Factors Related to Psychotherapists' Self-Assessment Bias when Treating Anxiety and Other Disorders

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Abstract

OBJECTIVE: The aim of the study was to replicate and extend recent findings regarding therapists' self-assessment biases. This study examined clinicians' estimates of their abilities when working with general clinical groups and with anxious patients, and of the recovery/improvement rates of their clients. It also considered what clinician personality traits and clinical practice elements were associated with such biases.

METHOD: A total of 195 clinicians completed a survey regarding self-ratings, team ratings, therapy outcomes for their clients, and their personality traits.

RESULTS: The great majority of clinicians rated themselves and their teams as being better clinicians than their peers, though not to as extreme a level as in the previous study. They also reported exceptionally positive therapy outcomes. In general, these self-assessment biases were associated with higher levels of emotional stability, conscientiousness, and openness, but not with all clinic variables (e.g., there was a link between additional accreditation and reported recovery rates, but no relationship with supervision or professional background).

CONCLUSION: Different possible explanations for these self-assessment biases are outlined, including conscious and unconscious processes. Methods for enhancing accurate skill perception are discussed, including self-monitoring and supervision.

Keywords: Therapist personality, self-assessment, clinician outcome, clinician belief

Factors Related to Psychotherapists' Self-Assessment Bias When Treating Anxiety and Other Disorders

Research has shown that the most efficacious psychological treatments for anxiety disorders come from the cognitive behavioural therapy (CBT) paradigm, either with or without psychopharmacology as a supplement (Bradley, Greene, Russ, Dutra, & Westen, 2005; Eddy, Dutra, Bradley, & Westen, 2004; Fedoroff & Taylor, 2001; Hofmann & Smits, 2008; Norton & Price, 2007; Otto, Pollack, & Maki, 2000; Westen & Morrison, 2001). While recovery rates across anxiety disorders are different across studies, they are all relatively high. For example, CBT treatment for posttraumatic stress disorder has a recovery rate of 67% of those who complete treatment (Bradley et al., 2005). Similarly high improvement rates (58%) have been reported for clients treated with CBT for generalised anxiety disorder (Butler, Chapman, Forman, & Beck, 2006). Across a wider range of disorders, Hansen, Lambert, and Forman (2002) report that over half of patients in such trials achieve recovery, while about two-thirds make clinically meaningful improvement. However, these data apply to efficacy and effectiveness studies rather than everyday clinical practice.

Despite these empirically supported treatments (ESTs) being available to clinicians, recovery and improvement rates are lower in everyday mental health practice. For example, Hansen et al. (2002) found a mean rate of recovery of 14%, a further 21% showing clinical improvement, 8% deteriorating and 57% showing little change. These figures are substantially less positive than those achieved in efficacy and effectiveness trials. Similarly, Westbrook and Kirk (2005; 2007) reported that approximately 33% of patients in routine care recovered, a further 15% showed reliable improvement, and 2-3% deteriorated, leaving approximately 48% unchanged. Chilvers et al.'s (2001) study of outcomes for depression showed a good outcome in approximately 30% of cases overall, with a further 30%

improving, and 40% failing to improve. Better outcomes were shown by Schindler, Hiller, and Witthöft (2011), who found 48% recovery, 25% improvement, 2% deterioration and 25% remaining unchanged. However, despite the variation in outcomes between naturalistic studies, it is clear that there is a substantial gap in outcomes between more controlled studies and everyday practice. That effect might be due to the lower number of therapy sessions delivered in routine practice (Hansen et al., 2002), different patient profiles, or variations in delivery by the therapist.

There are many potential reasons for such variable delivery of therapies across therapists. One possible reason is that clinicians assume that their own clinical work is already of a high standard, both in relation to other clinicians and in terms of patient outcomes, and that consequently they do not need to focus on evidence-based methods. Such an assumption would mean that clinicians would perceive little reason to focus on monitoring, maintaining, and improving their skills and outcomes. Walfish, McAlister, O'Donnel, and Lambert (2012) found evidence to support this hypothesis. In a cohort of psychological therapists, the mean self-rated skill level relative to colleagues was high, with the mean rating being at the 80th centile (rather than the 50th, as should be the case). Indeed, no clinicians saw their skill level as being below the 50th centile, meaning that no-one saw themselves as being below the average level of skill. This overestimation of ability is found in a range of skills, such as driving and job performance (e.g., Anderson, Warner, & Spencer, 1984; Meyer, 1990), and is known as 'self-assessment bias'. Furthermore, when asking these clinicians about how many of their patients recovered or improved, Walfish et al. (2012) found that clinicians believe that most of their clients recover after therapy. In a similar vein, Brosan, Reynolds, and Moore (2008) found that, overall, therapists' self-ratings have no more than moderate agreement with independent ratings of their competence. Furthermore, they found that less objectively competent therapists over-rated their own abilities more than

competent therapists did.

This early evidence of self-assessment biases among psychological therapists requires replication, but it will be equally important to elaborate on the reasons for those patterns of belief about skill level and therapy outcomes. One possible factor is the therapist's own personality. Research on psychodynamic therapists has found that personality style can affect the outcome of psychotherapy (Heinonen, Knekt, Jääskeläinen, & Lindfors, 2014; Heinonen, Lindfors, Laaksonen, & Knekt, 2012). For example, therapists who treated mood and anxiety disorders produced faster symptom reduction in short-term therapy if they were more extroverted, whereas more neutral and cautious therapists elicited better and longer-lasting results in long-term therapy. Furthermore, therapists who were less open and less extroverted had a difficult time establishing a lasting working relationship with clients. Finally, therapists' perceptions of treatment outcomes were unrelated to the outcomes reported by clients.

An alternative or additional possibility is that clinical variables are relevant to clinicians' beliefs about their ability and outcomes. Such variables are likely to include supervision and training. For example, Öst, Karlstedt, and Widén (2012) have shown that clinicians in training were able to perform at the same level as experienced clinicians as long as they received dedicated supervision. Similarly, additional post-qualification training might help clinicians to perceive their own abilities and limitations more realistically, as suggested by Brosan, Reynolds, and Moore (2006). These authors found that clinicians with additional training were more competent, but there was no comparable benefit of simple level of experience.

The first aim of this study is to replicate the work of Walfish et al. (2012), assessing at what relative level clinicians perceive their own abilities and those of their colleagues, and their judgements of how effective is the therapy that they deliver. This replication will be

carried out in the UK, rather than in the US (Walfish et al., 2012). The second aim is to extend that work by determining factors that might influence this self-assessment bias, focusing on clinicians' personality traits and other clinical and demographic factors (e.g., age, supervision). There will be a particular focus on clinicians' own levels of emotional stability.

Methods

Ethics

The University of Sheffield Psychology Department Ethics Committee approved this study.

Design

This was a cross-sectional study of mental healthcare providers working with anxious clients. The study used a survey and self-report inventories. The data were analysed using mixed comparative and correlational methods.

Participants

A total of 801 mental health care providers were approached from an online database and via three workshops, and asked if they would complete this study. Six hundred twenty-eight therapists from the British Association for Behavioural and Cognitive Psychotherapies (BABCP) were emailed to ask if they would participate via an online survey. Each listed themselves on the BABCP therapist list as working with anxiety disorders or trauma. Of the 628 clinicians, 124 began and 93 completed the online survey. Of the 93, five gave partial information due to a technical error (ratings related to anxiety were not recorded). One of the 93 responses was deleted at the request of participant, due to an error in completion, and that person re-took the survey. The 30 remaining non-completed responses were unusable. Two participants listed that they worked with anxiety on the BABCP website, but reported in the study that they did not in fact work with anxiety. The rest of their usable data were still recorded and included. Thus, a total of 93 responses were used from the online survey.

The remaining 173 were therapists attending training workshops, who were asked to participate by completing a paper questionnaire. Of these 173 therapists, 103 started the study. However, one gave inadequate information, and therefore was eliminated from the study. Thus, 102 responses were used from workshops. Three participants incorrectly filled out the personality measure (discussed below), but the rest of their data were included. One gave multiple answers to the outcome scales for their general client group so those data were removed, but the rest of their answers were used. Another clinician did not report their skills and outcomes when working with a general client group, but the rest of their data were included.

Thus, a total of 227 responses were collected. Of these, 195 provided useable responses (32.8% male, 66.7% female, 0.5% preferred not to disclose). Their mean age was 46.5 years (SD = 9.99). Of the 195 participants, 32 reported being clinical psychologists (16.4%), 15 were counselling psychologists (7.7%), two were psychiatrists (1.0%), 47 were psychiatric nurses (24.1%), five were clinical social workers (2.6%), one was a marriage and family therapist (0.5%), 20 were licensed professional counsellors (10.3%), 72 were in another mental healthcare profession (36.9%), and one person (0.5%) did not report their profession. The mean years qualified was 11.3 (SD = 8.91). In terms of professional accreditation, 178 (91.3%) reported being accredited with a professional body, 14 (7.2%) reported no such accreditation, and three (1.5%) did not report their status.

Procedures

Considering those who participated at the beginning of teaching workshops, participants were eliminated from the study if they did not provide enough information for replication of the Walfish et al. (2012) study on either the general clinical self-rating or outcome scale or on the same scales for anxious clients. All other responses were included, though missing values were assumed where the response was not interpretable. Any answers

(hours worked, hours of supervision, self-rating) that were given as a range (e.g., 5-7 hours) were averaged.

Measures

This study used a measure similar to Walfish et al.'s (2012) survey[1]. Participants were given an information sheet and were asked for their consent before the survey (either online or as a paper version). The survey included questions related to demographics. Participants were then asked to report clinical details and provide details on their work hours. They next answered questions regarding their experience with general cases. They rated their overall clinical skills on a 0-100 scale, compared to other clinicians with similar qualification (0 = the poorest, 50 = average, 100 = the best). If they worked in a team, they were asked to rate their team's overall clinical skills on the same scale. They then repeated these items for work with anxiety-disordered patients. Next, the clinicians rated (on a 0-100% scale) how many of their own clients: recovered, improved, stayed the same, or deteriorated. Again, this was done twice – once for a general clinical group and once for their work with anxiety-disordered patients. For each of these skill and outcome ratings, a flat distribution was expected.

Finally, participants were asked to complete the Ten-Item Personality Inventory (TIPI) to measure personality characteristics. The TIPI uses seven-point Likert scales to measure extraversion, agreeableness, conscientiousness, emotional stability, and openness to experiences (Gosling, Rentfrow, & Swann, 2003). Other researchers have validated the TIPI (e.g., Jonason, Teicher, & Schmitt, 2011).

Data Analysis

SPSS21 was used for all analyses. Descriptive statistics were calculated for self-ratings, perception of team skills, and outcome ratings. In relation to the first aim, chi-

[1] A copy of the original measure used by Walfish and colleagues (2012) was not made available from the authors when requested

squared analyses were used to determine whether self-reports of skill level deviated from the expected (flat) distribution. The remaining analyses related to the second aim. First, clinical features were assessed using independent-samples t-tests to determine whether being accredited was related to self-ratings and outcome ratings. ANOVAs were conducted comparing professions (clinical psychologists – N = 32; counselling psychologists – N = 15; psychiatric nurses – N = 47; licensed counsellors – N = 20; others – N = 81) on self- and team-ratings and on beliefs regarding outcomes. Then, correlation analyses (Pearson's r) were used to determine associations between personality and the clinicians' skill and outcome ratings. Following the correlations, multiple linear regressions were used to determine the most parsimonious set of personality characteristics that were associated with clinician self-ratings of skill and patient outcomes. Finally, ANOVAs were used to compare the ratings of those clinicians who scored high or low on the TIPI emotional stability scale (> 1 SD above the mean, > 1 SD below the mean, and those in between), to determine whether clinicians' emotions play a particular role in their ratings of therapy outcomes.

Results

Clinicians' Ratings of Their Own and Team Members' Clinical Skills

Table 1 shows the clinicians' mean ratings (0-100) of their own and their teams' general skills, and the same ratings when working specifically with anxiety disorders. Clinicians reported a mean general score of 65.7 (above the expected mean of 50, but below the 80th centile reported by Walfish et al., 2012), and a similar rating of their teams' skills. These scores were also similar to those for working specifically with anxiety disorders.

Table 2 shows the numbers of individuals whose ratings of their own and their teams' skills fell into each decile. For each skill rating, a one-sample chi-squared analysis showed that the distribution of scores deviated significantly from the hypothesised flat distribution, with a strong tendency towards participants seeing themselves and their teams as better than

the average.

Association of clinicians' personality traits with their ratings of skill level. Multiple linear regressions were used to determine the most parsimonious model of how personality traits related to ratings of clinical skill level. Table 3 shows that three personality traits are routinely related to self-rating of skill – positive associations with emotional stability, conscientiousness, and openness. In contrast, only the participants' emotional stability was positively related to their perceptions of team skill for both clinical groups, and their agreeableness was related to the ratings of team skill when working with anxiety.

Relationship between professional accreditation and clinicians' ratings of their own and their teams' skills. The four skill ratings were each compared between clinicians with additional professional accreditation and those without it. Independent-samples t-tests showed no significant differences between those two groups on any of the ratings ($t < 1.40$ in all cases).

Association of profession with self- and team-ratings. There were no differences between the professional groups (outlined above) on self- or team-ratings. Neither ANOVA approached significance ($F < 1.0$ in both cases). Therefore, there was no evidence that any profession saw themselves or their teams as more or less skilful than the others.

Associations between temporal factors and clinicians' ratings. Considering the association of age with skill ratings, there were two reliable correlations. Older clinicians reported higher self-ratings when working with a general population ($r[183] = .263$, $P < .001$) and when working specifically with anxious patients ($r[182] = .228$, $P < .01$). An identical pattern was found regarding how long clinicians had been qualified. The longer a clinician had been qualified, the higher they rated their skills when working with a general case group ($r[185] = .273$, $P < .001$) and with anxious patients ($r[185] = .234$, $P < .001$). No other significant correlations were found for either age ($r < .07$ in all cases) or years qualified ($r <$

± .12 in all cases).

Associations between supervision experience and clinicians' skill ratings. It was hypothesized that the amount of supervision given or received would correlate with clinicians' skill ratings. However, there were no significant association with supervision received, supervision given, or total supervision hours ($r < .115$ in all cases). There were also no significant correlations between hours worked and clinicians' ratings or between hours spent with the client and clinicians' ratings ($r < \pm .170$ in all cases). These findings suggest that supervision (given, received, or total) and time spent with clients or working play no role in clinicians' self-ratings.

Clinicians' Ratings of Clients' Response to Therapy

Table 4 shows the clinicians' reported rates of their clients recovering, improving, staying the same, and deteriorating, for their general clinical population and for their clients with anxiety. There were similar outcomes for each clinical population. Clinicians rated themselves as being successful in achieving recovery in 40-50% of cases, with only 10-15% of cases remaining unchanged, and fewer than 5% reported as showing any deterioration. These findings are broadly comparable to those of Walfish et al. (2012).

Personality traits' relationship with clinicians' perception of therapy outcomes. Table 5 shows the results of multiple linear regression analyses, used to determine the most parsimonious model of personality traits that were associated with levels of each of the perceived patient outcomes. There were associations between specific clinician characteristics (greater conscientiousness, emotional stability and openness) and their perceptions that clients were more likely to recover but less likely to stay the same. More conscientious clinicians believed that fewer of their anxious clients simply improved. Only low clinician conscientiousness was associated with patients being reported to deteriorate.

To determine the specific role of extremes of clinician emotions, three groups (low

emotional stability, normative emotional stability, and high emotional stability) were compared on their reported outcomes using ANOVAs. Table 6 shows that clinicians with lower levels of emotional stability had poorer perceptions of their therapy outcomes than others, though those levels were more akin to those reported in real life clinical settings (e.g., Chilvers et al., 2001; Hansen et al., 2002; Schindler et al., 2011; Westbrook & Kirk, 2005, 2007).

Association of supervision with clinicians' perception of therapy outcomes. It was hypothesized that the amount of supervision (given, received, or total) would correlate with perception of therapy outcome. However, no such correlations were found for supervision received, supervision given, or total supervision ($r < \pm .150$ in all cases). Likewise, there were no significant correlations between hours worked and perceived therapy outcomes, or between time spent with clients and reported therapy outcomes ($r < .150$ in all cases).

The relationship between accreditation and clinicians' perception of therapy outcomes. An independent-samples t-test showed that clinicians with additional accreditation reported higher recovery rates in their general clinical population than clinicians without additional accreditation ($M = 45.9$, $SD = 24.9$ vs $M = 26.8$, $SD = 19.1$; $t(184) = 2.71$, $P = .007$). Similar results were found for clinicians working with anxiety disorders, where clinicians with additional accreditation reported a higher mean recovery rate than those without ($M = 49.3$, $SD = 25.5$ vs $M = 31.5$, $SD = 21.5$; $t(176) = 2.44$, $P = .016$). There was no difference between clinicians with and without additional accreditation on the other potential outcomes ($t < 1.83$ in all cases).

Association of profession with perceived therapy outcomes. There were no differences between the professional groups (outlined above) on ratings of the level of the four types of clinical outcome. None of the ANOVAs approached significance ($F < 1.8$ in all

cases). Therefore, there was no evidence that any profession believed that their clients responded to therapy any differently to the other professions.

Discussion

This study supports the earlier findings of Walfish et al. (2012), showing that clinicians appear to engage in substantial overestimation of their own and their teams' abilities (self-assessment bias), and have unrealistic beliefs regarding client response to therapy. These erroneous beliefs are found regardless of whether clinicians are treating a general group or anxiety sufferers. High self-ratings of clinical skill and levels of client recovery were particularly associated with high levels of the personality characteristics of conscientiousness, emotional stability, and openness. Older, more experienced clinicians saw themselves as better clinicians than younger and less experienced ones However, these distortions were not consistently linked to supervision or accreditation status, and did not differ across professional groups.

Overall, these findings are similar to those of previous research showing that clinicians overestimate their abilities (Brosan et al., 2008; Walfish et al., 2012). However, the level of overestimation in this UK sample was not as high as that in Walfish et al.'s (2012) US clinician group (mean centile = 65 vs 80), suggesting some cultural differences in clinicians' self-perception. Furthermore, this sample included a small number of therapists who saw themselves as below average, which was not the case for Walfish et al. (2012). Comparison of these clinicians' patient outcome ratings with those from the wider literature (e.g., Hansen et al., 2002; Westbrook & Kirk, 2005, 2007) indicate that therapists hold unrealistic beliefs regarding how many of their clients recover or improve, and substantially underestimate how many stay the same or deteriorate.

Taken in combination with Walfish et al.'s (2012) findings, it is evident that psychological therapists overestimate both their individual skill level and their therapy

outcomes relative to their peers. This self-assessment bias is not unique to therapists, but occurs in many domains of human activity (e.g., Anderson et al., 1984). A potential cause of such a bias is the need to maintain a positive self-image. Self-assessment bias might be a manifestation of cognitive dissonance, whereby the individual clinician unconsciously reduces the disparity between their self-concept as a therapist and their treatment outcomes by processing the latter in a self-serving way (e.g., preferentially processing positive outcomes). This pattern reflects the process of confirmatory bias, described by Lilienfeld, Ritschel, Lynn, Cautin, and Latzman (2013). A less likely but still possible alternative is that that therapists are consciously misrepresenting their abilities in order to maintain their self-image or their image for others (e.g., to avoid criticism and enhance social acceptance), thus actively avoiding their own anxiety.

Whether the self-assessment bias has a conscious or unconscious basis, it appears to be more extreme among clinicians with specific personality characteristics – openness, emotional stability, and conscientiousness. This link is concerning, as these are characteristics that are normally seen as positive attributes in a clinician, although there is some evidence to the contrary when examining long-term outcomes, as stated earlier (Heinonen, et al., 2012). An alternative explanation is that therapists with those personality features are actually substantially more effective than clinicians with different personality profiles. Another possibility is that those clinicians with low emotional stability who report poorer outcomes are actually demonstrating depressive realism, and that their estimates are the most accurate. These alternatives need to be explored in future actuarial outcome research, as they would have very different implications regarding the selection and training of therapists.

If clinicians believe that they are superior to most of their peers and that most of their clients recover, they are unlikely to see the need for further development or to use key

techniques or tools. This belief pattern might explain the very low uptake of protocol- and manual-based treatment methods (e.g., Addis & Krasnow, 2000), despite evidence that structured treatments enhance therapy outcomes (Cukrowicz et al., 2011). Unaware of the reality of poor therapy outcomes, clinicians are likely to continue not to address issues that could help to improve their skills and help clients.

This study had a number of limitations. First, this sample was subject to self-selection bias, as only some clinicians chose to participate. More specifically, there is the possibility that the clinicians who chose to take part actually were more skilful that those who did not, making it possible that the distribution of skill level in the current sample is an accurate reflection of their skills, rather than a distortion. Second, the study measured perceptions rather than actual outcomes, and there is a need for future research to determine whether clinicians' perceptions of their own ability and their patients' outcomes are accurate or overinflated. Finally, due to the cross-sectional design, the findings do not establish causality. Future studies extending on these findings could be integrated into training courses or program evaluations, using objective measures of clinical outcomes and examining fidelity to treatment manuals.

The role of clinician characteristics requires further consideration in such research and in clinical practice. While older and more experienced clinicians rated themselves as being more effective, those beliefs are not supported by the evidence that therapists' outcomes do not improve with experience (Brosan et al., 2006) or actually deteriorate post-qualification (Shapiro & Shapiro, 1982). Therefore, clinicians and researchers need to be aware that experience and age do necessarily equate to competence, suggesting that supervision might need to be a career-long process. Further research is also needed to understand the relationship between clinician personality and perceived therapy outcomes. In particular, do therapists who are conscientious, open and emotionally stable actually achieve superior

outcomes in clinical settings, and is low conscientiousness actually related to poorer outcomes? If so, those findings might have implications for the delivery of clinical services, either in terms of who would make effective therapists or how clinicians should be supervised.

Clinicians need to be made aware that there is a divide between perceptions and reality when it comes to therapist skills and outcomes. The findings stress the need for clinicians to use objective measurement of their outcomes, so that they know how effective they and their therapies actually are, rather than relying on their self-beliefs. Supervision that attends to such outcomes could help reduce the gulf between reality and perception, and thus help clinicians to improve their actual skills and outcomes. However, more research on supervision is needed to understand its effects on therapy. Finally, there is a need for a broad culture that stresses a clinical-scientific approach, using evidence-based and evidence-generating practice, to alleviate the problem of confirmation bias.

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Table 1: Clinicians' Ratings of Their Own and Team Members' Work

Rating	Mean	SD	Median	Minimum	Maximum
General client group					
Self-Rating	65.7	14.3	65	10	100
Team-Rating	67.5	15.4	70	0	100
Anxious client group					
Self-Rating	66.9	15.3	70	10	100
Team-Rating	66.9	16.3	70	5	100

Table 2: Deciles for Self- and Team-Ratings

Rating	0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	X^2
General client group											
Self-Rating	1	0	1	5	45	31	37	53	37	10	271.3***
Team-Rating	1	1	0	3	22	14	26	38	10	2	112.6***
Anxious client group											
Self-Rating	1	0	0	6	45	32	33	45	26	4	180.2***
Team-Rating	2	1	0	4	19	18	26	37	5	5	124.7***

*** $P < .001$.

Table 3: Linear Regression of Personality Traits on Self- and Team-Ratings

Dependent Variable	Overall Effect		Independent Variables			
	F	% variance explained		t	P	Beta
General client group						
Self-Rating	12.5***	23.3	Conscientiousness	3.32	.001	.223
			Emotional stability	3.47	.001	.242
			Openness	3.26	.001	.217
Team-Rating	3.36**	9.2	Emotional stability	2.78	.006	.277
Anxious client group						
Self-Rating	16.5***	29.2	Conscientiousness	4.58	.001	.295
			Emotional stability	4.56	.001	.304
			Openness	2.37	.019	.152
Team-Rating	3.50**	9.8	Agreeableness	2.03	.045	.189
			Emotional stability	2.06	.042	.201

** P < .01, *** P < .001.

Table 4: Clinicians' Impressions of Clients' Responses to Therapy

	Mean	SD	Median	Minimum	Maximum
General client group					
Recovery	44.7	25.0	45	0	100
Improve	37.1	20.0	30	0	90
Stay the Same	14.8	12.9	10	0	70
Deteriorate	4.0	5.5	2	0	30
Anxious client group					
Recovery	48.0	25.6	50	0	100
Improve	36.5	20.7	30	0	85
Stay the Same	13.0	12.1	10	0	60
Deteriorate	3.5	4.8	1	0	30

Table 5: Associations Between Clinicians' Perceptions of Therapy Outcome and their Personality Traits

Dependent Variable	Overall Effect		Independent Variable			
	F	% variance explained		t	P	Beta
General client group						
Recovery	7.06***	14.0	Conscientiousness	2.56	.011	.182
			Emotional stability	2.52	.012	.186
			Openness	2.57	.011	.184
Improve	1.22	0.6	-	-	-	-
Stay the Same	9.83***	19.3	Conscientiousness	2.43	.016	-.168
			Emotional stability	2.18	.030	-.156
			Openness	5.11	.001	-.355
Deteriorate	3.82**	7.1	Conscientiousness	3.11	.002	-.232
Anxious client group						
Recovery	7.74***	16.0	Conscientiousness	3.14	.002	.226
			Emotional stability	2.80	.006	.208
			Openness	2.47	.015	.178
Improve	2.58*	4.3	Conscientiousness	2.66	.009	-.206
Stay the Same	9.69***	19.7	Conscientiousness	2.36	.019	-.197
			Emotional stability	2.44	.016	-.176
			Openness	4.63	.001	-.324
Deteriorate	3.73**	7.2	Conscientiousness	3.22	.002	-.247

* P < .05, ** P < .01, *** P < .001.

Table 6: Emotional Stability Associated Beliefs about Therapy Outcomes

Variable	Low ES*	(SD)	Normative ES**	(SD)	High ES***	(SD)	F	P	MC
General client group									
Recovery	23.3	(14.0)	41.7	(24.1)	55.5	(24.8)	8.41	.001	LES=NES<HES
Improve	38.8	(15.1)	39.0	(20.0)	31.4	(19.8)	2.69	.071	-
Stay the Same	31.7	(15.3)	15.8	(13.2)	10.1	(9.02)	9.71	.001	LES>NES>HES
Deteriorate	6.2	(3.2)	4.2	(5.5)	3.1	(5.5)	1.24	.292	-
Anxious client group									
Recovery	27.5	(27.5)	43.6	(43.6)	63.3	(25.2)	13.6	.001	LES=NES<HES
Improve	39.0	(10.2)	39.3	(20.7)	28.3	(19.3)	4.97	.008	NES>HES LES=NES LES=NES
Stay the Same	30.0	(7.91)	14.6	(12.5)	6.4	(6.7)	14.9	.001	LES>NES>HES
Deteriorate	6.00	(4.18)	4.00	(5.13)	2.00	(3.28)	3.61	.029	NES>HES LES=NES LES=NES

* n = 7. ** n = 138. *** n = 50