisation for the first time that much of her anxiety started during high school. Her parents, who were now deceased, had always been quite punitive and very critical and as a teenager she started to feel she could never live up to their expectations in terms of school work, looks, personality, and so on.

On the table below, please enter your best prediction of what Ms S's scores on the three clinical monitoring tasks would be for **each** of the 12 sessions (we have filled in the actual scores obtained during Session 1) and what you think you might have found at the 3-month and 6-month follow up visits. (The associated chart with Ms S's first session scores is shown below the table.)

	1	2	3	4	5	6	7	8	9	10	11	12	3m	6m
PSWQ	73													
BAI	48													
%ExA	0													



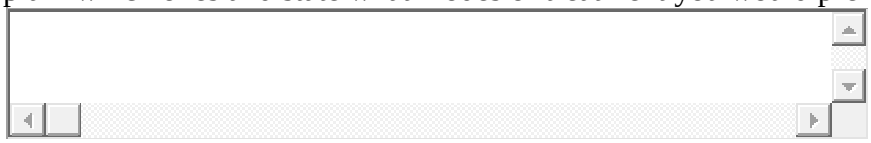
Clinical experience

Now that you have **finished** the task, would you please answer the questions below:

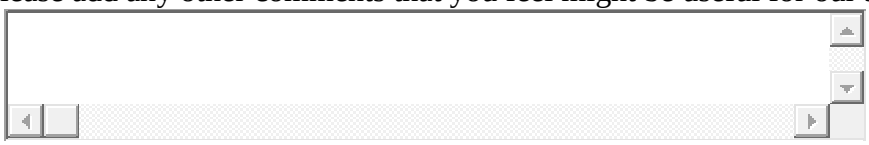
1	How many years of clinical experience do you have?	☐ years
2	How many of the measures described are you familiar with?	○ All ○ Some

		○ None
3	I have used CBT with anxiety disorders.	○ Yes ○ No
4	I have used CBT with depression.	○ Yes ○ No

C5. If you would not typically use any of the therapeutic methods mention, please explain which ones and state what modes of treatment you would prefer:



C6. Please add any other comments that you feel might be useful for our study:



To submit your results, please click on the ***Submit this information*** button.
With submission of your answers, you imply consent to participate in this study.

Submit this information.

If you wish to wipe your answers, click on the ***Clear your answers*** button.

Clear your answers.

This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern A, Application 10/58.

If you have any concerns about the ethics of this research, please contact Dr Karl Pajo, Chair, Massey University Human Ethics Committee: Southern B, telephone 04 801 5799 x 6929, email humanethicsouthb@massey.ac.nz