**Patient Factors that Impact upon Cognitive Behavioural Therapy for Psychosis: Therapists’ Perspectives**

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**Abstract**

**Background:** Randomized controlled trials have established that Cognitive Behavioural Therapy (CBT) is effective in helping people with psychosis, though there is enormous variability in outcome. It isn’t clear what patient factors contribute to good outcomes. In fact, most studies considering client factors have excluded people with psychosis. It is clinicians who are deciding who is likely to benefit from CBT for psychosis (CBTp), though little is understood in terms of their views on who benefits from CBTp. **Aims:** This study investigated clinicians’ views on client characteristics that influence outcome in CBTp. **Method:** A Q-set of 61 client characteristics was developed from a literature search and interviews with clinicians experienced in working with CBT and/or psychosis. 21 participants (familiar with psychosis and CBT through education, profession, practice or knowledge) rated the items based on their importance in effecting a positive outcome, on a forced normal distribution. **Results:** 21 completed Q-sorts yielded four factors, named as: acceptance and application of the cognitive model; attending to the present; secure base; meaningful active collaboration. **Conclusions:** Items regarding therapeutic alliance were highly endorsed throughout all factors. Some empirically-based items were not endorsed, though overall, clinician responses were consistent with prior research.

*Keywords:* CBT; psychosis, Q-methodology; client characteristics; therapist views; suitability

**Introduction**

Although Cognitive Behavioural Therapy for psychosis (CBTp) is recommended for treating schizophrenia ([NICE, 2009](#_ENREF_18)), recent reviews have questioned its effectiveness (Laws et al, 2014). Potential factors that may explain variability in outcome can be categorized into three broad domains - therapist, therapy and patient factors (and of course, some combination and interaction of these). It is essential that models of psychosis are continually revised, techniques are improved and therapists continue to gain expertise. However, it is equally important that the patient’s impact on outcome is not underestimated. Perhaps the most influential examination of patient factors to date within CBT, is the development of the short-term cognitive therapy rating scale (SSCT) (Safran and Segal, 1996). The SSCT comprised nine factors including items such as compatibility with the cognitive model. Collectively these factors predicted 62% of the outcome variance. However, patients with psychosis were excluded.

One recent study ([Myhr et al., 2013](#_ENREF_15)) investigated the predictive value of the SSCT for clients with psychosis, and found that it did not predict outcome as it did with CBT for other disorders, suggesting that the same patient factors that might predict outcome in anxiety and depression may not necessarily predict outcome when working with psychosis. There have been psychosis specific studies that have sought to identify patient factors that have been associated with better outcomes. These have included psychological factors such as cognitive flexibility.

Cognitive Flexibility broadly relates to the ability of an individual to experience doubt and consider things from a different perspective. A number of studies have found it to correlate with better outcomes in CBTp. [Garety, Fowler, and Kuipers (2000](#_ENREF_6)) reported that patients with delusions who had a positive response to the “possibility of being mistaken” achieved a better response to therapy than those with less doubt. Recently, Freeman et al (2013) reported that beliefs about the origin and nature of psychosis have also found to predict engagement in treatment and hence outcome. Those who dropped out had a lower sense of control over their problems and a more biological view of their causes. People who completed the full course of treatment were more likely to attribute the cause of their problems to their own state of mind. ‘Insight’ is the notion that the person recognizes that they are unwell, and that this illness explains their symptoms. It has been associated with better outcomes in CBTp ([Naeem, Kingdon, & Turkington, 2008](#_ENREF_17)), as has a lower delusional conviction level ([Brabban, Tai, & Turkington, 2009](#_ENREF_3)).

Therapeutic alliance is also important in CBTp outcome (as it is in working with other emotional disorders). [Startup, Wilding, and Startup (2006](#_ENREF_22)) found that people who dropped out of CBTp had less agreement with the therapist on tasks and goals, and were less engaged in treatment (see also Dunn & Bentall, 2007). [McGowan, Lavender, and Garety (2005](#_ENREF_12)) reported that where clients did not progress, there was not always a shared goal – which is crucial in forming a therapeutic alliance. Of course, therapeutic alliance not only comprises client factors, but also therapist factors.

Other more fixed client factors predict a better outcome of CBTp are: lower number of recent hospital admissions ([Garety et al., 1997](#_ENREF_7)); lower symptom severity ([Tarrier et al., 1998](#_ENREF_24)); shorter duration of illness ([Drury, Birchwood, Cochrane, & Macmillan, 1996](#_ENREF_4)); female gender ([Brabban et al., 2009](#_ENREF_3)); higher baseline functioning ([Allott et al., 2011](#_ENREF_1)) and younger age ([Morrison, Turkington, et al., 2012](#_ENREF_14)).

Although some quantitative studies have identified patient factors that are associated with outcome on CBTp trials, these studies have tended to be post hoc, utilizing the demographic and psychometric tests that were used in the studies, rather than systematically investigating them as the primary aim. The exception is Myhr et al (2013). However, their replication of the predictive power of the SSCT found it of little value with psychosis.

To date, no studies have systematically sought CBTp therapists’ views. This would seem a natural step given the modest evidence base of CBTp and the limited focus of studies that have investigated client characteristics thus far. What do CBTp therapists believe makes the difference in recovery for patients given their own experiences? Their views are subjective, but important. It is therapists that make the day to day decisions regarding who is likely to benefit from, and be offered, CBTp. Although NICE recommends that CBT is offered to everyone with schizophrenia, only 10% receive a full course of CBT (Schizophrenia Commission, 2012). Clinicians are deciding who is offered therapy whilst experiencing ever increasing pressure on resources, frequently working with a high level of complexity, and within the context of a contentious evidence base. The primary objective of this study was to provide some insight into their decision making by identifying the patient factors they consider most important in effecting the outcome of a course of CBTp. A secondary aim was to identify any areas of discrepancy between clinicians’ subjective views and the research literature. Q methodology has been used in comparable studies seeking the views of clinicians and patients alike, and thus was adopted for the present study.

**Method**

**Participants**

21 participants were recruited from the North East (n=11), and North West of England (n=10). Participants were psychologists, psychiatrists and nurses who were familiar with psychosis and CBT through education (post graduate qualification in CBT), profession (nursing, psychology, psychiatry), practice and experience of working with CBT for psychosis (at least 10 cases); experience working with CBT for anxiety / depression (at least 10 cases). The rationale for having a number inclusion criterion for participants was to ensure that we did not exclude experts in the field, who would not necessarily qualify by formal CBT qualification. For example, one participant had written a popular and widely regarded manual for treating psychosis using CBT, but had not completed a CBT diploma.

Participants had been qualified for a mean of 14.84 years (SD=10.36; range=0.5-30; median=15), with a mean of 10.73 years (SD=6.51; range=1-20; median=11.5) working in psychosis having treated a mean of 67.81 cases (SD=68.42; range=2-200; median=45) using CBTp.

Professional titles comprised: Consultant Clinical Psychologist (5); Clinical Psychologist (5); Professor of Clinical Psychology (2); Nurse Consultant (2); CPN Care Co-ordinator (2); Psychological Therapist (1); Counselling Psychologist (1); Research Clinical Psychologist (1); Team Co-ordinator (1); Consultant Psychiatrist (1).

The sample consisted largely of experienced clinicians who had treated many cases using CBTp, however, five clinicians had only qualified in the past two-and-a-half years. The sample were primarily psychologists and included a number of CBTp authors and researchers.

**The Q set**

The Q-set was developed from a systematic literature search reviewing evidence regarding patient factors that have been associated with outcome (in therapy in general, CBT in particular, and more specifically, CBT for psychosis). To be as inclusive as possible, we included contextual variables that may impact upon patients’ ability to engage in CBTp. Semi structured interviews of clinicians from different therapeutic backgrounds were also conducted to maximize inclusivity at this stage. A preliminary Q-set of 381 items (265 from interviews/discussion, 116 from literature) was reduced through amalgamating similar items, resulting in a final Q-set of 61 items.

**Procedure**

Participants were asked to rank-order the Q-set cards on a forced normal distribution grid according to each item’s relative significance to the other cards, from -5 least significant to +5 most significant. This was done in response to a ‘condition of instruction’, in this case the stem question ‘how significant is [item statement] in effecting a positive outcome in CBTp?’ Participants were advised to initially sort the cards into three piles – most important, least important and those in between – and then position the cards on the grid.

Q methodology examines overall configurations produced by participants that are intercorrelated and factor analysed. Each factor captures a different item configuration which is shared by (and characteristic of) a group of participants (Watts and Stenner, 2005). This is referred to as participants ‘loading’ onto a factor. If there is a consensus on a particular item, i.e. all participants strongly agree or disagree with a particular statement, it is referred to as a ‘consensus item’. Thus Q methodology identifies both differences and consensus views within a group of participants.

**Results**

21 completed Q-sorts were analyzed using PQ Method 2.11 ([Schmolck, 2012](#_ENREF_21)), a specialist software for Q-methodological analysis which conducts a by-person factor analysis. The analysis examined the whole Q-sort for inter-correlations rather than individual items. A Principal Components Analysis (PCA) revealed four un-rotated factors with eigenvalues exceeding 1 and accounting for 67% of the total variance. These factors were rotated using Varimax procedure, which maximizes loadings on only one factor. A level of ±0.55 indicative of a significant loading (p<0.01) was set to minimize confounding and maximize significant loadings ([Watts & Stenner, 2005](#_ENREF_26)).

Table 1 shows that 19/21 participants loaded significantly on at least one factor. Two participants did not load significantly on any factor (P2-1, P2-11) and one participant’s loadings (P2-16) were confounding (loading significantly on factors 1 and 4); these three participants were therefore excluded from the analysis.

* Table 1. About here please

Each factor was named according to its distinguishing items (distinctive to each factor) and characterizing items (rated towards the poles of the distribution).

Numbers reported in brackets indicate the position of the statement in each factor array (+5 indicating that an item was viewed as very important, -5 indicating least importance).

*Consensus items.* Some items did not distinguish between factors but were consistently rated in a similar way by all participants across all factors. Items related to therapeutic alliance (TA) were highly endorsed by all participants throughout all factors.

21. ‘Ability to form therapeutic alliance’ (+4 in factor 1, +4 in factor 2, +5 in factor 3, +3 in factor 4)   
22. ‘Ability to trust therapist’ (+5, +3, +5, +4)

Descriptions of the four factors can be considered to sit within the context of good TA. Furthermore, some consensus items were consistently rated towards the least important end of the distribution across all factors:

16. ‘Little or no family history of mental health problems’ (-5, -4, -5, -5)   
17. ‘Being female’ (-5, -5, -3, -4)   
32. ‘Older age of onset’ (-5, -5, -4, -4)   
48. ‘Being of above average intelligence’ (-4, -4, -5, -5)

*Factor interpretation*

*Factor 1: Acceptance and Application of the Cognitive Model****.***Nine participants loaded positively on this factor, explaining 29% of the total variance. Respondents loading on to this factor reported an attribution of a psychological cause of psychosis, acceptance of the cognitive model as an explanatory framework, and the ability to undertake key tasks of CBTp as being most important in effecting a positive outcome. 17 of 19 statements related to key tasks of CBTp were rated towards the most important end of distribution – and the four most highly-rated distinguishing items all relate to key tasks.

Key distinguishing statements were:

60. Ability to think about & reflect upon episodes of psychosis (+5)  
56. Ability to recognise and report thoughts (+4)  
57. Ability to realise / accept that thoughts are not facts (+3)  
49. Acceptance of cognitive model as rationale for understanding illness (+3)

The factor was further defined by the following characterizing statements:

4. Motivation to change (+5)  
51. Ability to meaningfully identify problems and engage with realistic goals (+4)  
26. Attribution of psychosis to a psychological cause (+4)

*Factor 2: Attending to the Present.* Five participants loaded on this factor, explaining 15% of the variance. Respondents endorsedclients having the ability to be present in the here and now as most important in effecting a positive outcome. They valued the ability to engage actively in therapy to get the maximum benefit, through having adequate sleep to concentrate and remember the content of the current and previous sessions, attending sessions, having good enough cognitive functioning to engage with tasks, being motivated and the minimal impact of thought disorder.

This factor was defined by one distinguishing factor:

55. Adequate concentration and memory (+5)

Characterizing statements that further defined the factor included:

14. Having enough sleep (+5)  
1. Regular attendance at sessions (+5)  
51. Ability to meaningfully identify problems and engage with realistic goals (+4)  
43. Having adequate cognitive functioning to engage with the key tasks (+4)  
4. Motivation to change (+4)

*Factor 3: Secure Base****.*** Two participants loaded on this factor, explaining 9% of the variance. Respondents endorsed clients having a secure base to be most important in outcome. This can provide the foundation for trust and formation of a Therapeutic Alliance. This was seen to be facilitated by having ‘good enough’ attachment, being on the appropriate medication level and having not been ill for so long that it affects ability to engage. A secure base is also affected by the presence of good quality relationships outside therapy.

Distinguishing items in this factor included:

23. History of secure attachment (+5)  
38. Shorter duration of untreated illness (+4)  
12. Compliant with appropriate antipsychotic medication at an appropriate level (+3)  
3. Higher general and social functioning e.g. engaged in employment, activities, college etc. (+3)  
43. Having adequate cognitive functioning to engage with the key tasks (-4)  
7. Absence of or minimal risk factors, e.g. suicidal thoughts, self-harm, offending behaviour, risk to others (-5)

The factor was further defined by the following characterizing statements:

22. Ability to trust therapist (+5)  
21. Ability to form therapeutic alliance (+5)  
27. Optimism about potential success of therapy (+4)  
14. Having enough sleep (+4)  
8. Presence of good quality relationship (family, partner, friends) (+4)

*Factor 4: Meaningful Active Collaboration.* Two participants loaded on this factor, explaining 14% of the variance. Respondents reported that clients collaborating and endorsing the formulation, and having optimism and the ability to manage new experience/information as most important in effecting a positive outcome.

Distinguishing statements in this factor included:

54. Ability to tolerate new experiences/information/change (+5)  
29. Client collaborating to produce the formulation (+5)

Characterizing statements that further defined the factor included:

27. Optimism about the potential success of therapy (+5)   
28. Client endorsing the formulation (+4)  
22. Ability to trust therapist (+4)  
9. Support of others through therapy (+4)  
8. Presence of good quality relationships (family, partner, friends) (+4)

**Discussion**

This study employed Q-methodology to investigate what clinicians’ views on patient factors that affect a positive outcome in CBTp. The analysis revealed a consistent theme across the sample, namely that all participants strongly endorsed items relating to alliance formation. Four factors emerged which distinguished participants. These were named as: acceptance of the cognitive model and capacity to do CBTp, attending to the present, secure base, and meaningful active collaboration.

A major finding is that the items related to alliance formation were consistently rated towards the ‘most important’ end of the distribution throughout all factors. This indicates that CBT therapists highly value the therapeutic relationship, which is not always the perception. On the flipside, clinicians consistently rated historical and demographic factors the least. This is of particular note in regard to ‘gender’, which has been found to be predictive of outcome. It may be that this does not reflect the clinicians’ experiences, or it may be that the therapists are exhibiting a bias towards factors that they can influence.

It is unsurprising that cognitive therapists load so heavily onto a factor that emphasizes the acceptance of the model and patients’ capacity to undertake CBTp tasks. It is self-evident that patients with psychosis, who do not accept the cognitive rationale and struggle with the methods employed in CBTp, will prove a challenge to help. It is also consistent with the established literature that highlights cognitive flexibility and lower delusional conviction levels as helpful foundations for CBTp. Factor two was characterized by cognitive functioning – patients ability to concentrate, understand and retain information between sessions. This factor is consistent with the cognitive features associated with psychosis, such as thought disorder, cognitive biases, and the cognitive impact of sleep deprivation. These form part of wider factors such as baseline functioning and symptom severity that have been found to impact upon the likelihood of benefitting from CBTp. The items in factor three do overlap with therapeutic alliance, but also relate to patients’ stability outside of the therapy setting and risk. Again this is consistent with existing research: both lower number of recent admissions and lower symptoms severity have been linked to better outcomes. The final factor encompasses patients ability to actively collaborate, overlapping somewhat with factor one, but also included ‘readiness to change’.

This is the first investigation of clinicians’ views on client factors that influence outcome of CBTp. It would be useful to further examine how clinicians have come to their conclusions, and their knowledge and views on the existing empirical studies in this area. Also, what influence do factors such as professional backgrounds, views on recovery, training, supervisory and clinical experiences play in their decision making? Although the literature has generated individual factors like gender, it has not informed us about why these factors are important. What is it about being female that helps one increase the likelihood of a better outcome from CBTp? Future research could use therapist views to examine such questions. This may lead to hypotheses generation and even the development of a CBTp model of readiness for change.

The biases of investigating subjective opinion are a general limitation of this work. Clinicians’ views remain just that, and do not inform the actual predictive ability of each factor. Of course it is also important to acknowledge that wider factors impact on outcome, such as therapist and therapy factors. The authors accept that their naming of the 4 factors was entirely subjective. The naming of factors is an aspect of Q sort methodology that is designed to summarize the factors. It is accepted that other perspectives on the items may be equally valid. Similarly, there are different perspectives on what constitutes a ‘client factor’, and some characteristics included in the study could be categorized as social or environmental. We have used a broader definition in order to allow clinicians greater choice in expressing their views. There was also considerable variation in experience and qualification of the participants. Although this ensured that clinicians were not excluded on the basis of one factor alone, arguably it reduces the credibility of the therapist views.

A further limitation lies in the weighting of the Q-set items and striking a balance between specificity and over-inclusiveness. Consequently, some categories may be over- or under-represented, with some ideas overly amalgamated and others too specific. This may go some way to explain why the clinicians’ views are mostly consistent with the existing literature, though do not entirely overlap, as the specificity of concepts varies between this study and others.

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**Table 1.** Rotated factor matrix showing significant factor loadings

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Participant** | **Factor 1** | **Factor 2** | **Factor 3** | **Factor 4** |
| P2-1 | 0.3690 | 0.2919 | 0.0186 | 0.4689 |
| P2-2 | 0.3140 | **0.6572\*** | 0.1414 | 0.1659 |
| P2-3 | 0.4843 | 0.3547 | 0.0650 | **0.6076\*** |
| P2-4 | **0.7082\*** | 0.3452 | -0.0104 | 0.0569 |
| P2-5 | **0.6781\*** | 0.0931 | 0.1746 | 0.3783 |
| P2-6 | 0.5423 | **0.5905\*** | 0.1031 | 0.2158 |
| P2-7 | 0.3675 | **0.5658\*** | 0.1900 | 0.3830 |
| P2-8 | 0.4828 | 0.0521 | **0.6983\*** | 0.1215 |
| P2-9 | **0.6045\*** | 0.3972 | 0.1668 | 0.1624 |
| P2-10 | 0.2828 | **0.5562\*** | 0.0183 | 0.5398 |
| P2-11 | 0.5107 | 0.1523 | -0.2113 | 0.4839 |
| P2-12 | 0.0040 | 0.1473 | **0.8495\*** | 0.0985 |
| P2-13 | -0.0176 | **0.7944\*** | 0.0299 | 0.1709 |
| P2-14 | 0.0007 | 0.2465 | 0.3233 | **0.7571\*** |
| P2-15 | **0.7315\*** | 0.3641 | 0.1114 | 0.1865 |
| P2-16 | **0.6179** | 0.1750 | 0.1697 | **0.5680** |
| P2-17 | **0.6411\*** | 0.3508 | 0.2599 | 0.1555 |
| P2-18 | **0.5880\*** | 0.0741 | 0.4121 | 0.4677 |
| P2-19 | **0.7099\*** | 0.0245 | 0.0588 | 0.3376 |
| P2-20 | **0.7837\*** | 0.0178 | 0.1566 | 0.3606 |
| P2-21 | **0.7430\*** | 0.4778 | 0.0996 | -0.0571 |
| **% variance explained** | 29 | 15 | 9 | 14 |

Note: Significant loadings in bold. Asterisk denotes loadings that define the factor (nb not all significant loadings define the factor)