View metadata, citation and similar papers at core.ac.uk
brought to you by CORE
provided by UCL Discovery

Introduction

Over the years, psychotherapy research has evolved towards an understanding of the factors that lead to patient improvement (Lambert, 2013). Researchers have increasingly recognised that alongside assessing the outcome or effectiveness of various types of treatments, it is important to understand the process of psychotherapy, so that we can not only understand *what* works, but also *how* psychotherapy works (Midgley, 2009).

Previous research in psychotherapy with adults has emphasised different aspects of the psychotherapy process and their contribution to outcome, but estimates of the variance accounted for by them vary considerably (Gazzillo et al., 2017). For example, estimates of the contribution of therapists' techniques to outcome varies from 6-9% (Wampold, 2001) to 15% (Lambert, 1992; Lambert & Barley, 2002), patient factors from 30% (Norcross & Lambert, 2011) to 40% (Lambert, 1992; Lambert & Barley, 2002), and common factors (such as working alliance) from 19% (Wampold, 2001) to 30% (Lambert, 1992; Lambert & Barley, 2002).

Some elements of the psychotherapy process have emerged as significant from process-outcome research, although without consensus among researchers about their role or importance for the treatment outcomes. Some researchers have emphasised the importance of the *therapeutic alliance*, including the degree to which the therapy relationship is collaborative (Kazdin, 2007); whilst others have emphasised that change in cognitive distortions may be the primary mechanism through which depressive symptoms are reduced (N. K. Kaufman et al., 2005; Shirk, Crisostomo, Jungbluth, & Gudmundsen, 2013; Weersing, Rozenman, & Gonzalez, 2009). A third element that has been proposed as important for both young people and adults, is the

patient's contribution to the therapy, with some suggesting that "the quality of the patient's participation in therapy appears to emerge as the most important determinant of outcome" (Orlinsky, Rønnestad, & Willutzki, 2004, p. 324). In the treatment of children and adolescents, Shirk and Karver (2006) proposed that children or adolescents' involvement is the most fundamental process issue because marginal participation or early attrition are likely responsible for diluting treatment dose, which in turn is likely to weaken treatment efficacy.

It is important to highlight that the focus of the research mentioned so far has been on single elements of the therapeutic process. However, given the complexity of the therapy process, there is evidence that an interaction between these factors might change the associations with outcome. For example therapists' techniques have been able to predict change in interaction with certain patient qualities (Jones, Cumming, & Horowitz, 1988) and specific interventions strongly define and shape the patient-therapist relationship, indicating the mutual influence between therapists' techniques and the development of the therapeutic relationship (Beutler, 2002). Thus, some researchers have argued that there is a need to use methodologies that integrate therapist, patient, procedural, and relationship factors in psychotherapy research (Beutler et al., 2004).

The Psychotherapy Q-Set (PQS; Jones, 1985) is a process measure that has been used for the study of psychotherapy process, capturing the contribution of the patient, the therapist and their interaction. More recently, a "family" of related measures have been developed to examine the therapy process with younger age groups: the Child Psychotherapy Q-set (CPQ; Schneider & Jones, 2004) for psychotherapy process with children aged 4-11, and the newly developed Adolescent Psychotherapy Q-set (APQ; Authors, year) for the psychotherapy process with young

people aged 12 to 18. Their main advantage is that they use a holistic approach and examine how all the variables within the therapy process relate to each other (Watts & Stenner, 2012), without limiting the research to a single dimension of presumed importance, such as 'therapeutic alliance' or 'interpretation of the transference' (Jones et al., 1988).

One of the lines of research conducted with the PQS and the CPQ has been "interaction structures", which is a concept coined by Jones (2000) to designate the repetitive patterns of interaction between a therapist and a patient across treatment sessions, whose change leads to changes in the patient's psychological structures. In psychotherapy with adults, Jones and colleagues' research has shown that changes in patterns of interaction relate to positive treatment outcome in both the patients' psychological structure and symptom improvement (Jones, 2000; Smith-Hansen, Levy, Seybert, Erhardt, & Ablon, 2012). In psychotherapy with children, the interaction structures have been explored in case studies of children with emerging borderline personality disorder (Goodman, 2015) and a child diagnosed with Asperger's disorder over a period of two years, working with two different therapists (Goodman & Athey-Lloyd, 2011). In the latter, results showed that there were 4 interaction structures that differed between therapists and over time within each treatment, indicating that interaction structures may be specific to a particular therapeutic dyad, and evolve during different phases of therapy. Interaction structures have also been explored in children diagnosed with Borderline Personality Disorder.

However, to date interaction structures have not been examined in the treatment of adolescents. Using a recently developed measure, the Adolescent Psychotherapy Q-Set (Authors, year), this study aimed to identify core interaction structures between depressed adolescents and their therapists in psychotherapy

sessions within and across two widely-used therapeutic modalities: CBT and Short-term Psychoanalytic Psychotherapy (STPP).

Method

All the audio-recorded psychotherapy sessions used for this study were provided by the IMPACT study (Improving Mood with Psychoanalytic and Cognitive Therapies; Goodyer et al., 2011, 2017). The IMPACT study was a multicentre randomized controlled trial that assessed the effectiveness of two therapeutic interventions (STPP and CBT) compared to a brief psychosocial intervention [BPI]) for adolescents with moderate to severe depression in three UK regions.

STPP followed a treatment model consisting of 28 individual sessions plus 7 separate parent sessions provided over 28 weeks. The model integrates psychoanalytic models, based on close observation of the therapeutic relationship itself, with modern attachment theory and the concepts of internal working models (Cregeen, Hughes, Midgley, Rhode, & Rustin, 2016). The CBT treatment, on the other hand, was designed to be up to 20 individual sessions provided over 30 weeks and involved a process of collaborative inquiry into the links between feelings, thoughts, and behaviours, an identification and challenge of negative automatic thoughts, and a development of relapse and prevention strategies (IMPACT study CBT Sub-group, 2010).

The main study identified no significant clinical- or cost-effectiveness differences between the three treatments, with approximately 78% of adolescents across the whole study no longer meeting diagnostic thresholds for depression approximately one year after the end of treatment (for further details, see Goodyer et al., 2017).

Sample size

For this study, a total of 70 audio-recorded psychotherapy sessions were sampled from the IMPACT study. All available IMPACT sessions were labelled with their therapeutic modality (CBT or STPP, as sessions from the BPI arm were not included in this study) and treatment stage ("early" and "middle/late" stages according to the criteria established by the IMPACT team). In order to account for both factors four groups of sessions were constructed (early/mid STPP sessions; early/mid CBT sessions), and a random but equal selection of sessions from within those four groups was conducted. The final sample included 35 sessions from each therapeutic modality, 34 of which were from an early stage and 36 from a middle/late stage.

A sample of 70 sessions was considered adequate for a 100-item Q-set because data were analysed with cluster analysis *of the sessions*. This analysis followed Q-methodology principles, which considers that the ratio of participants to variables should be of 1:2 (Kline, 1994). Hence, the sample size was bigger than the minimum needed.

Participants

All the audio-recordings of psychotherapy sessions were from young people aged 12-18 who took part in the IMPACT study, all of who met criteria for DSM-IV Major Depressive Disorder as assessed by the Kiddie-Schedule for Affective Disorder and Schizophrenia (J. Kaufman et al., 1997). One recorded session per patient was randomly selected, excluding the first and last sessions of therapy because it is not expected to find the typical therapeutic process in either of those sessions. In addition,

as the APQ was not designed to capture the therapy process in groups or family sessions, recordings in which the parent was present were also excluded.

CBT recordings ranged from 22 to 94 minutes (*M*=51.46, *SD*=15.19), and STPP recordings ranged from 22 to 54 minutes (*M*=44.63, *SD*=7.96). All recordings were from entire sessions and not segments. Hence, differences in length had to do with the duration of the sessions themselves (e.g., when the young person arrived late to the session).

Among the cases sampled, young people in CBT treatment received between 2 and 24 sessions (*M*=11.85, *SD*=6.01), and in STPP received between 6 and 29 sessions (*M*=18.55, *SD*=7.95). The 70 cases were treated by 45 therapists (24 STPP and 21 CBT): 29 treated only one patient, 12 treated two patients, three treated 3 patients, and one treated five patients. Regarding gender, 37 therapists were women. The IMPACT study's treatment manuals for each therapeutic approach were followed by therapists (Cregeen et al., 2016; IMPACT study CBT Sub-group, 2010), and treatment fidelity and differentiation were established (Goodyer et al., 2017).

The mean age was 15.9 (*SD*=1.51) with a range of 11.8 to 17.9 years. The majority of the participating young people were girls (49 or 70%), generally reflecting the overall gender of participants in the IMPACT study overall. For more details on sampling strategy, sample selection, and the characteristics of sampled recordings, participating clinicians and participating young people please refer to Authors (year).

Ethical Considerations

Ethical approval was granted by the Cambridgeshire 2 Research Ethics Committee (reference 09/H0308/137) and local NHS provider trusts, and all patients and their parents gave written informed consent (Goodyer et al., 2011, 2017). Confidentiality

and security of the material was ensured by several means: recording were encrypted (http://www.truecrypt.org/), raters only accessed the sessions they had to code, and no identifying information about the therapist or the young people was provided (Auhtors, year).

Measures

The Adolescent Psychotherapy Q-Set (APQ)

The APQ (Authors, year) is an adaptation of the PQS (Jones, 1985) and the CPQ (Schneider & Jones, 2004). It aims to capture what is *characteristic of the psychotherapy process of adolescents aged between 12 and 18 with their therapists*. Like those instruments, the APQ is a Q-set composed of 100 items that describe three aspects of a psychotherapeutic process: (1) the *young person's* feelings, experience, behaviour, and attitudes (*n* = 40; e.g. item 8: "Young person expresses feelings of vulnerability"); (2) the *therapist's* attitudes and actions (*n* = 30; e.g. item 33: "Therapist adopts a psychoeducational stance"); and (3) the nature of the *interaction* of the dyad (*n* = 30; e.g. item 38: "Therapist and young person demonstrate a shared understanding when referring to events or feelings"). A coding manual details instructions for the rater and provides descriptions and examples for each of the items, in order to ensure reliability.

After studying the manual, raters order the 100 statements into a forced distribution of nine categories: one end contains what was *more uncharacteristic* of the session and the other end what was *most characteristic* of the session. This can be done using printed cards or a specially designed website (http://www.homepages.ucl.ac.uk/~ucjtaca/). This procedure forces the raters to make

multiple evaluations among the items, and comparisons between them, avoiding halo effects and response sets (Block, 1961).

The APQ has been shown to have adequate levels of interrater reliability (Authors, year). It has also shown good convergent and discriminant validity with a widely-used measure of therapist technique and with a widely-used measure of therapeutic alliance (Author, year).

In order to assess the level of consistency across independent raters, 33 recording (47% of the total sampled recording) were double coded by one of the authors (author's initials) and one of six child and adolescent psychotherapists. The rest of the sessions (*n*=37) were coded only by the first author.

Interrater reliability (ICC) of the double-coded sessions was conducted between each pair of the 33 sessions using two-way random consistency model (Shrout & Fleiss, 1979). CBT sessions had a mean ICC of .73 (ranging from .65 to .81), and STPP sessions a mean of .72 (ranging from .44 to .88). As ICC levels were good and not all sessions were double-coded, for the current study only the first author's ratings were used.

Training of raters

APQ training was conducted over the course of two months, and six child and adolescent psychotherapists were trained. A total of 10 IMPACT sessions were coded during the training. Raters completed the ratings with ongoing monitoring and feedback to avoid rater drift. All raters achieved an inter-rater reliability of .7 or above.

Mood and Feelings Questionnaire (MFQ)

The MFQ was developed by Angold, Costello, Pickles & Winder (1987) and is

composed of 33 items scored on a 4-point Likert Scale (always=2, mostly=2, sometimes=1, never=0). It has demonstrated construct validity (Sund, Larsson, & Wichstrøm, 2001), high internal consistency (Wood, Kroll, & Moore, 1995) and good discriminant validity for detecting an episode of depression in adolescents (Kent, Vostanis, & Feehan, 1997).

Data analysis

The 70 sessions coded with the APQ were analysed with cluster analysis because it allows the organization of observed data (in this case Q-sets) into meaningful groups, and maximizes the similarity of cases within each cluster while maximizing the dissimilarity between groups (Burns & Burns, 2008). Unlike factor analysis, which groups variables based on the covariance matrix and assumes that those groups of variables share an underlying construct, cluster analysis compares the overall response profile and groups cases according to how similar or different those profiles are.

The clustering procedure chosen was *hierarchical analysis* because the number of observations was 70, they were all measured in the same scale (1 to 9), and there was no a priori knowledge of the number of clusters. The clustering algorithm chosen was *Ward's method* because it is the most commonly used (Burns & Burns, 2008), similarly sized clusters were expected (Mooi & Sarstedt, 2011), and there were no outliers in the dataset (all the Q-sets have scores that go from 1 to 9). Finally, *squared Euclidean distance* was chosen to measure the similarity measures because all the variables were continuous. Stability of the results was tested by repeating the analysis with different clustering algorithms and measures of similarities, all of which provided similar results.

The MFQ scores at baseline for the young people of the three clusters were compared using Kruskal Wallis, which is the non-parametric test equivalent to the Analysis of Variance (ANOVA). This analysis was used because of the small sample size of the clusters.

Results

The correlation matrix of the sessions showed that there were no correlations above .80, and therefore there was no collinearity between sessions and all were included in the subsequent analyses.

The optimum number of clusters was determined both by looking at the dendogram and by examining the results for a range of solutions. It was determined that a three-cluster presented the most parsimonious analysis of the data, and so is the one presented here. After the sessions were matched with their clusters, the mean of each item for each cluster was calculated.

Cluster 1: "Strong working relationship between an emotionally involved young person and a therapist who invites the young person to reflect on experiences and develop self-understanding"

The first cluster was composed of 36 sessions, with 30 STPP and 6 CBT sessions, and half from early stage and half from middle/late stage divided evenly across treatment modalities. The sessions were conducted by 28 different therapists. The internal consistency of this cluster was excellent, with a Cronbach's α of .94. The 10 most and least characteristic items are presented in Table 1.

Sessions in this cluster were characterised by a strong working relationship between the therapist and the patient. On the one hand, the patients gave the

impression of collaborating with the session because they provided or elaborated topics (15: 2.53)[1], went along with the therapist's attempts to examine thoughts, reactions or motivations related to problems (58: 2.53), took on board the therapist's remarks (42: 2.67), and gave the impression of being committed to the work of the therapy (73: 6.17). On the other hand, the therapists worked with the young people to make sense of their experience (9: 7.69), helped them think about their experience from a different perspective (80: 6.97), and assisted them identify a recurrent pattern in their way of dealing with emotions and in their behaviour (60: 7.44, 62: 6.33).

A second important characteristic of these sessions was that patients not only discussed their interpersonal relationships (63: 7.69), but also were able to describe the emotional qualities of those interactions (6: 7.03), and appeared to be emotionally involved with the material (53: 3.5). Young people expressed a lack of agency (28: 3.36), together with feelings of vulnerability (8: 6.47), such as feeling unfairly treated, rejected, or abandoned by others (55: 6.28, 41: 6.22, respectively). When faced with those strong emotions therapists were not directly reassuring (66: 3.69) but focused on the relationship between young people and them (98: 7). Therapists, nonetheless, may have helped the patients to express those feelings by drawing attention to what seemed to be regarded by the young people as a difficult or unacceptable feeling (50: 6.61), by encouraging a reflection on internal states and affects (97: 8.14), and by asking questions (31: 7.11) without actively structuring the session (17: 4.44). These therapists also made some links between the young person's experience and his or her situations of the past (92: 5.5), some links between the therapeutic relationship and

[1] This notation indicates that item 15 had a mean of 2.53 in the corresponding cluster.

other relationships (100: 5.69), and focused on the discussion of breaks and/or interruptions of the therapy process (75: 6.03).

Cluster 2: "Strong working relationship between an emotionally engaged and collaborative young person working with a therapist who actively structured the session to provide space for learning"

The second cluster was composed of 25 sessions, all of which were from CBT treatments and 12 from an early stage. The sessions were conducted by 19 therapists. The internal consistency of this cluster was excellent (Cronbach's α = .96). Table 2 presents the most and least characteristic items for this cluster.

Similarly to Cluster 1, this cluster was also characterised by a strong working relationship between therapists and young people. In this cluster young people seemed to feel understood by their therapists (14: 2.28), appeared to be "good" collaborative patients (20: 2.84, 15: 2.64, respectively), who did not exert control over the interaction with the therapists (87: 2.28), nor rejected the therapists' comments (42: 2.16), nor resisted their attempts to explore thoughts, reactions, or motivations related to problems (58: 2.28). Also similar was that therapists helped their patients to identify a recurrent pattern in their way of dealing with emotions and in their behaviour (60: 7.12, 62: 6.88), helped them to make sense of their experience and think about it from a different perspective (9: 7.48, 80: 6.96, respectively), and encouraged reflection on internal states and affects (97: 8.24).

What was different, though, was the way they achieved the above. The therapists in this cluster actively structured the sessions and asked questions (17: 8, 31: 8.12), they challenged young people's views (99: 7.04), and encouraged them to discuss the assumptions and ideas underlying their experience (68: 7.12). In addition,

therapists actively encouraged young people to reflect on their symptoms (39: 7.16), provided psycho-education (33: 7), and discussed specific activities or tasks for the young people to attempt outside of session, which mostly included homework (49: 6.96). Young people in this cluster also discussed and explored their current interpersonal relationships (63: 7.36), and described the emotional qualities of those interactions (6: 6.88). However, unlike Cluster 1, young people in this cluster appeared to blame themselves for their difficulties (34: 3.24).

Finally, therapists in this cluster did not pay attention to young people's feelings about breaks, interruptions, or endings in therapy (75: 3). Eight out of these 25 sessions ended with the therapist announcing to the young person that they were going to have a break before the next session, with the therapist not exploring what this meant emotionally for the young person.

Cluster 3: "Difficult working relationship between a non-engaged young person and a therapist working hard to make sense of the young person's experiences, but without making much progress"

The third cluster was composed of 9 sessions; 4 CBT (2 from an early stage) and 5 STPP (2 from an early stage). The sessions were conducted by 8 therapists; three of them were therapists of only one session and it was in this cluster, one of them was the therapist of two different sessions and they both were in this cluster. The other four therapists had more than one session coded, and only one session in this cluster. The internal consistency of this cluster was good (Cronbach's α = .86). The 10 most and least characteristic items are presented in Table 3.

Unlike the two previous clusters, the sessions that composed this one did not show a good working relationship between therapists and patients. Therapists in this cluster persistently asked questions (31: 8.22), actively structured the sessions (17:

7.22), encouraged young people's reflection on internal states and affects (97: 7.22), and drew attention to the young person's feelings (50: 6.44). However, young people did not convey the sense of engaging with the therapists' attempts, especially regarding the exploration of loss (19: 3.22), and remained silent (12: 6.33). As a result, the interaction appeared grave, austere, or sombre (74: 2.78), and there seemed to be a lack of shared understanding between therapists and patients (38: 2) demonstrated in the therapists' efforts to clarify the meaning of young people's communication by restating, rephrasing, and repeating what the patients said (65: 6.89).

Patients gave the impression of not being engaged with the work of therapy (73: 2.33) and demonstrated this by not initiating or elaborating topics (15: 8.22), by resisting the therapists' attempts to explore their difficulties (58: 7.78), by being provocative and testing the limits of the relationship (20: 6.33), and by actively not seeking the therapists' approval, affection or sympathy, e.g. by pushing therapists away verbally (78: 2). Their disengagement was also evidenced in that they seemed distant from their feelings (53: 7.44), spoke in a monotone or affectless manner (40: 2.89), seemed not to be animated or excited (13: 3.44), and presented themselves as rigid, stilted, or repetitive (72: 1.67).

Depression at baseline

Although depression scores at baseline were lower for young people in Cluster 3, Kruskal-Wallis results showed no significant difference between the three clusters (Kruskal-Wallis chi-squared = 1.325, df = 2, $p = 0.516$). Descriptive statistics are shown in Table 4.

Discussion

This study aimed to explore the interaction structures between depressed adolescents and their therapists. Results provided evidence for two main clusters of sessions that were primarily related to the two therapeutic approaches respectively (STPP and CBT), and one smaller cluster that included sessions from both therapeutic approaches.

The first noteworthy finding is that the first two main clusters differentiated between STPP and CBT therapies. Even though cluster analysis allowed for a mixed composition of sessions, most of the sessions of Cluster 1 were STPP sessions and all of the sessions of Cluster 2 were CBT sessions. In both these main clusters the young person appeared to be fully engaged with the therapy, while therapists were using key techniques associated more with either psychoanalytic (Cluster 1) and cognitive-behavioural therapy techniques (Cluster 2), as set out by the respective treatment manuals. For example, in Cluster 1 therapists focused on the relationship between young people and them (98: 7 v/s 4.2), and paid attention to the young people's feelings about breaks, interruptions or endings in therapy (75: 6.03 v/s 3), whilst therapists in Cluster 2 actively structured the sessions (17: 8 v/s 4.4), and encouraged young people to reflect on symptoms (39: 7.16 v/s 4.72). These results appear to mirror what Jones and Pulos (1993) found when studying the psychotherapy process of CBT and psychodynamic therapies with adults, in that in their study the psychodynamic therapists encouraged affective expression and experience whilst the CBT therapists encouraged control of negative emotions through the use of rational thought, as a means of challenging negative cognitions. The discussion of interpersonal relationships was present in both clusters, in line with previous research that suggests that interpersonal conflicts are common amongst depressed adolescents

and that they might be a consequence or a precipitate of depression (Jacobson & Mufson, 2010).

Despite the above-mentioned differentiation between Cluster 1 and 2 which was made based on a cluster analysis of the 100 items, it is noteworthy that there was an overlap of 6 out of the 10 most characteristic items and 8 out of the 10 least characteristic items between these two clusters. This result demonstrates that even though each cluster had its unique and distinctive features, they also shared features that might be common to most therapeutic work with depressed young people (e.g. Item 9: “Therapist works with young person to try to make sense of experience”; item 58: “Young person resists therapist’s attempts to explore thoughts, reactions, or motivations related to problems”). These results are in line with what Ablon & Jones (1998, 1999) found when studying the psychotherapy process of adults. They noted that items describing therapists’ stance and techniques captured important differences between the CBT and Brief Interpersonal Therapy (BIT) ; however, they also found a relatively high level of overlap between the two therapeutic modalities (Ablon & Jones, 1999). However in contrast to the Ablon and Jones (1998) study, in this studythere were no STPP sessions in cluster 2, which had stronger features of CBT; whereas there were a small number of CBT sessions in cluster 1, which had stronger features of a psychodynamic approach. This suggests that some CBT therapists, even when the young person was engaged in therapy, perhaps drew on a wider range of techniques, including some more traditionally associated with a psychodynamic tradition; whereas STPP therapists stuck more closely to a 'pure' psychodynamic approach.

The area where there was convergence between interaction structures in STPP and CBT sessions was the third cluster, which included nine sessions (12.85% of the

total number of sessions rated). Sessions in this cluster, which were fairly evenly divided between STPP and CBT, were characterised by a silent, emotionally distant young person, with an active therapist who tried but failed to engage the young person in the therapy process. It could be argued that this third cluster supports the idea that patients' ways of engaging have a big influence in the process of psychotherapy in line with previous studies both with young people (Shirk & Karver, 2006) and adults (Clarkin & Levy, 2004; Wampold, Hollon, & Hill, 2011). In other words, STPP and CBT therapists behaved in a similar way when working with these disengaged patients (e.g. they actively structured the sessions, asked many questions, and tried to bring up material from previous sessions in an attempt to invite the young person to talk), and the therapy process was very similar. It may be that, faced by un-responsive adolescents, both STPP and CBT therapists are pulled into a type of interaction in which they become more active and try to actively draw out the young person. This shift in approach was not explicitly advocated in either the CBT or STPP treatment manuals, so clinically it may be important to either actively advocate for adapting treatment approach when faced by non-engaged patients (if this interaction structure is found in future research to be associated with better outcomes), or else help clinicians become aware when the therapist is being pulled into specific types of interaction structures, that depart from the therapeutic model, and may be associated with poorer outcomes.

Another way of understanding the interaction structure in Cluster 3 may be by considering the influence on the treatment of the severity of young people's depression at intake (Weersing & Brent, 2010). The young people in the cluster 3 sessions scored more highly on items related to in-session expression of depression

(e.g. Item 91, ´Young person discusses behaviours or preoccupations that cause distress or risk'; Cluster 1: 4.58, Cluster 2: 4.76 and Cluster 3: 6.44). Hence, it might be that the therapists' perceptions of the level of depression in their patients influenced how therapists behaved. As previous research with adults has shown, therapists find it more difficult to apply modality-specific interventions when they perceive the patient as having increased painful emotions (Coombs et al., 2002) and effective therapists use different techniques with less and more disturbed patients based on their assessment of the patient's strengths and weaknesses (Jones et al., 1988).

Although efforts were made to include sessions from different treatment stages, it was surprising to find that each of the resulting clusters included almost an equal number of sessions from the early and middle/late stages. This contrasts to one study of psychodynamic child therapy using the CPQ, where therapists appeared to be more structuring and accommodating at early stages of the treatment and more interpretive later (Goodman, 2015). However, it seems like in this study treatment stage did not have a significant influence on the interaction patterns between therapists and young people.

Limitations and implications for future research

There were several limitations that need to be mentioned. Although rater blindness was maintained, true blindness to the sessions' therapeutic approach was not possible to achieve as most of the sessions presented distinctive features of their respective manuals that made them easy to recognize (even within the first few minutes of the session). Unfortunately, this is not unique to this study and no more measures could

have been taken to ensure blindness. The APQ data is no more biased than the one obtained from other instruments that are coded after listening to the whole session.

Secondly, because of time constrains only one session per treatment was coded. Other studies have coded more than one session per treatment and averaged the scores across all time points in order to provide greater psychometric stability for the variables under investigation (Goldman & Gregory, 2009; Kuutmann & Hilsenroth, 2012), and doing so here would have strengthened the confidence in the stability of our findings. An interesting line for future research would be to code more sessions from the treatments of Cluster 3 to test the hypotheses proposed in the discussion.

A further limitation is the difference in size of the clusters. Even though this is an expected result of that analysis, the third cluster, which could be argued contained the most interesting results, was composed by only 9 sessions. Future studies will show whether this small number of sessions is a consistent finding. If in future studies this result is replicated and linked to negative outcome, it would be important to re-think from a clinical point of view the techniques therapists should use when confronted with disengaged, depressed young people.

Finally, as the link between process and outcome is process research's ultimate aim, future research will need to explore which clusters were related to better outcomes. At the time of conducting this study, outcome data was not available, but this will be an important area for further study.

Conclusion

There continues to be a lack of research examining what actually takes place in the in-session interaction between therapists and young people. By using the newly-developed Adolescent Psychotherapy Q-Set, this study was able to throw light on

different types of interaction structures which are both shared and unique to CBT and STPP therapies with depressed young people. Results of this study showed that when there is a good and collaborative working relationship between therapists and young people, the therapy process is highly influenced by the therapists' techniques, based on their treatment model. On the other hand, when there is a poor working relationship with a non-engaged young person, the techniques used by therapists of different theoretical orientations appear to be more similar, with the apparent aim of engaging the young person in the process of psychotherapy.

References

Ablon, J. S., & Jones, E. E. (1998). How expert clinicians' prototypes of an ideal treatment correlate with outcome in psychodynamic and cognitive-behavioral therapy. *Psychotherapy Research*, *8*(1), 71–83. https://doi.org/10.1080/10503309812331332207

Ablon, J. S., & Jones, E. E. (1999). Psychotherapy process in the National Institute of Mental Health Treatment of Depression Collaborative Research Program. *Journal of Consulting and Clinical Psychology*, *67*(1), 64–75. Retrieved from http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=10028210

Angold, A., Costello, E. J., Pickles, A., & Winder, F. (1987). *The development of a questionnaire for use in epidemiological studies in children and adolescents*. London: MRC Child Psychiatry Research Unit.

Beutler, L. E. (2002). The dodo bird is extinct. *Clinical Psychology: Science and Practice*, *9*(1), 30–34.

Beutler, L. E., Malik, M., Alimohamed, S., Harwood, T. M., Talebi, H., Noble, S., & Wong, E. (2004). Therapist variables. In M. J. Lambert (Ed.), *Bergin and Garfield's handbook of psychotherapy and behavior change* (5th ed., pp. 227–306). New York: Wiley.

Block, J. (1961). *The Q-sort method in personality assessment and psychiatric research*. Springfield Illinois USA: Charles C Thomas Publisher. Retrieved from http://www.psychology.sunysb.edu/.../Jack_Block_Q-sort_method_book.pdf

Burns, R., & Burns, R. (2008). Cluster analysis. . In *Business research methods and statistics using SPSS.* (pp. 552–567). London: SAGE Publication. https://doi.org/Extra Chapter found in:

http://www.uk.sagepub.com/burns/chapters.htm.

CBT Impact Study Sub-group (2010). *Cognitive-behaviour therapy for depression in young people: Manual for therapists.* Unpublished manual.

Clarkin, J., & Levy, K. N. (2004). The influence of client variables on psychotherapy. In M. J. Lambert (Ed.), *Bergin and Garfield's handbook of psychotherapy and behavior change* (5th ed., pp. 194–226). New York: Wiley.

Coombs, M. M., Coleman, D., & Jones, E. E. (2002). Working with feelings: The importance of emotion in both cognitive-behavioral and interpersonal therapy in the NIMH Treatment of Depression Collaborative Research Program. *Psychotherapy: Theory, Research, Practice, Training*, *39*(3), 233–244. https://doi.org/10.1037/0033-3204.39.3.233

Cregeen, S., Hughes, C., Midgley, N., Rhode, M., & Rustin, M. (2016). *Short-term psychoanalytic psychotherapy for adolescents with depression: A treatment manual*. London: Karnac Books.

Gazzillo, F., Waldron, S., Gorman, B. S., Stukenberg, K., Genova, F., Ristucci, C., … Mazza, C. (2017). The components of psychoanalysis: Factor analyses of process measures of 27 fully recorded psychoanalyses. *Psychoanalytic Psychology*. https://doi.org/http://dx.doi.org/10.1037/pap0000155

Goldman, G. A., & Gregory, R. (2009). Preliminary relationships between adherence and outcome in dynamic deconstructive psychotherapy. *Psychotherapy: Theory, Research and Practice*, *46*(4), 480–485. Retrieved from http://sfx.ucl.ac.uk/sfx_local?sid=google&auinit=GA&aulast=Goldman&atitle=Preliminary relationships between adherence and outcome in dynamic deconstructive psychotherapy.&id=doi%3A10.1037%2Fa0017947&title=Psychotherapy%3A

theory%2C research and practice&v

Goodman, G. (2015). Interaction structures between a child and two therapists in the psychodynamic treatment of a child with borderline personality disorder. *Journal of Child Psychotherapy*, *41*(2), 141–161. https://doi.org/10.1080/0075417X.2015.1048124

Goodman, G., Edwards, K., & Chung, H. (2012). Interaction structures formed in the psychodynamic therapy of five patients with borderline personality disorder in crisis. *Psychology and Psychotherapy: Theory, Research and Practice*.

Goodyer, I. M., Reynolds, S., Barrett, B., Byford, S., Dubicka, B., Hill, J., … Fonagy, P. (2017). Cognitive behavioural therapy and short-term psychoanalytical psychotherapy versus a brief psychosocial intervention in adolescents with unipolar major depressive disorder (IMPACT): a multicentre, pragmatic, observer-blind, randomised controlled superiori. *The Lancet Psychiatry*, *4*(2), 109–119. https://doi.org/http://dx.doi.org/10.1016/ S2215-0366(16)30378-9

Goodyer, I. M., Tsancheva, S., Byford, S., Dubicka, B., Hill, J., Kelvin, R., … Fonagy, P. (2011). Improving Mood with Psychoanalytic and Cognitive Therapies (IMPACT): A pragmatic effectiveness superiority trial to investigate whether specialised psychological treatment reduces the risk for relapse in adolescents with moderate to severe unipolar depres. *Trials*, *12*, 175–186. https://doi.org/10.1186/1745-6215-12-175

Jacobson, C. M., & Mufson, L. (2010). Treating adolescent depression using interpersonal psychotherapy. In J. R. Weisz & A. E. Kazdin (Eds.), *Evidence-based psychotherapies for children and adolescents* (2nd ed., pp. 140–155). New York: Guilford Press. Retrieved from http://sfx.ucl.ac.uk/sfx_local?sid=google&auinit=JR&aulast=Weisz&title=Evide

nce-based psychotherapies for children and adolescents&genre=book&isbn=1593859740&date=2010

Jones, E. E. (1985). *Manual for the Psychotherapy Process Q-set. Unpublished manuscript*. University of California, Berkeley.

Jones, E. E. (2000). *Therapeutic action: A guide to psychoanalytic therapy*. Northvale, New Jersey, London: Jason Aronson.

Jones, E. E., Cumming, J. D., & Horowitz, M. J. (1988). Another look at the nonspecific hypothesis of therapeutic effectiveness. *Journal of Consulting and Clinical Psychology*, *56*(1), 48–55.

Jones, E. E., & Pulos, S. M. (1993). Comparing the process in psychodynamic and cognitive-behavioral therapies. *Journal of Consulting and Clinical Psychology*, *61*(2), 306–316.

Kaufman, J., Birmaher, B., Brent, D., Rao, U. M. A., Flynn, C., Moreci, P., … Ryan, N. (1997). Schedule for affective disorders and schizophrenia for school-age children-present and lifetime version (K-SADS-PL): initial reliability and validity data. *Journal of the American Academy of Child & Adolescent Psychiatry*, *36*(7), 980–988.

Kaufman, N. K., Rohde, P., Seeley, J. R., Clarke, G. N., & Stice, E. (2005). Potential mediators of cognitive-behavioral therapy for adolescents with comorbid major depression and conduct disorder. *Journal of Consulting and Clinical Psychology*, *73*(1), 38–46. https://doi.org/10.1037/0022-006X.73.1.38

Kazdin, A. E. (2007). Mediators and mechanisms of change in psychotherapy research. *Annual Review of Clinical Psychology*, *3*, 1–27. https://doi.org/10.1146/annurev.clinpsy.3.022806.091432

Kazdin, A. E., & Nock, M. K. (2003). Delineating mechanisms of change in child and

adolescent therapy: Methodological issues and research recommendations. *Journal of Child Psychology and Psychiatry*, *44*(8), 1116–1129.

Kent, L., Vostanis, P., & Feehan, C. (1997). Detection of major and minor depression in children and adolescents: evaluation of the Mood and Feelings Questionnaire. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, *38*(5), 565–573. https://doi.org/10.1111/j.1469-7610.1997.tb01543.x

Kline, P. (1994). *An easy guide to factor analysis*. London, New York: Routledge. Retrieved from http://sfx.ucl.ac.uk/sfx_local?sid=ALEPH%3AUCL01&genre=&isbn=0415094909&issn=&date=1994&volume=&issue=&spage=&aulast=Kline&aufirst=Paul&auinit=&title=An easy guide to factor analysis %2F&atitle=&__service_type=&pid=DocNumber%3D000081215%2CIp%3Dwallace.lib

Kolko, D. J., Brent, D. A., Baugher, M., Bridge, J., & Birmaher, B. (2000). Cognitive and family therapies for adolescent depression: Treatment specificity, mediation, and moderation. *Journal of Consulting and Clinical Psychology*, *68*(4), 603–614. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/10965636

Kuutmann, K., & Hilsenroth, M. J. (2012). Exploring in-session focus on the patient-therapist relationship: Patient characteristics, process and outcome. *Clinical Psychology and Psychotherapy*, *19*(3), 187–202. Retrieved from http://sfx.ucl.ac.uk/sfx_local?sid=google&auinit=K&aulast=Kuutmann&atitle=Exploring In-Session Focus on the Patient–Therapist Relationship%3A Patient Characteristics%2C Process and Outcome&id=doi%3A10.1002%2Fcpp.743&title=Clinical psychology %26 psychothe

Lambert, M. J. (1992). Psychotherapy outcome research: Implications for integrative and eclectic therapists. In J. C. Norcross & M. R. Goldstein (Eds.), *Handbook of psychotherapy integration* (pp. 94–129). New York: Basic.

Lambert, M. J. (2013). Introduction and historical overview. In M. J. Lambert (Ed.), *Bergin and Garfield's handbook of psychotherapy and behavior change* (6th ed., pp. 3–20). Hoboken, NJ.: Wiley.

Lambert, M. J., & Barley, D. E. (2002). Research summary on the therapeutic relationship and psychotherapy outcome. In J. C. Norcross (Ed.), *Psychotherapy relationships that work: Therapist contributions and responsiveness to patients* (pp. 17–32). New York: Oxford University Press.

Liber, J. M., McLeod, B. D., Van Widenfelt, B. M., Goedhart, A. W., van der Leeden, A. J., Utens, E. M., & Treffers, P. D. (2010). Examining the relation between the therapeutic alliance, treatment adherence, and outcome of cognitive behavioral therapy for children with anxiety disorders. *Behav Ther*, *41*(2), 172–186. https://doi.org/10.1016/j.beth.2009.02.003

Midgley, N. (2009). Research in child and adolescent psychotherapy: An overview. In A. Horne & M. Lanyado (Eds.), *Handbook of child and adolescent psychotherapy: Psychoanalytic approaches* (2nd ed., pp. 73–97). London: Routledge. Retrieved from http://sfx.ucl.ac.uk/sfx_local?sid=google&auinit=M&aulast=Lanyado&title=The handbook of child and adolescent psychotherapy%3A psychoanalytic approaches&genre=book&isbn=0415172594&date=1999

Mooi, E., & Sarstedt, M. (2011). Cluster analysis. In *A concise guide to market research* (pp. 237–284). Verlag Berlin Heidelberg: Springer.

Norcross, J. C., & Lambert, M. J. (2011). Evidence-based therapy relatioships. In J.

C. Norcross (Ed.), *Psychotherapy relationships that work: Evidence-based responsiveness* (2nd ed., pp. 3–24). New York; Oxford: Oxford University Press.

Orlinsky, D. E., Rønnestad, M. H., & Willutzki, U. (2004). Fifty years of psychotherapy process-outcome research: Continuity and change. In M. J. Lambert (Ed.), *Bergin and Garfield's handbook of psychotherapy and behavior change* (5th ed., pp. 307–390). New York: Wiley. Retrieved from http://sfx.ucl.ac.uk/sfx_local?sid=google&auinit=MJ&aulast=Lambert&title=Bergin and Garfield%27s handbook of psychotherapy and behavior change&genre=book&date=2004

Schneider, C., & Jones, E. E. (2004). *Child Psychotherapy Q-Set coding manual. Unpublished manuscript*. University of California, Berkeley.

Schneider, C., Pruetzel-Thomas, A., & Midgley, N. (2009). Discovering new ways of seeing and speaking about psychotherapy process: The Child Psychotherapy Q-Set. . In N. Midgley, J. Anderson, E. Grainger, T. Nesic-Vuckovic, & C. Urwin (Eds.), *Child psychotherapy and research: New approaches, emerging findings* (pp. 72–84). New York; London: Routledge.

Shirk, S. R., Crisostomo, P. S., Jungbluth, N., & Gudmundsen, G. R. (2013). Cognitive mechanisms of change in CBT for adolescent depression: Associations among client involvement, cognitive distortions, and treatment outcome. *International Journal of Cognitive Therapy*, *6*(4), 311–324. https://doi.org/10.1521/ijct.2013.6.4.311

Shirk, S. R., & Karver, M. S. (2003). Prediction of treatment outcome from relationship variables in child and adolescent therapy: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, *71*(3), 452–464. https://doi.org/10.1037/0022-006X.71.3.452

Shirk, S. R., & Karver, M. S. (2006). Process issues in cognitive-behavioral therapy for youth. In P. C. Kendall (Ed.), *Child and adolescent therapy: Cognitive-behavioral procedures* (3rd ed., pp. 465–491). New York, London: Guilford Press.

Shirk, S. R., Karver, M. S., & Brown, R. (2011). The alliance in child and adolescent psychotherapy. *Psychotherapy*, *48*(1), 17–24. https://doi.org/10.1037/a0022181

Shrout, P. E., & Fleiss, J. L. (1979). Intraclass correlations: Uses in assessing rater reliability. *Psychological Bulletin*, *86*(2), 420–428. Retrieved from http://sfx.ucl.ac.uk/sfx_local?sid=google&auinit=PE&aulast=Shrout&atitle=Intraclass correlations%3A uses in assessing rater reliability.&id=doi%3A10.1037%2F0033-2909.86.2.420&title=Psychological bulletin&volume=86&issue=2&date=1979&spage=420&issn=0033-290

Sund, A. M., Larsson, B., & Wichstrøm, L. (2001). Depressive symptoms among young Norwegian adolescents as measured by the Mood and Feelings Questionnaire (MFQ). *European Child and Adolescent Psychiatry*, *10*(4), 222–229. https://doi.org/10.1007/s007870170011

Verduyn, C. (2009). Common problems. In *Depression: Cognitive behaviour therapy with children and young people* (pp. 153–156). London: Routledge. Retrieved from http://sfx.ucl.ac.uk/sfx_local?sid=google&auinit=C&aulast=Verduyn&title=Depression%3A cognitive behaviour therapy with children and young people&genre=book&isbn=0415399777&date=2009

Wampold, B. E. (2001). *The great psychotherapy debate: Models, methods, and findings*. Mahwah, N.J.: Lawrence Erlbaum Associates, Inc.

Wampold, B. E., Hollon, S. D., & Hill, C. E. (2011). Unresolved questions and future

directions in psychotherapy research. In J. C. Norcross, G. R. VandenBos, & D. K. Freedheim (Eds.), *History of psychotherapy: Continuity and change* (2nd ed., pp. 333–356). Washington, DC: American Psychological Association. Retrieved from http://books.google.com/books?id=xBkbQwAACAAJ

Watts, S., & Stenner, P. (2012). *Doing Q methodological research: Theory, method and interpretation*. Los Angeles, London, New Delhi, Singapore, Washington DC: SAGE Publications.

Webb, C. A., Auerbach, R. P., & DeRubeis, R. J. (2012). Processes of change in CBT of adolescent depression: Review and recommendations. *Journal of Clinical Child and Adolescent Psychology*, *41*(5), 654–665. https://doi.org/10.1080/15374416.2012.704842

Weersing, V. R., & Brent, D. A. (2010). Treating depression in adolescents using individual cognitive-behavioral therapy. In J. R. Weisz & A. Kazdin (Eds.), *Evidence-based psychotherapies for children and adolescents* (2nd ed., pp. 127–139). New York: Guilford Press. Retrieved from http://sfx.ucl.ac.uk/sfx_local?sid=google&auinit=JR&aulast=Weisz&title=Evidence-based psychotherapies for children and adolescents&genre=book&isbn=1593859740&date=2010

Weersing, V. R., Rozenman, M., & Gonzalez, A. (2009). Core components of therapy in youth: Do we know what to disseminate? *Behavior Modification*, *33*(1), 24–47. https://doi.org/10.1177/0145445508322629

Wood, A., Kroll, L., & Moore, A. (1995). Properties of the Mood and Feelings Questionnaire in Adolescent Psychiatric Outpatients: A Research Note. *Journal of Child Psychology and Psychiatry*, *36*(2), 327–334. https://doi.org/10.1111/j.1469-7610.1995.tb01828.x

Table 1.

Ten Most and Least Characteristic APQ Items in Cluster 1

Item nº	Item description	*M*
97	T encourages reflection on internal states and affects	8.14
9	T tries to make sense of experience	7.69
31	T asks more information or elaboration	7.11
6	YP describes emotional experience of interaction with significant others	7.03
80	T presents an experience from a different perspective	6.97
50	T draws attention to feelings regarded by YP as unacceptable	6.61
8	YP expresses vulnerable feelings	6.47
62	T identifies a recurrent pattern in YP's experience or conduct	6.33
55	YP feels unfairly treated	6.28
73	YP is committed to the work of therapy	6.17
28	YP communicates sense of agency	3.36
44	YP feels wary or suspicious of the therapist	3.36
20	YP is provocative, tests limits of therapy relationship	3.22
87	YP is controlling of the interaction with the therapist	3.08
5	YP has difficulty understanding therapist's comments	2.81
42	YP rejects therapist's comments or observations	2.67
52	YP has difficulty with ending sessions	2.67
14	YP doesn't feel understood by T	2.56
15	YP doesn't initiate topics	2.53
58	Young person is unwilling to examine thoughts, reactions, or motivations related to problems	2.53

Table 2

Ten Most and Least Characteristic APQ Items in Cluster 2

Item nº	Item description	*M*
97	T encourages reflection on internal states and affects	8.24
31	T asks more information or elaboration	8.12
17	T actively structures the session	8.00
9	T tries to make sense of experience	7.48
68	Real vs. fantasized meanings of experiences are actively differentiated	7.12
99	T raises questions about young person’s view	7.04
49	YP's way of speaking is detailed and specific	6.96
80	T presents an experience from a different perspective	6.96
6	YP describes emotional experience of interaction with significant others	6.88
62	T identifies a recurrent pattern in YP's experience or conduct	6.88
67	YP finds difficult to concentrate or maintain attention	2.92
20	YP is provocative, tests limits of therapy relationship	2.84
15	YP doesn't initiate topics	2.64
52	YP has difficulty with ending sessions	2.48
5	YP has difficulty understanding therapist's comments	2.32
14	YP doesn't feel understood by T	2.28
58	Young person is unwilling to examine thoughts, reactions, or motivations related to problems	2.28
87	YP is controlling of the interaction with the therapist	2.28
42	YP rejects therapist's comments or observations	2.16
93	T refrains from taking position in relation to YP’s thoughts or behaviour	1.60

Table 3

Ten Most and Least Characteristic APQ Items in Cluster 3

Item nº	Item description	*M*
15	YP doesn't initiate topics	8.22
31	T asks more information or elaboration	8.22
58	Young person is unwilling to examine thoughts, reactions, or motivations related to problems	7.78
53	YP displays a heightened vigilance about the therapist	7.44
9	T tries to make sense of experience	7.33
17	T actively structures the session	7.22
97	T encourages reflection on internal states and affects	7.22
55	YP feels unfairly treated	7.00
65	T restates or rephrases YP's communication in order to clarify its meaning	6.89
94	YP feels sad or depressed	6.67
23	YP is curious about thoughts, feelings or behaviour of others	2.89
24	YP demonstrates capacity to link mental states with action or behaviour	2.89
40	YP communicates with affect	2.89
74	Humour is used	2.78
8	YP expresses vulnerable feelings	2.33
73	YP is committed to the work of therapy	2.33
38	Shared understanding	2.00
78	YP seeks therapist's approval, affection or sympathy	2.00
72	YP demonstrates lively engagement with thoughts and ideas	1.67
32	YP achieves new understanding	1.33

Table 4

Descriptive statistics for depression at baseline in the three clusters

	N	*M (SD)*	*Md*	*Min-Max*
Cluster 1	35	48.18 (10.47)	48	23-64
Cluster 2	25	48.45 (10.85)	47.9	28-65
Cluster 3	9	45.39 (6.64)	44	35-54