Using the Adolescent Psychotherapy Q-Set to examine the process of time-limited psychodynamic therapy involving two adolescents diagnosed with depression

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Abstract

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Background: Studies indicate that depression and other mental disorders are increasing among adolescents, causing distress and increasing the risk of developing psychological and physical problems later in life (Lewinsohn, Rohde, Seeley, Klein, & Gotlib, 2003). Recent meta-analyses have revealed how adolescent psychotherapy shows disappointing effect sizes when compared to adult psychotherapy, especially with regard to depression. In addition, there is a paucity of psychotherapy research concerning adolescents, and little is known of what works and what does not in psychotherapy involving youth. Hence, it is vital to study both outcomes and processes in adolescent psychotherapy in order to establish an evidence base on how therapists can deliver psychotherapy that is efficacious in treating depression in youth. One way to examine outcome and process is to use a ‘cases within trials’ (CWT) model of research, where cases are strategically selected from a randomized controlled trial in order to shed light on processes within the treatment.

Methods: The study strategically included two 17 year old girls diagnosed with depression and other psychological difficulties part of The First Experimental Study of Transference Work–In Teenagers (FEST-IT) (Ulberg, Hersoug, & Høglend, 2012), who were treated by the same therapist but showed divergent outcomes. Both self-reported and researcher-reported measures on outcome from before, during, after, and one year after therapy ended, are presented. Using audio recordings, all sessions from both treatments were coded using the Adolescent Psychotherapy Q-Set (APQ), a trans-theoretical process measure using Q-methodology to describe the complex interactions that take place during whole sessions in a holistic and clinically meaningful way (Calderon, Schneider, Target, & Midgley, 2017). A factor analysis was then performed to identify the interaction structures, that is; the repeating
mutually influencing interactions between patient and therapist that are fundamental aspects of the therapeutic action (Jones, 2000).

Results: When the APQ was used on all sessions available in the two therapy cases, five interaction structures were identified. Of these five, three explained most of the variance in the sessions of the good outcome – patient, and two explained more of the variance in the poor outcome – patient. Examining the differences between these interaction structures it was found: 1) that the interaction structures primarily loaded by the good outcome – patient was indicative of a very strong working alliance, a finding supported by patient and therapist scores on the Working Alliance Inventory, 2) that the therapist relied heavily on psychodynamic techniques in the good outcome – case, with a patient that was receptive to such an approach, and that the therapist used a more problem-solving and symptom-oriented approach in the poor outcome – case, and 3) that the patient in the poor outcome – case had limited capacity for mentalization, perhaps as a result of a troubled childhood resulting in an anxious-ambivalent attachment style, impeding the formation of an effective working alliance with the therapist.

Conclusion: The APQ was found to be a meaningful tool for describing and comparing adolescent therapy processes. It was found that the use of psychodynamic techniques was associated with positive outcome, and that this may be the result of differences in capacity for mentalization, psychological mindedness and attachment style, causing one of the patients to be more receptive to the use of psychodynamic interventions. This shows that due to client-specific and dyad-specific effects, what works for one patient may not work for another.
Preface

Throughout the six years we spent at the Department of Psychology, the subject of psychotherapy and psychotherapy research was always the most rewarding, both because it is a field where much is yet to be discovered and because the practice of psychotherapy has great potential for causing positive changes in the lives of the people we are going to meet in our offices. When choosing a topic for our thesis, the choice was therefore a simple one.

In the spring of 2016 we had the great fortune of learning about the First Experimental Study of Transference Work – In Teenagers study (FEST-IT), a project we found highly intriguing. Through the work with FEST-IT we have gained insight in approaches to studying psychotherapy processes. The work of coding therapy sessions with the Adolescent Psychotherapy Q-Set (APQ) has both been rewarding and time consuming, as through the project we have not only coded the sessions for the present study but also sessions from other participants included in FEST-IT. This has allowed us to ‘stand on the shoulders of giants’ – listening to and learning from the clinical work of very experienced practitioners.

We are very grateful to FEST-IT and Randi Ulberg for allowing us access to their research material, to Hanne-Sofie Johnsen Dahl for going above and beyond the call of duty in mentoring us in the use of the APQ and in general guidance and emotional support, to Helene Amundsen Nissen-Lie for providing us with invaluable advice in the process of writing this thesis, and to Ana Calderon for training us in the use of the APQ.

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1 Introduction

1.1 Depression in adolescents

Mental health difficulties in general are a growing problem in global health, especially among young people (WHO, 2017). Studies indicate that the number of adolescents impaired by mental health problems increased drastically over the last few decades (Mojtabai, Olfson, & Han, 2016; Sigfusdottir, Asgeirsdottir, Sigurdsson, & Gudjonsson, 2008). About 15-20% of Norwegian children and adolescents between the age of 3-18 have impaired functioning as a result of mental health symptoms, of these about 8% meet the diagnostic criteria of at least one mental health disorder (Bakken, 2016). Among girls aged 15-17, the percentage being given a diagnosis in the children and youth psychiatric services increased from 5% every year in 2011 to 7% every year in 2016. This increase was mainly in depression, anxiety disorders, and adjustment disorders, but also eating disorders (Reneflot et al., 2018). Reports from other countries describe the same tendency (Collishaw, Maughan, Natarajan, & Pickles, 2010; Mojtabai et al., 2016).

Major depressive disorder (MDD) is today one of the most prevalent mental health problems among adolescents, and the World Health Organization has described depression as the “leading cause of disability worldwide” (WHO, 2018). In adolescents between 15 and 17 about 0.6-0.7% of boys were diagnosed with depression in the years between 2008 and 2016, while the percentage of girls diagnosed with depression increased from 1.5% in 2010 to 2.5% in 2013 (Reneflot et al., 2018). Some might argue that this increase is due to widespread underreporting in previous surveys, and that the growing awareness of and focus on adolescent’s mental health problems have caused the increase in diagnosed depression.

However, according to a recent survey of Norwegian youth the number of adolescents with depressive symptoms in general has also increased (Bakken, 2016).

Even though there seems to be an overall growth of depressive symptoms among adolescents over the last few years, the increase seems to be highest in the female population. In 2016 one out of four girls in the age 15-16 reported a high level of depressive symptoms, representing three times as many girls as boys (Bakken, 2016). In addition to depressive disorder being more prevalent in girls, girls are also more likely to have more severe symptoms, and their
depressions are likely to last longer and be more impairing. Girls are also at a greater risk of self-harm and suicidal thoughts (Huberty, 2012).

The reasons for the increase in depression and depressive symptoms is unclear. However, a recent study has suggested link between the time spent using smartphones and computers and depressive symptoms (Twenge, Joiner, Rogers, & Martin, 2018). If so, in these times of technology and social media it is likely that the increase will continue in the years to follow.

Reports and studies have found depression to be a serious problem in young adulthood, as it affects the person involved at the time, but also by increasing the risk of both psychological and physical problems later in life (Lewinsohn et al., 2003; Maughan, Collishaw, & Stringaris, 2013). The impairment caused by depression is also a huge cost to society (Sobocki, Jönsson, Angst, & Rehnberg, 2006). Both mental health problems in general, but also depression and depressive symptoms in particular, have been linked to school drop-out (Quiroga, Janosz, Bisset, & Morin, 2013). Knowledge of what works in therapy with adolescents is therefore needed to alleviate these challenges.

In sum, depression amongst adolescents is a growing problem, causing individual distress and socioeconomic difficulty for both the persons affected and the society in which they live. Our focus will now turn to the status of psychotherapy research with a focus on treating adolescents with depression in psychotherapy.

1.2 Psychotherapy research

This section will present research on the efficacy of psychotherapy, the processes that take place during psychotherapy and how particular processes can be predictors of outcome in psychotherapy, especially with regards to adolescent psychotherapy.

1.2.1 Psychotherapy outcome research

There is a general agreement that psychotherapy is effective for reducing psychological symptoms and treating mental health issues, both in adults and children/adolescents (Lambert 2013). Much of the research on the efficacy of psychotherapy has been conducted using Randomized Controlled Trials (RCTs) (Wampold & Imel, 2015). This research has convincingly demonstrated that, on average, psychotherapy works, and that different
psychotherapy approaches work equally well (Wampold & Imel, 2015). This latter finding is often referred to as the “Dodo-bird verdict.” The “Dodo-bird verdict” is a reference Rosenzweig (1936) made to Lewis Carrol’s “Alice in wonderland,” where the Dodo-bird says in the end of a contest: “Everybody has won, and all must have prizes,” when describing the apparent equivalence in efficacy between different therapeutic methods. RCTs of adolescent psychotherapy have reached the same conclusion as those studying adults; the “Dodo-bird verdict” seems to be valid also for adolescent psychotherapy (Miller, Wampold, & Varhely, 2008).

Many studies have found that individual therapy is effective for treating psychological problems in adolescents (Lambert, 2013; Midgley & Kennedy, 2011), an effect that also has been confirmed by meta-analysis (Kazdin, 2000). However, the reported effect size of psychotherapy for treating depression among children and adolescents is only small to moderate (Weisz, McCarty, & Valeri, 2006). In addition, Fonagy (2002) reports that as many as 40-50 per cent of children and adolescents with depression are non-responders to treatment. Furthermore, a recent meta-analysis showed disappointing results concerning psychotherapy for youth, and the results regarding psychotherapy for adolescents with depression were especially disappointing. The effect sizes were surprisingly low; E.S = 0.32 when rated by the youth, 0.15 when rated by the parent, and when rated by teachers the effect of the treatment group was actually rated to be lower than that of the control group (Weisz et al., 2017). Given these findings, and the fact that there is still no evidence of how the different approaches lead to change (Kazdin, 2009), it becomes vital to find new and more accurate ways to examine what actually works in therapy.

1.2.2 Psychotherapy process research

While RCTs have been widely used to establish the efficacy of psychotherapy, such trials generally compare the average outcome of an experimental group with the average outcome of a control group, and are therefore not suited to investigate the specific events that occur in each therapy session which may contribute to change (Hardy & Llewelyn, 2015). Each patient and therapist in a clinical trial are not ‘average,’ rather they have their own unique combination of personality traits, experiences and characteristics, combining to form distinct therapeutic dyads. While the focus of most RCTs of psychotherapy is investigating if psychotherapy works, and if so, how well it works, the focus of process research is
investigating *how* psychotherapy works. There is a multitude of definitions of psychotherapy process research, but for the purpose of the present study we will follow the definition given by Llewelyn and Hardy (2001, p. 2) and understand process research “to concern the content of psychological therapy sessions and the mechanisms through which client change is achieved, both in single sessions and across time.”

Psychotherapy process research have four primary aims: 1) to understand the mechanisms underlying and supporting treatment and change processes in psychotherapy, 2) improving the quality of psychotherapy by identifying those aspects of the therapy process that contribute the most to positive change, 3) contribute to the development of psychotherapeutic theories, and finally, 4) to improve the training of therapists by providing data on important mechanisms, effective interventions and sound therapeutic theory (Hardy & Llewelyn, 2015).

### 1.2.3 Process-outcome research

The history of process-outcome research goes back to the early 1940s, when Carl Rogers and his team started systematic recordings and analysis of therapy sessions, measuring process variables and using them to predict outcome (Braakmann, 2015). Rogers’ early work illustrates the central goal of process-outcome research, connecting process research and outcome research in an attempt to discover the aspects of the psychotherapeutic process that are responsible for the outcome of each individual psychotherapy (Kazdin, 2009).

Both in experimental and non-experimental approaches to process-outcome research, at least one process variable and one outcome variable must be sampled. Process variables most often address processes occurring within a session, and these variables can be assessed at the macro level, using post-session self-report instruments, or at the micro level, using within-session nonparticipant observational instruments (Gelo & Manzo, 2015). Outcome variables are sampled at least at the end of treatment but are increasingly being sampled multiple times during and after the course of therapy. Outcome variables can be measured using a panoply of self-report instruments, such as the Beck Depression Inventory, or observational instruments scored by trained clinicians, such as the Psychodynamic Functioning Scales (Gelo & Manzo, 2015).

One important outcome of the psychotherapy research presented in this section, has been a shift from research on which kind of therapy is most effective, to recognizing and
investigating the common factors that are shared by all psychotherapeutic approaches. Some central findings from this common factors – approach to psychotherapy research will now be presented.

1.3 Common factors in psychotherapy

The research evidence seems to suggest that common factors have a greater impact on treatment outcome than specific techniques (Messer & Wampold, 2002). Common factors refer to components in therapy that are shared by all approaches. Nissen-Lie, Oddli and Wampold (2013) emphasize that this includes therapist variables, client variables, trans-theoretical strategies of change, the clients’ expectations and motivation, and the relationship between the therapist and the client. Even if common factors in psychotherapy are agreed upon as being important contributors in treatment outcomes, they are closely interlinked with therapeutic techniques, demonstrating a reciprocal impact in producing therapeutic change (Nissen-Lie et al., 2013).

In the sections to follow the common factors of the working alliance as well as client- and therapist factors that affect outcome will be presented as they are of particular relevance for the present study.

1.3.1 Alliance

The most common definition of the working alliance is the one proposed by Bordin (1979), in which the alliance is seen as composed of three different components, the emotional bond between client and therapist, the agreement between client and therapist about the goals of therapy, and the agreement on the tasks in therapy. A robust association between the quality of the working alliance and treatment outcome has been established (Horvath, Del Re, Flückiger, & Symonds, 2011).

The understanding of the alliance in adolescent psychotherapy, was—for many years—heavily influenced by findings in the literature on adult psychotherapy as a result of alliance research being restricted to adult therapies (Shirk, Caporino, & Karver, 2010). However, during the last 15 years alliance-outcome studies in adolescents have emerged, and a correlation between alliance and outcome has been found, similar to that found in research on adults (Wampold & Imel, 2015).
Still, the effect of the alliance on outcome in therapy involving adolescent clients, differs from one study to another. Some findings suggest that there is a strong link between alliance and client involvement, especially in the initial phase of therapy, and a strong link between client involvement and outcome (Karver et al., 2008). A recent doctoral dissertation studying traumatized adolescents found a significant relationship between alliance and other process variables and outcome (Ormhaug, 2016). The same dissertation also found an association between alliance and the adolescents’ treatment satisfaction. In addition, alliance was reported to play an essential role in preventing youth from dropping out of treatment (Ormhaug, 2016). However, while earlier meta-studies have suggested a medium effect of alliance on outcome in treatment of adolescents (Karver, Handelsman, Fields, & Bickman, 2006), a meta-study by McLeod and colleagues (2011) found only a small effect size on the alliance-outcome association. It has been strongly suggested that the alliance-outcome correlation must be interpreted with caution as previous findings are based upon small samples, and that there are differences across the studies (B. D. McLeod, 2011).

The alliance differs from therapy to therapy, with both patient and therapist contributing to the formation of the alliance (Wampold & Imel, 2015). However, several studies have found that it is the therapists’ contribution that serves as the best predictor of the alliance-outcome association (Hersoug, Høglend, Havik, von der Lippe, & Monsen, 2009; Nissen-Lie, Monsen, & Rønnestad, 2010). Research indicates that with adolescent clients the therapists’ rating may be a stronger predictor of a positive outcome than the clients’ rating (Hughes & Kendall, 2007), in contrast to research in adults (Bohart & Wade, 2013). This may be a result of more positive bias and limited variability in adolescent ratings of the therapeutic relationship (Hughes & Kendall, 2007; Shirk & Karver, 2003), or that judgments about the agreement on therapeutic tasks may exceed the cognitive abilities of many adolescent clients (Shirk, Karver, & Brown, 2011).

The formation of the alliance in therapy with adolescents also seems to differ somewhat from the formation of alliance with adult clients. A study by Binder and colleagues (2011) found that adolescents’ descriptions of good therapy included a balance between the adolescents’ space, individuality and autonomy on one side, and a sense of connectedness and emotional closeness on the other side. Adolescents’ need for individuality has by others been believed to create an obstacle in the creation of a therapeutic relationship (DiGiuseppe, Linscott, & Jilton, 1996). In Binder’s study they found limitations to Bordin’s three-dimensional concept of
alliance, as the adolescents emphasized that the therapist needed to be emotionally authentic, and that this was essential in order to feel recognized as a person.

1.3.2 Client factors

Studies have suggested that client factors are the best predictors of outcome in therapy (Bohart & Wade, 2013). Client factors include a number of demographic variables and characteristics directly related to therapy, such as age, socioeconomic status, interpersonal functioning, motivation etc. (Kelley, Bickman, & Norwood, 2010). The efforts and effects of the therapist are dependent on how the clients make use of them. Even if the percentage of clients’ contribution to variation in treatment outcomes varies from study to study, the literature supports that the quality of the clients’ participation in therapy is the most important factor that makes psychotherapy work (Bohart & Wade, 2013). This makes client factors an important area of study within psychotherapy research. Still, it has been heavily critiqued that client factors seem to be neglected, both in research and in most theoretical models of change (Bohart & Tallman, 2010).

Research on client factors in therapy involving adolescents, has mainly paralleled the research on adults, and there is a definite paucity of research on client factors in youth psychotherapy (Kelley et al., 2010). However, what we do know is that some client factors seem to be especially important when examining psychotherapy with children and adolescents. Caregivers and parents have an important impact on child and adolescent psychotherapy trajectories. Various factors related to parents and caregivers have been identified as exerting an impact in the outcome and general treatment of young people; this includes parents’ and family members’ interpersonal functioning, mental health, intelligence, family environment, and also their expectations towards therapy (Kelley et al., 2010). The young people’s symptoms are probably more influenced by the stress of living at home, how the family members interact, and their socioeconomic status, and this may be something the youth cannot escape or change (Weisz, Ng, Rutt, Lau, & Masland, 2013). Furthermore, it has been stressed that adolescents’ cognitive maturity affects the way they perceive their problems or deal with change strategies, and the fact that the way their psychopathology will manifest differs from that of adults (Oetzel & Scherer, 2003).
However, since research on client factors in adolescent therapy is still scarce, it is necessary to turn to findings from psychotherapy research in adults. Here, attachment style, both outside and in therapy, has been found to be related to outcome (Bohart & Wade, 2013). Four attachment styles have been identified: secure/autonomous, anxious-ambivalent, anxious-avoidant, and disorganized (Ainsworth, Blehar, Waters, & Wall, 1978; Main & Solomon, 1986). Attachment patterns are formed through the interaction with primary caregiver(s) in infancy, and these interpersonal styles formed in childhood are suggested to shape relationships with others, across the life span (Bowlby, 1969). This knowledge makes attachment patterns relevant to the treatment process, as existing patterns influence how clients perceive and respond to their therapists (Liotti, 1991), for example how comfortable clients are with being emotionally intimate with their therapist (Kivlighan Jr, Patton, & Foote, 1998). Global assessments of clients’ attachment have found a positive correlation between secure attachment and outcome. In addition, clients’ attachment to the therapist has been found to be predictive of the quality of the working alliance (Bohart & Wade, 2013).

The concept of attachment is also intimately linked with the concept of mentalization, as it is considered that a person’s capacity for mentalization is developed through his or hers attachment to primary caregivers, wherein a secure attachment would foster the development of a strong capacity for mentalization (Fonagy, Bateman, & Bateman, 2011; Liotti & Gilbert, 2011). Whilst the concept of mentalization is often thought of as being primarily relevant to the treatment of borderline personality disorder, it has been advanced as a more far-reaching concept, with implications for the development, maintenance, and recovery from many mental disorders (Liotti & Gilbert, 2011), and also for the degree to which the therapist is able to form a fruitful working alliance with the client (Allen, Fonagy, & Bateman, 2008).

The client’s psychological mindedness, i.e. the tendency to seek psychological explanations for behavior, or to try to understand people and problems in psychological terms, has been found to affect the outcome of the therapy. However, there is not a sufficient number of existing studies yet, and in the studies that do exist, findings are mixed, as some studies have found a relationship between psychological mindedness and outcome, and others have not (Bohart & Wade, 2013). Access to and awareness of emotions have also been linked to outcome. Generally, it seems that clients who are open and in contact with their emotions benefit more from therapy than clients who are not (Bohart & Wade, 2013). Psychological mindedness is found to increase with age (Hatcher et al, 1990), indicating that adolescence is
a crucial period for development of these capacities. Even if findings indicate that clients with more psychological mindedness can better benefit from therapy, it is also possible that psychotherapy, and dynamic psychotherapy specifically, can help develop these skills (Busch, Rudden, & Shapiro, 2016).

1.3.3 Therapist factors

While numerous studies have shown that therapist characteristics consistently predict outcome, generally explaining more variance than treatment effects even in trials designed to suppress the effect of individual therapists (Wampold & Imel, 2015), the therapist factors have been seen by many as a ‘neglected variable’ in psychotherapy research (Garfield, 1997). In recent years, however, there has been an increased focus on therapist characteristics, with studies showing e.g. that therapist empathy (Elliott, Bohart, Watson, & Greenberg, 2011) and ability to handle challenging interpersonal encounters (Anderson, Benjamin M. Ogles, Patterson, Lambert, & Vermeersch, 2009) are significant predictors of outcome.

The fact that the same therapist was used in both psychotherapies examined in the present study, however, does not mean that all features of the therapy related to the therapist were the same: the therapist’s thoughts, feelings and behaviors are contingent on the patient that is in the room with him, causing a dynamic interaction between the therapist factors and the client factors that will be unique to each therapeutic dyad (Kelley et al., 2010). An example of this kind of interaction is described in a previous study using data from the FEST-IT project, where it was found that therapists tended to modify their approach to the therapy when faced with a weaker alliance and more difficult interactions, relying less on traditional psychodynamic techniques, and adopting a more problem-solving and symptom-oriented approach (Dahl, Calderon, & Ulberg, 2017). Other studies on children, and on adults, have also found evidence that the interaction seems to be unique to each therapeutic dyad (Goodman, Edwards, & Chung, 2014; Schneider, Pruetzel-Thomas, & Midgley, 2009).

1.4 Case studies in psychotherapy research

As the present study is a comparative case study, conducted within the framework of a randomized controlled trial (i.e. a case within trial comparison), we will now briefly describe
the history and development of case study research on psychotherapy, and how this approach can contribute to elucidate psychotherapeutic processes and their effects on outcome.

1.4.1 History and controversy

At the time when psychotherapy emerged as a profession and as a treatment for psychological disorders, around at the turn of the twentieth century, the pioneers of psychotherapy turned to what was the established method of the medical profession, that of writing detailed clinical case studies (J. McLeod, 2010). However, the practice of writing case reports based on what the therapists could remember from each session, was criticized for several apparent reasons: 1) it is impossible to remember in detail everything that was said and done in a session, so that information may be lost or misremembered, 2) writing a retrospective account invites the possibility of reconstructing the session in line with pre-existing assumptions, 3) the perspective of the account is only that of the therapist, and 4) there is no way to verify that the interpretation of the data is rigorous, systematic and comprehensive (J. McLeod, 2010). The growing criticism against case studies, lead many researchers to adopt the paradigm developed by pharmacological researchers, that of the randomized trial with placebo control. Over time RCTs became the dominant paradigm for psychotherapy research, causing a marginalization of the case study approach (Wampold & Imel, 2015). This caused significant tension between nomothetic psychotherapy researchers, who used RCTs to discover and investigate general effects across the average of a sample, and idiographic psychotherapy researchers, who used clinical case studies to investigate in depth the particular phenomena in one therapeutic dyad (Fishman & Edwards, 2017).

1.4.2 Systematic methods of case study research

Faced with mounting criticism, the case research community came to emphasize the need for developing more rigorous methods for conducting and publishing case studies during the 1960s (J. McLeod, 2010). This lead to the development of five distinct types of case studies, *single-subject* designs, *theory-building* case studies, *pragmatic* case studies, *hermeneutic* single case efficacy studies, and *narrative* case studies (J. McLeod, 2010). In the pragmatic case study, the model followed in the present study, the focus is on describing the strategies and methods used by the therapist in the case, as in the classical clinical case study, but compensating for the weaknesses of the classical approach by gathering detailed qualitative
and quantitative data, both subjective and objective, and publishing it in a standard format in a peer-reviewed journal (J. McLeod, 2010).

Following the development of more rigorous methods for conducting case research, a growing rapprochement between the nomothetic and idiographic approaches has been seen during the past two decades, where both sides of the divide have come to acknowledge weaknesses of their own position, and the strengths of the other’s, and where both approaches are combined to yield richer and more rigorous knowledge of the field (Fishman & Edwards, 2017). The present study is an example of one such combined approach, the ‘cases within trials’ model (Fishman & Edwards, 2017), where FEST-IT, the RCT from which the present study gathered its data, is used to answer questions about the average effect of transference interpretation across many patients, while a pragmatic case study model was used in the present thesis to investigate the particular and individual processes and interactions that occur in two therapeutic dyads.

There are several possible approaches and measures that can be used to examine psychotherapy process in comparative case studies, e.g. Luborsky’s Core Conflictual Relationship Theme method (Luborsky & Crits-Christoph, 1998) or the Topic Change Process Analysis method (Skjerve, Reichelt, & McLeod, 2016). The methodology used in the present study, the Q-methodology, will now be described.

1.5 Process research using Q-methodology

Q-methodology provides a holistic approach for studying phenomena, by not only studying a few variables, instead it explores how all variables relate to each other, using Q-factor analysis (Watts & Stenner, 2012). Q-methodology and Q-factor analysis was developed by William Stephenson, who was mentored by the inventor of factor analysis, Charles Spearman, at University College London (Schneider et al., 2009). At this institution, factor analysis was employed in experimental psychology, studying the individual differences between subjects on traits or characteristics (Watts & Stenner, 2012). In general, factor analysis is used as a data reduction technique, where a multitude of associations between some tests or traits measured across a sample of persons in a correlation matrix are reduced to one or more underlying latent or explanatory variables, the factors. However, as a standard and necessary part of factor analysis, the different variables measured are standardized to Z-scores. What
Stephenson realized, was that this procedure caused the standardized scores to be disassociated from the individuals who had made them, since a standardized score only makes sense through reference to a statistical aggregate of all scores on that variable; the information provided through factor analysis, was general rather than individual (Watts & Stenner, 2012). Stephenson set out to develop a factor analysis that would preserve the individual differences in a holistic manner. This may, in essence, be done by turning the correlation matrix on its side, and considering the persons as variables and the tests as the sample, an approach now known as Q-factor analysis. (Watts & Stenner, 2012).

Stephenson’s methods were elaborated by noted personality psychologist Jack Block, who developed observer-rating procedures using this new Q-methodology (Block, 1978). Block’s work garnered interest in the psychological community about how commonly used psychological terms and constructs are used, and what they mean to the individuals using them (Schneider et al., 2009).

The Q-methodology was further developed by Enrico Jones to study the process of psychotherapy. Jones was concerned that the competition between different therapeutic methods to prove their efficacy, would likely lead to yet more findings of equivalent outcomes, and that this would do little to further the understanding of how patients improve through psychotherapy, and furthermore that the “dodo-bird verdict” could lead to an erroneous conclusion that common factors were the only active ingredients in psychotherapy (Ablon, Levy, & Smith-Hansen, 2011). He developed the Psychotherapy Process Q-Set (PQS) to create a language and rating procedure to describe the complex interactions between therapist and patient, in a theoretically neutral, holistic and clinically meaningful way (Ablon et al., 2011; Schneider et al., 2009). Furthermore, he developed the idea that Q-factor analysis of PQS-scores could be used to identify the repeating mutually influencing interactions between patient and therapist that are fundamental aspects of the therapeutic action, what he called the ‘interaction structures’ (Jones, 2000). The PQS has been widely used to investigate psychotherapy processes, both across a number of clients, and in more in-depth examinations of single cases (see Ablon et al., 2011). It has also been used to compare process in psychodynamic and cognitive behavioral therapies, where it was found that a greater use of psychodynamic techniques was associated with positive outcome in both approaches (Jones & Pulos, 1993).
While the PQS was developed to describe and investigate processes in psychotherapy with adults, the methodology has also been adopted for psychotherapy involving children in the Child Psychotherapy Q-Set (CPQ) (Schneider et al., 2009), and for psychotherapy involving adolescents in the Adolescent Psychotherapy Q-Set (APQ) (Bychkova, Hillman, Midgley, & Schneider, 2011; Calderon et al., 2017). Q-methodology as a means to discover interaction structures, has been used in several case studies, e.g. a study by Jones, Ghannam, Nigg, and Dyer (1993) of the long-term psychodynamic treatment of a depressed adult patient, where it was found that the therapist and the patients influenced each other in a mutual and reciprocal process; or the study by Schneider, Midgley, and Duncan (2010) of the treatment of an 11-year-old depressed and anxious girl, where CPQ was used to paint a vivid picture of the unique dynamics between the child and her therapist. As the APQ was the latest of these Q-methodology approaches to be developed, few studies had been published using it in case research at the time when the present study was conducted, and no studies had been undertaken where the APQ was used to examine all sessions of completed psychotherapies. Hence, this approach was considered to be a potentially fruitful direction in which to investigate psychotherapy processes involving depressed adolescents.

To summarize, reports show that depression is a vast and increasing problem among adolescents. While there has been increased interest and major developments in psychotherapy research, there is still a paucity of research on psychotherapy involving adolescents. Furthermore, the existing research indicates a comparatively lower rate of positive outcomes of psychotherapy with youth, compared to that with adults. Additionally, there is a need to understand more of the processes that lead to better or poorer outcomes. The present study aims to demonstrate one possible approach that may encourage further exploration of this field.

1.6 Aims and research questions

The aim of the present study was to describe and compare the therapy process of two time-limited psychodynamic therapies involving adolescent girls diagnosed with depression. The two patients were similar on many characteristics, and were treated by the same therapist, but presented divergent outcomes, i.e. one of them showed substantial improvement on the primary outcome measure, while the other one displayed a slight deterioration. Examining the psychotherapeutic process involving two similar patients treated by the same therapist
presents a unique opportunity to elucidate factors due to the therapist, the patient, the technique and their interaction (Fishman, 2011; Strupp, 1980). We seek to do this in a data-driven way, putting aside the knowledge that these two therapies are intended to be psychodynamic, as research has shown that therapists do not always adhere to the techniques prescribed by their chosen treatment method (Ablon & Jones, 1998; Ablon & Jones, 2002).

The Adolescent Psychotherapy Q-Set was chosen as the main process measure of the present study, as this measure is well suited to describe—in a theoretically neutral and clinically meaningful way—the complex interactions that take place between therapist and patient over whole sessions and the whole treatment (Bychkova et al., 2011) in a manner that is appropriate for quantitative analysis (Calderon et al., 2017). The primary unit of analysis is the ‘interaction structures,’ the repeating mutually influencing interactions between patient and therapist that are fundamental aspects of the therapeutic action (Jones, 2000).

Our main research question was: What interaction structures are indicative for the processes in two psychodynamic therapies involving adolescents with different treatment outcomes?

Using the interaction structures found, we will investigate the following sub-questions:

1. Are there differences in interaction structures between the two psychotherapies, and if so, in what way are they different?

2. Are the interaction structures expressed to different degrees over the course of the therapy trajectories?

3. Can the interaction structures help us to elucidate similarities and differences in the working alliance in the two psychotherapy trajectories?

4. Can the interaction structures indicate differences in client factors between the two patients, and if so, what are they?

5. Does the therapist seem to make adjustments to his approach or technique in his interaction with the two patients?

6. What may constitute psychotherapeutic change in these two psychotherapy trajectories, and is this change evident in the interaction structures or their expression over the course of the therapy?
2 Method

2.1 Design

The present study is a comparative case study of two complete time-limited dynamic psychotherapies of adolescent girls diagnosed with depression, using the Adolescent Psychotherapy Q-Set (APQ) to investigate possible links between process and outcome.

The data for the study was obtained from The First Experimental Study of Transference Work–In Teenagers (FEST–IT) (Ulberg et al., 2012). FEST-IT is a randomized clinical trial with a dismantling design aimed at studying the effects of transference interventions for adolescents with major depressive disorder. The study was done in cooperation between Institute of Clinical Medicine at University of Oslo and the Hospital of Vestfold. The therapists in the study were specialists in child and adolescent psychiatry, or specialists in clinical psychology with additional education in psychotherapy with adolescents. The adolescents included in the study were between the ages of 16 and 18. Exclusion criteria were psychosis or pervasive developmental disorders. The patients were referred to private practice and child and adolescent outpatient departments in the South-Eastern Health Region of Norway. In the study, the adolescents included were offered short-term psychodynamic/psychoanalytic psychotherapy (STPP) once a week over 28 weeks. They were randomized to two different treatment groups: one transference group, where the therapists focused on working with the transference dynamics that take place between patient and therapist (i.e. explicit focus on the therapeutic relationship) with moderate intensity, and one comparison group, where the therapists provided psychodynamic psychotherapy, but avoided directly focusing on the patient–therapist relationship and rather focused on interpersonal relationships outside of therapy. General psychodynamic techniques, such as the exploration of feelings and defenses, and relationships outside of the therapeutic relationship, were used in both. The therapy sessions were audio-recorded.

After agreeing to participate, all adolescents were diagnostically interviewed by one of the researchers in the project. The diagnostic interviews were completed using M.I.N.I 6.0.0 (Sheehan et al., 1998) and Structured Interview for DSM-IV Personality (SIDP- IV) (Phohl B, 1997). A psychodynamic interview based on Malan (1976) and Sifneos (1992) was also performed (see Ulberg et al., 2012 for more information on FEST-IT).
2.1.1 The treatment

The treatment consisted of 28 sessions of short-term psychodynamic therapy, averaging about 45 minutes in duration, with or without transference work (see above). As the collection of data in FEST-IT had not been completed, the randomization key had not been opened. The authors of the present study were therefore not aware if the therapies included in this present study were conducted with or without transference work. The Short Term Psychoanalytic Psychotherapy (STPP) manual (IMPACT Study Child Psychotherapy Sub-Group, 2010) from the Improving Mood with Psychoanalytic And Cognitive Therapies (IMPACT) study (Goodyer et al., 2011) was used as manual for the treatment. This manual presents the theoretical background for dynamic psychotherapy with adolescents, as well as therapeutic principles for the different phases of therapy. These principles can be linked to Shedler’s (2010) seven principles, determined by empirical findings and transcripts, which are what distinguishes psychodynamic treatment from other treatments: 1) focus on affect and expression of emotion, 2) exploration of attempts to avoid distressing thoughts and feelings, 3) identification of recurring themes and patterns, 4) discussion of past experience (developmental focus), 5) focus on interpersonal relations, 6) focus on the therapy relationship, and 7) exploration of fantasy life.

The aim of STPP goes beyond ‘symptom relief,’ as it also addresses “some of the underlying vulnerabilities to depression, by means of its focus on the central depressive dynamics that may have created or be sustaining the young person’s depression” (IMPACT Study Child Psychotherapy Sub-Group, 2010).

2.1.2 Ethics

Informed written consent was obtained from all participants before they were included in FEST-IT. FEST-IT was approved by the Regional Committees for Medical and Health Research Ethics (REC) (REK: 2011/1424 FEST-IT). Patient data, including audio recordings of the sessions used in the present study, were anonymized, treated as sensitive and confidential material, and stored in the research database at Vestfold Hospital Trust. Examining the psychotherapy processes of adolescents with self-rating instruments is considered a sensitive topic, and requires a focus on the integrity of the participants involved. It was therefore important to ensure that that all data in the database were anonymized, and that no part of the patients’ history was stored outside their files. In addition, the present
study, being a case study, necessitated extra caution in regard to the presentation of results to ensure the anonymity of the patients. Some information about the patients has therefore been altered or withheld.

2.2 Participants

2.2.1 Patient selection
To fulfil the aim of the present study, a search was performed in the FEST-IT data for two patients of the same gender and similar age, treated by the same therapist, who showed divergent outcomes and who had attended the one-year follow-up interview. That the patients had attended the follow-up interview was desirable, as some studies have suggested a ‘sleeper effect’ of psychodynamic psychotherapy, where the positive gains achieved in therapy continues to increase after completion (Muratori, Picchi, Bruni, Patarnello, & Romagnoli, 2003). Hence, it is assumed that the one-year follow-up gives the best indication of therapy outcome. Only one such pair was found in the data, two girls aged 17, who from now on will be referred to as ‘Johanna’ and ‘Sonja.’ Their names and other personal information are disguised to protect their identity.

2.2.2 The therapist
The therapist was a Norwegian male psychiatrist in his 60s. He was a specialist in child and adolescent psychiatry, and he had, at the time of conducting the two therapies, over 30 years of experience in psychodynamic therapy with children and adolescents. Before entering FEST-IT he had attended more than one year of training in order to provide dynamic psychotherapy with a moderate frequency of transference interventions (one to three per session), and dynamic psychotherapy without transference work.

2.2.3 The researchers
The researchers were two 6th year psychology students. One of the researchers was a gestalt therapist with some clinical work experience in addition to the clinical training as part of the professional program in psychology, while the other researcher had no therapist experience, except for the clinical training as part of the professional program, but had some research
experience. Both researchers were trained in, or inspired by, dynamic psychotherapy and employed it in their own clinical work.

Both researchers had attended two full days of APQ training organized by FEST-IT in June 2016. After attending the training, the authors coded sessions from the IMPACT study until a satisfactory reliability of >0.7 was achieved when measured against the IMPACT researchers. After becoming reliable, both researchers coded several sessions from the FEST-IT study with satisfactory reliability, before starting the coding of all the sessions for the purposes of the present study.

2.3 Measures

FEST-IT included a variety of measures, but not all are relevant for this study. Only the measures relevant for the following study will be presented in the following paragraphs.

2.3.1 Outcome measures

Psychodynamic functioning scales (PFS) (Høglend et al., 2000)

The Psychodynamic functioning scales were used as the main outcome measure in this study. This outcome measure is designed for measuring change, beyond symptoms and general dysfunctions, that might take place during and after psychodynamic therapy (Bøgwald & Dahlbender, 2004), as it is intended to assess “internal predispositions, psychological resources, capacities or aptitudes that can be mobilized by the individual to achieve adaptive functioning and life satisfaction” (Høglend et al., 2000). It consists in its most recent version of six scales, which are ranged from a minimum of 0 to a maximum of 100, similar to the Global Assessment of Functioning scales (Karterud, Pedersen, Løvdahl, & Friis, 1998). Three scales measure interpersonal aspects: 1) quality of family relations, 2) quality of friendships, and 3) romantic/sexual relationships, and three measure intrapersonal aspects: 4) tolerance of affects, 5) insight, and 6) problem solving and adaptive capacity. In FEST-IT the romantic/sexual relationships scale was not included, due to the age of the participants. A manual describing characteristics of different levels of ratings on the different scales is used to aid the rating process (Høglend et al., 1997). This measure has been tested and has demonstrated good reliability and validity in an adult population (Bøgwald & Dahlbender, 2004; Høglend et al., 2000) In an adolescent population, the interrater reliability was found to
be on average good on the relational subscales, and fair to good on the dynamic subscales (Ness et al., Submitted).

Montgomery Åsberg Depression Rating Scale (MADRS)

As a secondary outcome measure, the Montgomery Åsberg Depression Rating Scale, MADRS (Montgomery & Åsberg, 1979), was used. The MADRS is an observer rated scale consisting of ten depression symptoms: apparent sadness, reported sadness, inner tension, reduced sleep, reduced appetite, concentration difficulties, lassitude, inability to feel, pessimistic thoughts and suicidal thoughts. The MADRS rates the symptoms on a scale from 0 to 6. Total scores vary in the range 0 – 60, with higher scores reflecting more severe depression. It is not a diagnostic instrument, but a method of comprehensively surveying the type and magnitude of symptom burden present and is therefore considered to be a measure of illness severity. A MADRS score of 35 or more indicates major depressive symptoms.

MADRS has been found to have good validity, inter-rater reliability and internal consistency (Montgomery & Åsberg, 1979).

Beck Depression Inventory (BDI-II)

The BDI-II (Beck, Steer, Ball, & Ranieri, 1996) is a 21-item self-report inventory. It measures the severity of depression in adolescents and adults, and is widely used. Respondents are instructed to select statements, ranked on a 4-point (0 to 3) scale, which best describes how they felt during the past two weeks. Total scores are obtained by summing the ratings for all items, with a maximum score of 63. It has been found to be a reliable and valid measure of depressive symptoms both in an adult population (Beck, Steer, & Carbin, 1988), and in an adolescent population (Ambrosini, Metz, Bianchi, Rabinovich, & Undie, 1991).

2.3.2 Process measures

Adolescent Psychotherapy Q-Set

The Adolescent Psychotherapy Q-Set is a measure developed to describe psychotherapy processes with adolescents in a way that enables quantitative analyses (Bychkova et al., 2011). It was adapted from the Psychotherapy Process Q-Set (PQS) (Jones, 2000) and the Child Psychotherapy Q-Set (CPQ) (Schneider et al., 2009) to be relevant to processes in psychotherapy with adolescents, and to address the complexity of an entire session (Calderon...
et al., 2017). The Q-set consists of 100 items designed to describe the psychotherapy process, and it divides it into three different aspects: 1) the young person’s feelings, experience, behavior and attitudes, 2) the therapists’ attitudes and actions, and 3) the nature of the interaction of the dyad. The items describe different aspects of psychotherapeutic process and can be objectively observed from linguistic and behavioral cues. In the coding process, each of the 100 items are placed on a scale from 1) ‘extremely uncharacteristic’ to 9) ‘extremely characteristic.’ A rating of 5 indicates that the item was neither characteristic nor uncharacteristic for the session. Using a forced-choice approach the items are placed in a semi-normal distribution. There is a set manual with clear definitions and examples to help in the rating process (Calderon, Midgley, Schneider, & Target, 2014). The APQ is intended to be neutral in regard to the therapeutic model employed. Studies have found the APQ to have good reliability and validity (Bychkova et al., 2011; Calderon et al., 2017).

**Working Alliance Inventory (WAI-SR)**

WAI (Horvath & Greenberg, 1989) is a measure used to assess the therapeutic alliance. It is based on Bordin’s (1979) definition of alliance, and designed to measure the three components: agreement on the tasks of therapy, agreement on the therapy goals, and development of an affective bond. In FEST-IT the 12-item version Working Alliance Inventory-Short Revised (WAI-SR) (Hatcher & Gillaspy, 2006) is used. In the Norwegian version, items are rated on a 7-point Likert scale ranging from 1) ‘never’ to 7) ‘always.’ The twelve items are evenly distributed, with four questions on each of the three components of the alliance. The total alliance score ranges from 1 – 7 and is found by calculating the average of all scores. The measure is widely used in research and assesses the alliance as perceived by both patient and therapist. WAI-SR is found to have good psychometric properties (Munder, Wilmers, Leonhart, Linster, & Barth, 2010), and correlations with the original WAI suggest that the short form is comparable (Hatcher & Gillaspy, 2006).

**2.3.3 Other measures**

**Parental Bonding Instrument (PBI)**

The Parental Bonding Instrument (Parker, Tupling, & Brown, 1979) is aimed at measuring perceived characteristics of one’s parents, one of the client factors. It is a self-report and
measures two parenting styles in both mother and father, ‘care’ and ‘overprotection.’ The questionnaire consists of 25 questions, 13 items loading on ‘overprotection’ and 12 loading on ‘care.’ The combined score on ‘care’ and ‘overprotection’ assessments allocate parental styles into one of the four categories: affectionless control has low care and high overprotection; affectionate constraint has high care and high overprotection; neglectful parenting has low care and low overprotection; whereas optimal parenting has high care and low overprotection. Cut off scores for ‘high’ and ‘low’ categories are for mothers: a care score of 27.0 and an overprotection score of 13.5, and for fathers: a care score of 24.0 and an overprotection score of 12.5. PBI is found to have satisfactory reliability and validity (Parker, 1989).

**Treatment satisfaction questionnaire**

The treatment satisfaction questionnaire is a self-report, check-box questionnaire, consisting of 3 questions: “How satisfied are you with the treatment you have received?” ranging from 1) “Not satisfied at all,” to 5) “Very satisfied,” “How much do you think you have changed?” ranging from 1) “Nothing has improved or I’m feeling worse,” to 6) “I’m all fine, no more problems,” and “How was treatment terminated?” The last question was not relevant to the present study, and was therefore not included.

**2.4 Data analyses**

**2.4.1 Coding**

The two therapies were coded by two raters (the authors). One rater coded the complete therapy of Johanna, and the other rater coded the complete therapy of Sonja. Some of the sessions in both therapies were coded by both raters in order to ensure reliability, but only the sessions coded by the patient’s primary rater was used in the analysis. The raters were blind to the outcome of the specific therapy during the coding process, but aware that the therapies had different outcomes. The outcomes were revealed to the authors after all sessions were coded.

The raters first listened to the audio recordings of the therapy sessions and took notes while listening. After listening to a session, the session was immediately coded. The coding process for each therapy session took between 2 and 3 hours. The sessions were listened to and coded
in chronological order. The first session of each therapy was considered training and coded by both raters several times in order to ensure agreement. The reliability score of this first session is excluded, and the last version of the coded session is included in the process analyses.

Johanna attended all 28 sessions of therapy. Sonja missed one appointment and attended 27 sessions; two sessions were missing from the sound recordings, and one was only partly recorded, leaving 24 sessions to be included in the analysis.

2.4.2 Handling of data

The coding was done through a website especially designed for coding PQS, CPQ and APQ (Dawson, 2013). The website ensures that the correct number of items is placed on each level. After coding, the material was exported to IBM SPSS version 25 for reliability analysis, and to PQMethod for Q-factor analysis. Microsoft Excel was used for plotting graphs and for calculating average APQ item scores and interaction structure differences.

2.4.3 Reliability

For the APQ coding, reliability was carefully monitored. Reliability checks were conducted frequently to ensure coding stability. Session 2, 3, 4, 6, 10, 12, 18, 22, 26 and 28 of both therapies were coded by both raters to check reliability. 35.7% of Johanna’s sessions and 41.7% of Sonja’s sessions were double coded to ensure reliability, making an average of 38% of their entire treatment. More of the early sessions than of the later sessions were coded by both raters, this to make sure that there were no big discrepancies between the raters in the initial phase. Meetings between the coders were held after each reliability check to discuss disagreements in the coded material. Inter-coder reliability for the APQ ratings was measured by intra-class correlations (ICC), using a two-way mixed consistency model. In the current study, ICCs for the sessions included ranged from 0.66 to 0.92. There are different interpretations of the coefficient, however, many consider coefficients greater than 0.60 as acceptable, and coefficients of 0.70 as very good, consistent with previous reports of satisfactory levels of inter-rater reliabilities (Mitchell, 1979). Others consider ICC values of less than 0.5 to indicate poor reliability; values from 0.5 to 0.75 to indicate moderate reliability; values from 0.75 – 0.90 to indicate good reliability, and values over 0.9 to indicate excellent reliability (Koo & Li, 2016).
2.4.4 Q-factor analysis

Q sorts from all sessions with both patients were merged into one dataset, and a Q-factor analysis was performed using the PQMethod software, version 2.35 (Schmolck, 2008). Principal Component Analysis was used for factor extraction, and varimax for factor rotation. A five-factor solution was used, as this satisfied the Kaiser-Guttman criterion of a minimum eigenvalue of 1.0 (Guttman, 1954; Kaiser, 1960), as well as Brown’s criterion (1980) that each factor estimate should be the composite of at least two and preferably three or more statistically significant and non-confounded Q sorts.

The resulting five factors, or interaction structures, accounted for 68.13% of the variance, had a minimum eigenvalue of 6.25, and had at least three Q sorts per factor that were statistically significant at the 0.01 level and not confounded with another factor. Based on this solution, factor estimates with Z-scores for each APQ item were then computed.

A clinically meaningful name was given to each interaction structure, based on the description of the APQ items with the highest and lowest Z-scores in each factor estimate. A clinical description of the therapist’s and patients’ activities, as well as characteristics of the interaction between them, were also written based on the most and least significant APQ items. Factor loadings for each factor and patient were plotted for each session, to give a visual representation of the level of each interaction structure during the course of the two therapy trajectories. Since 24 sessions were available for analysis from Sonja’s therapy and all 28 were available from Johanna’s, factor loadings for the four missing sessions from Sonja’s therapy were averaged from neighboring loadings. Note that this was done for the visual presentation only; no analysis was performed on these averaged factor loadings.

2.4.5 Interaction structure differences

The APQ items with the highest absolute Z-scores in the factor estimates, describe the primary content of each interaction structure well. To clarify the differences between the two psychotherapies, average differences on APQ item Z-scores between those interaction structures primarily loaded by Johanna’s therapy, and those primarily loaded by Sonja’s, were computed. These average differences were divided into three groups: those describing therapist actions, those describing the patient’s actions, and those describing features of the interaction between them.
3 Results

3.1 The patients at pre-treatment

The patients shared several characteristics at pre-treatment: they were both female, of the same age, and they both lived at home. Both girls lived in the same city in the south-east of Norway and attended high school. Both were diagnosed with Major Depressive Disorder (MDD) in the diagnostic interview, as this was a criterion for inclusion in the FEST-IT study. A more detailed description of the participants follows below:

3.1.1 Johanna

Johanna was 17 at the time she started treatment, and lived together with both her parents and two younger siblings. From descriptions given by Johanna during therapy her family appeared to be of high socioeconomic status. Johanna’s relationship to one of her parents was described in therapy as conflicted, and Johanna perceived this parent as too authoritarian. In the pre-treatment diagnostic interviews, Johanna met the criteria for Major Depressive Disorder, Anorexia and Generalized Anxiety Disorder on M.I.N.I.

On the Parental Bonding Instrument (PBI), Johanna scored the questions regarding the bond to one of her parents to reach the criteria for of ‘high care’ and ‘low overprotection,’ indicating an ‘optimal parenting’-bond. She scored the questions regarding the bond to her other parent to reach the criteria for of ‘low care’ and ‘high overprotection,’ indicating an ‘affectionless control’-bond.

3.1.2 Sonja

Sonja was 17 at the time she started treatment, and lived together with one of her parents and an uncle. During the course of her therapy her uncle became seriously ill. The parent with whom Sonja lived had a drug problem, and the relationship Sonja had to this parent was in therapy described as being full of conflicts as her parent tended to be verbally abusive towards her. She had little to no contact with her other parent. She had an older brother who no longer lived at home but whom she saw frequently. From descriptions given by Sonja in therapy, her family seemed to be of middle to low socioeconomic status.
In the pre-treatment diagnostic interviews, Sonja met the criteria for Major Depressive Disorder and Panic disorder (ongoing) on M.I.N.I.  

On the Parental Bonding Instrument, Sonja scored the questions in regard to the bond to one of her parents to reach the criteria for of ‘low care’ and ‘low overprotection,’ indicating ‘neglectful parenting.’ She scored the questions regarding the bond to her absent parent to reach the criteria for of ‘low care’ and ‘high overprotection,’ indicating ‘affectionless control.’

**3.2 Change in outcome measures**

**Psychodynamic functioning scales**

The main outcome measure in FEST-IT, the psychodynamic functioning scales (PFS), was measured 3 times: 1) at pre-treatment, 2) at post-treatment, immediately after finishing treatment, and 3) at the 1-year follow-up. The pre-treatment and post-treatment ratings were the means of the scores of three raters, while the 1-year follow-up is the score of one rater.

<table>
<thead>
<tr>
<th>PFS Scale</th>
<th>Pre-treatment</th>
<th>Post-treatment</th>
<th>1-year follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>66</td>
<td>72</td>
<td>79</td>
</tr>
<tr>
<td>Friends</td>
<td>77</td>
<td>74</td>
<td>85</td>
</tr>
<tr>
<td>Tolerance for affect</td>
<td>64</td>
<td>75</td>
<td>81</td>
</tr>
<tr>
<td>Insight</td>
<td>68</td>
<td>74</td>
<td>71</td>
</tr>
<tr>
<td>Problem solving</td>
<td>63</td>
<td>74</td>
<td>80</td>
</tr>
<tr>
<td>Mean</td>
<td>68</td>
<td>74</td>
<td>79</td>
</tr>
</tbody>
</table>

In describing the PFS scores, extracts from the PFS manual is used. For complete descriptions, see the manual by Høglend et al. (1997). At the start of her therapy, Johanna’s ‘quality of family relations’ was rated between 61 and 70. In short, this meant that the raters considered that “some of her family relationships experienced as problematic by subject, but may seem normal to others.” A ‘quality of friendships’ score between 71 and 80 meant that the raters considered that she had “Good stable reciprocally rewarding relationships, and problems of short durations, or limited to one person.” In ‘tolerance of affect’ a score between 61 and 70 meant that raters considered that “severe disappointments may lead to mild
symptoms, some avoidance, restricted experience and less differentiation.” On ‘insight’ a score between 61 and 70 meant that the raters considered that Johanna “recognizes but can not clearly describe the complex association between past experience, inner conflict and present problems and repetitive patterns.” On ‘problem solving and adaptive capacity’ a score between 61 and 70 meant that it was considered that she was “sometimes anxious or depressed in critical situations. Occasional inadequate actions in response to stress.”

As can be seen from the table, Johanna was rated as having gained an increased function on all scales at the one-year follow-up. ‘Quality of family relations’ was rated between 71 and 80, meaning that the raters considered that she had “good stable reciprocally rewarding relationships with family. Problems of short duration or limited to one family member.” A ‘quality of friendships’ score between 81 and 90 meant that the raters considered that she had “Warm, open and reciprocally rewarding relationships with friends.” On ‘tolerance of affect’ a score between 81 and 90 meant that raters considered that “even strong affects are well differentiated and flexibly expressed.” On ‘insight’ a score between 71 and 80 meant that the raters considered that Johanna “can account for most important inner conflicts, related problems and repetitive behavior patterns, and personal attitudes. Connections to earlier experiences might be forgotten.” On ‘problem solving,’ a score between 71 and 80 meant that it was considered that she “may occasionally feel anxious or tend to avoid critical situations.”

The PFS scores for Sonja will be presented next.

### Table 2. PFS scores for Sonja.

<table>
<thead>
<tr>
<th>PFS Scale</th>
<th>Pre-treatment</th>
<th>Post-treatment</th>
<th>1-year follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family</td>
<td>60</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td>Friends</td>
<td>76</td>
<td>70</td>
<td>69</td>
</tr>
<tr>
<td>Tolerance for affect</td>
<td>55</td>
<td>55</td>
<td>59</td>
</tr>
<tr>
<td>Insight</td>
<td>60</td>
<td>61</td>
<td>61</td>
</tr>
<tr>
<td>Problem solving</td>
<td>57</td>
<td>57</td>
<td>54</td>
</tr>
<tr>
<td>Mean</td>
<td>62</td>
<td>59</td>
<td>59</td>
</tr>
</tbody>
</table>

At the start of therapy Sonja’s ‘quality of family relations’ was rated between 51 and 60. In short this meant that the raters considered Sonja to have “A tendency to take controlling and/or submissive roles in family. Limited experience of warmth, openess, gratifications and trust.” On ‘quality of friendships,’ a score between 71 and 80 meant that the raters considered
her to have “Good stable reciprocally rewarding relationships, and problems of short durations, or limited to one person.” On ‘tolerance of affect’ a score between 51 and 60 meant that raters considered that “Disappointments relatively often lead to restriction or denial of affects, outbursts or passive complaining, or symptoms, and less differentiation of feelings.” On ‘insight,’ a score between 51 and 60 meant that the raters considered that Sonja’s “understanding of inner conflicts and associations to past and present experiences and behavior is somewhat unclear, or less emotionally integrated or ‘learned.’ Inadequate judgement of self and others but ability to observe and reflect with time.” On ‘problem solving and adaptive capacity’ a score between 51 and 60 meant that she was considered to “develop symptoms, avoids or acts inappropriately (aggressively or submissively) in critical and difficult situations or fails to pursue meaningful goals.”

At the one-year follow-up, ‘quality of family relations’ had decreased but was still within the same descriptive level. ‘Quality of friendships’ had decreased to a score between 61 and 70, which meant that the raters considered that “Some relationships experienced as problematic by subjects, but may seem normal to others.” On ‘tolerance of affect’ the score had increased but was still within the same descriptive level. On ‘insight’ the score had increase by one point meaning that raters considered that she “recognizes but can not clearly describe the complex association between past experience, inner conflict and present problems and repetitive patterns.” On ‘problem solving’ the ratings showed a slight decrease, but were still within the same descriptive category.

**Symptom measures**

Table 3. MADRS and BDI scores for Johanna and Sonja

<table>
<thead>
<tr>
<th></th>
<th>Johanna</th>
<th></th>
<th>Sonja</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MADRS</td>
<td>BDI</td>
<td>MADRS</td>
<td>BDI</td>
</tr>
<tr>
<td>Pre-treatment</td>
<td>32</td>
<td>37</td>
<td>20</td>
<td>35</td>
</tr>
<tr>
<td>Session 12</td>
<td>10</td>
<td>26</td>
<td>25</td>
<td>31</td>
</tr>
<tr>
<td>Session 20</td>
<td>3</td>
<td>13</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Session 28</td>
<td>8</td>
<td>5</td>
<td>19</td>
<td>X</td>
</tr>
<tr>
<td>Follow-up</td>
<td>2</td>
<td>4</td>
<td>8</td>
<td>18</td>
</tr>
</tbody>
</table>

Table 3 shows the development in the two patients’ scores on BDI and MADRS. The BDI scores from Sonja’s 28th session were unfortunately missing from the material. Both patients
showed a decrease in the subjective measure BDI during treatment. In the follow-up Sonja’s scores had increased and was only one score below her initial rating at pre-treatment, indicating moderate depression, while Johanna’s score was indicating normal mood.

On MADRS Johanna’s scores were decreasing until the 20th session but increased from the 20th to the 28th session. Sonja’s scores increased from pre-treatment to session 12, then decreased, before increasing again on the last session. In the follow-up, the MADRS score had continued to decrease, this in contrast to Sonja’s subjective ratings on BDI.

**Working Alliance Inventory (WAI-SR)**

WAI-SR was used to measure the alliance four times during the treatment. The table below shows the average score of the ratings given by both patient and therapist in both therapies.

<table>
<thead>
<tr>
<th>Session</th>
<th>Johanna Patient</th>
<th>Johanna Therapist</th>
<th>Sonja Patient</th>
<th>Sonja Therapist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 3</td>
<td>6.25</td>
<td>6.42</td>
<td>5.17</td>
<td>5.00</td>
</tr>
<tr>
<td>Session 12</td>
<td>6.08</td>
<td>6.75</td>
<td>5.50</td>
<td>4.25</td>
</tr>
<tr>
<td>Session 20</td>
<td>5.67</td>
<td>6.25</td>
<td>5.08</td>
<td>5.50</td>
</tr>
<tr>
<td>Session 28</td>
<td>6.50</td>
<td>6.67</td>
<td>5.67</td>
<td>4.75</td>
</tr>
</tbody>
</table>

When reviewing the patients’ subscale ratings on the WAI-SR, the largest difference was on the ‘agreement on task’ – subscale, where Johanna’s average rating was 6.63 and Sonja’s rating was 5.06.

When reviewing the therapist’s subscale ratings on WAI-SR, the largest difference was on the ‘agreement on goal’ – subscale, with an average rating of 6.44 in Johanna’s sessions, and 4.38 in Sonja’s sessions. Furthermore, the therapist scored the goal item “I have doubts about what we are trying to accomplish in therapy” as 6) ‘very often’ after sessions 12, 20 and 28, in contrast to his consistently low scores on this question in Johanna’s therapy.

**Treatment satisfaction**

Immediately after treatment Johanna reported that she was ‘very satisfied’ with the treatment she had received, and that she felt that therapy ‘had a big impact on her, and she only had a
few problems left.’ At the one-year follow-up interview she was still ‘very satisfied’ with the treatment, and reported that she ‘did not have any more problems.’

Immediately after treatment Sonja reported that she was ‘satisfied’ with the treatment she had received, and that therapy ‘had changed her a lot, but she still had some unsolved problems.’ At the one-year follow-up interview she reported that she was ‘somewhat satisfied’ with the therapy and reported that ‘nothing had improved/was feeling worse.’

### 3.3 Process measures

#### 3.3.1 Inter-rater reliability of the APQ codes

The average reliability of Johanna’s sessions was >0.8; and the average of Sonja’s sessions was >0.7. The reliability ranged from 0.79 – 0.92 in Johanna’s sessions and from 0.66 – 0.89 in Sonja’s sessions. In all reliability sessions, except for session 18, the inter-rater reliability of Johanna’s sessions was higher than Sonja’s sessions.

#### 3.3.2 Therapy process descriptors

The most and least characteristic items of the two therapies were identified. APQ item mean scores for all the 100 items were calculated in order to find items that could describe the full therapy process of the two patients. Individual item placements for each session were used. An item scored as characteristic means that it is frequently and saliently present. An item scored as uncharacteristic, does not only mean that it is not present in therapy, but that raters considered it to be conspicuously absent and explicitly ‘missing.’

In the following tables, ‘T’ is used as an abbreviation for ‘Therapist,’ ‘YP’ as an abbreviation for ‘Young person,’ and an ‘a’ is used to indicate that this item is one of the ten most or least characteristic in both therapies. In all tables, APQ item descriptions were taken from the APQ manual (Calderon et al., 2014).
Table 5. Rank ordering of most characteristic APQ items for Johanna.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>YP describes emotional qualities of the interactions with significant others</td>
<td>8.79&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>9</td>
<td>T works with YP to try to make sense of experience</td>
<td>8.14&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>31</td>
<td>T asks for more information or elaboration</td>
<td>8.00&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>63</td>
<td>YP discusses and explores current interpersonal relationships</td>
<td>7.89&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>8</td>
<td>YP expresses feelings of vulnerability</td>
<td>7.82</td>
</tr>
<tr>
<td>35</td>
<td>Self-image is a focus of the session</td>
<td>7.64&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>97</td>
<td>T encourages reflection on internal states and affects</td>
<td>7.50</td>
</tr>
<tr>
<td>54</td>
<td>YP is clear and organized in self-expression</td>
<td>7.18</td>
</tr>
<tr>
<td>68</td>
<td>T encourages YP to discuss assumptions and ideas underlying experience</td>
<td>7.14</td>
</tr>
<tr>
<td>60</td>
<td>T draws attention to YP's characteristic ways of dealing with emotion</td>
<td>7.07</td>
</tr>
<tr>
<td>40</td>
<td>YP communicates with affect</td>
<td>7.07&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

Table 6. Rank ordering of least characteristic APQ items for Johanna.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>44</td>
<td>YP feels wary or suspicious of the T</td>
<td>1.11&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>15</td>
<td>YP does not initiate or elaborate topics</td>
<td>1.18&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>14</td>
<td>YP does not feel understood by T</td>
<td>1.21&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>42</td>
<td>YP rejects T's comments and observations</td>
<td>1.21&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>58</td>
<td>YP resists T's attempts to explore thoughts, reactions, or motivations rel. to problems</td>
<td>1.54</td>
</tr>
<tr>
<td>53</td>
<td>YP discusses experiences as if distant from his feelings</td>
<td>1.71&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>87</td>
<td>YP is controlling of the interaction with T</td>
<td>1.75</td>
</tr>
<tr>
<td>67</td>
<td>YP finds it difficult to concentrate or maintain attention during the session</td>
<td>2.25</td>
</tr>
<tr>
<td>5</td>
<td>YP has difficulty understanding T's comments</td>
<td>2.39</td>
</tr>
<tr>
<td>10</td>
<td>YP displays feelings of irritability</td>
<td>2.43</td>
</tr>
<tr>
<td>100</td>
<td>T draws connections between the therapeutic relationship and other relationships</td>
<td>2.61&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

Table 5 and 6 show that the mean APQ item ratings of Johanna’s sessions ranged from 8.79 to 1.11. The tables show the overall themes and focus of her therapy.
Table 7. Rank ordering of most characteristic APQ items for Sonja.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>63</td>
<td>YP discusses and explores current interpersonal relationships</td>
<td>8.08</td>
</tr>
<tr>
<td>31</td>
<td>T asks for more information or elaboration</td>
<td>7.92</td>
</tr>
<tr>
<td>6</td>
<td>YP describes emotional qualities of the interactions with significant others</td>
<td>7.88</td>
</tr>
<tr>
<td>9</td>
<td>T works with YP to try to make sense of experience</td>
<td>7.88</td>
</tr>
<tr>
<td>35</td>
<td>Self-image is a focus of the session</td>
<td>7.42</td>
</tr>
<tr>
<td>16</td>
<td>YP fears being punished or threatened</td>
<td>6.96</td>
</tr>
<tr>
<td>39</td>
<td>T encourages YP to reflect on symptoms</td>
<td>6.92</td>
</tr>
<tr>
<td>92</td>
<td>YP's feelings or perceptions are linked to situations or behavior of the past</td>
<td>6.92</td>
</tr>
<tr>
<td>80</td>
<td>T presents an experience or event from a different perspective</td>
<td>6.83</td>
</tr>
<tr>
<td>40</td>
<td>YP communicates with affect</td>
<td>6.83</td>
</tr>
<tr>
<td>56</td>
<td>Material from a prior session is discussed</td>
<td>6.79</td>
</tr>
</tbody>
</table>

Table 8. Rank ordering of least characteristic APQ items for Sonja.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>98</td>
<td>The therapy relationship is a focus of discussion</td>
<td>1.92</td>
</tr>
<tr>
<td>15</td>
<td>YP does not initiate or elaborate topics</td>
<td>2.00</td>
</tr>
<tr>
<td>12</td>
<td>Silences occur during the session</td>
<td>2.17</td>
</tr>
<tr>
<td>23</td>
<td>YP is curious about the thoughts, feelings, or behavior of others</td>
<td>2.38</td>
</tr>
<tr>
<td>44</td>
<td>YP feels wary or suspicious of the T</td>
<td>2.58</td>
</tr>
<tr>
<td>88</td>
<td>YP fluctuates between strong emotional states during the session</td>
<td>2.71</td>
</tr>
<tr>
<td>100</td>
<td>T draws connections between the therapeutic relationship and other relationships</td>
<td>3.17</td>
</tr>
<tr>
<td>17</td>
<td>T actively structures the session</td>
<td>3.21</td>
</tr>
<tr>
<td>14</td>
<td>YP does not feel understood by T</td>
<td>3.21</td>
</tr>
<tr>
<td>42</td>
<td>YP rejects T's comments and observations</td>
<td>3.29</td>
</tr>
<tr>
<td>53</td>
<td>YP discusses experiences as if distant from his feelings</td>
<td>3.42</td>
</tr>
</tbody>
</table>

Table 7 and 8 show that the mean APQ item ratings of Sonja’s sessions ranged from 8.08 to 1.92. The tables show the overall themes and focus of her therapy.

It can be seen that many of the same APQ items were among the most or least characteristic in both Johanna’s and Sonja’s therapy. This appears to show that, on average, the therapies had many similarities. However, there are several notable differences, which will become more apparent in reviewing the interaction structure differences.
3.4 Interaction structures

Using Q-factor analysis, five factors, or interaction structures, were extracted from the Q-sorts. Each interaction structure is presented using a graph showing how its expression varies over the sessions, and a clinically meaningful description based on the most prominent APQ items in each factor estimate. These item descriptions are used to create a fluid narrative of the interaction structures.

When analyzing the material, the therapies have been divided into an initial phase, a working phase and a termination phase. The initial phase includes the first five therapy sessions, the termination phase includes the last five therapy sessions, and the working phase consists of the remaining sessions between the initial and termination phases.

3.4.1 Factor 1 – Making sense of relationships

This factor explains the largest fraction of total variance of all five factors, 26.2% out of a total of 68.1%. As can be clearly seen from the graph, Johanna’s sessions almost consistently load higher on this factor than Sonja’s. Over the course of the therapies Johanna’s sessions load this factor 2.1 times as much as Sonja’s do.

Figure 1. Session loadings on ‘Making sense of relationships.’
In this interaction structure, the young person initiates and elaborates topics (15), describes emotional qualities of the interaction with significant others (6), seems to be trusting and unsuspicious of the therapist (44), takes on board the therapist’s remarks and gives them due consideration (42), feels understood by the therapist (14), discusses and explores interpersonal relationships (63), goes along with the therapist’s attempts to explore thoughts, reactions, or motivations connected to her difficulties (58), the therapist works with the young person to try to make sense of experience (9), asks for more information or elaboration (31), and encourages reflection on internal states and affects (97).

### 3.4.2 Factor 2 – Working with anger and vulnerability

Explaining 12.0% out of a total of 68.1% of the total variance, this factor is the second largest of the five. This factor also clearly differentiates between the two therapies. Except for the initial phase, Johanna’s sessions have a higher average loading, with a ratio of 1.8 over the entire therapy and a ratio of 3.0 during the working phase.

![Figure 2. Session loadings on ‘Working with anger and vulnerability.’](image)

In this interaction structure, the young person describes emotional qualities of the interaction with significant others (6), seems to be trusting and unsuspicious of the therapist (44), the therapist draws attention to the young person’s characteristic ways of dealing with emotion...
(60), the young person feels understood by the therapist (14), is calm and composed, even when then the therapist may be exploring an anxiety-provoking subject or in any other way behaves in a way that might be challenging for the young person (10), initiates or elaborates topics (15), takes on board the therapist’s remarks and gives them due consideration (42), expresses angry or aggressive feelings (84), links or salient connections are made between the young person’s current emotional experience or perception of events with those of the past (92), and the young person expresses feelings of vulnerability (8).

3.4.3 Factor 3 – Fragile self-image

This factor explains 11.0% of the total variance. This factor is on average loaded higher by Johanna’s sessions, a ratio of 2.1 compared to Sonja’s over the course of the therapies. As can be seen, this difference is most pronounced during the working phase of the therapies (the middle 18 sessions for Johanna and the middle 14 for Sonja), with an average ratio of 3.0 compared to Sonja’s.

![Figure 3. Session loadings on ‘Fragile self-image.’](image)

In this interaction structure, self-image is a focus of the session (35), the young person goes along with the therapist’s attempts to explore thoughts, reactions, or motivations connected to her difficulties (58), does not exert control over the interaction with the therapist (87), feels
inadequate and inferior (59), feels understood by the therapist (14), seems to be trusting and unsuspicuous of the therapist (44), the therapist or the young person does not focus on the relationship or interaction between the two of them (98), the therapist works with the young person to try to make sense of experience (9) and asks for more information or elaboration (31), and the young person feels shy or self-conscious (61).

### 3.4.4 Factor 4 – Fearful, but suppressed

This factor explains 10.4% of the total variance. Sonja’s sessions typically load higher on this factor during the course of the therapy, a ratio of 2.2 compared to Johanna’s. This difference in factor loadings is particularly pronounced during the termination phase of the therapy, with an average ratio over the last 5 sessions of 6.1 compared to Johanna’s.

![Figure 4. Session loadings on ‘Fearful, but suppressed.’](image)

In this interaction structure, the therapist tends not to emphasize feelings that the young person finds difficult to recognize or accept (50), the young person describes emotional qualities of the interaction with significant others (6), initiates and elaborates topics (15), fears being punished or threatened (16), does not seem curious about the thoughts, feelings and behaviors of others (23), discusses and explores current interpersonal relationships (63), feels rejected or abandoned (41), feels unfairly treated (55), the therapist or the young person does
not focus on the relationship or interaction between the two of them (98), and there are few silences (12).

### 3.4.5 Factor 5 – Working with low mentalization

In terms of explained variance, this is the smallest of the five factors, explaining 8.6% of the total. On average, Sonja’s sessions load this factor 1.9 times higher than Johanna’s. This is especially pronounced during the working phase, with a ratio of 2.5, but reverses during the termination phase with a ratio of 0.6.

![Figure 5. Session loadings on ‘Working with low mentalization.’](image)

In this interaction structure, the therapist works with the young person to try to make sense of experience (9), the young person does not evidence the capacity to link mental states of self or others with action or behavior (24), the therapist or the young person does not focus on the relationship or interaction between the two of them (98), the therapist expresses opinions, or takes positions either explicitly or by implication (93), asks for more information or elaboration (31), the young person seems to be trusting and unsuspicious of the therapist (44), the therapist raises questions about the young person’s view of an experience or event (99), the young person discusses and explores current interpersonal relationships (63), self-image is
a focus of the session (35), and talk of interruptions in treatment or endings seem to be avoided (75).

### 3.5 Interaction structure differences

The following tables show the average difference on APQ item Z-scores between those interaction structures primarily loaded by Johanna’s therapy, and those primarily loaded by Sonja’s. A positive difference indicates that this APQ item on average was larger (more characteristic) in those interaction structures primarily loaded by Johanna’s therapy, that is, that this feature of the therapeutic process was more evident in her therapy than in Sonja’s. In the following tables ‘T’ is used as abbreviation for ‘Therapist’ and ‘YP’ as an abbreviation for ‘Young person.’ APQ item descriptions are taken from the APQ manual (Calderon et al., 2014).

Table 9. Interaction structure differences on APQ Items describing patient/therapist interaction.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>58</td>
<td>YP resists T’s attempts to explore thoughts, reactions, or motivations related to problems</td>
<td>-2.52</td>
</tr>
<tr>
<td>87</td>
<td>YP is controlling of the interaction with T</td>
<td>-2.07</td>
</tr>
<tr>
<td>42</td>
<td>YP rejects T’s comments and observations</td>
<td>-1.68</td>
</tr>
<tr>
<td>60</td>
<td>T draws attention to YP’s characteristic ways of dealing with emotion</td>
<td>1.56</td>
</tr>
<tr>
<td>14</td>
<td>YP does not feel understood by T</td>
<td>-1.52</td>
</tr>
<tr>
<td>97</td>
<td>T encourages reflection on internal states and affects</td>
<td>1.42</td>
</tr>
<tr>
<td>96</td>
<td>T attends to the YP’s current emotional states</td>
<td>1.40</td>
</tr>
<tr>
<td>100</td>
<td>T draws connections between the therapeutic relationship and other relationships</td>
<td>-0.83</td>
</tr>
<tr>
<td>12</td>
<td>Silences occur during the session</td>
<td>0.81</td>
</tr>
<tr>
<td>62</td>
<td>T identifies a recurrent pattern in YP’s behavior or conduct</td>
<td>0.69</td>
</tr>
<tr>
<td>5</td>
<td>YP has difficulty understanding T’s comments</td>
<td>-0.66</td>
</tr>
<tr>
<td>38</td>
<td>T and YP demonstrate a shared understanding when referring to events or feelings</td>
<td>0.59</td>
</tr>
<tr>
<td>98</td>
<td>The therapy relationship is a focus of discussion</td>
<td>0.58</td>
</tr>
<tr>
<td>56</td>
<td>Material from a prior session is discussed</td>
<td>-0.55</td>
</tr>
<tr>
<td>44</td>
<td>YP feels wary or suspicious of the T</td>
<td>-0.54</td>
</tr>
</tbody>
</table>

It can be seen that the interaction between patient and therapist in Johanna’s therapy showed less resistance, control and rejection by the patient than in Sonja’s therapy, and that Johanna appeared to feel more understood by the therapist and less suspicious of him. In Johanna’s therapy the therapist also encouraged more reflection, focused more on her characteristic
ways of dealing with emotions as well as her emotional states in session, and was more able to identify recurrent patterns in her conduct.

Table 10. Interaction structure differences on APQ items describing therapist actions.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>T’s remarks are aimed at facilitating YP’s speech</td>
<td>-1.44</td>
</tr>
<tr>
<td>50</td>
<td>T draws attention to feelings regarded by YP as unacceptable</td>
<td>1.33</td>
</tr>
<tr>
<td>75</td>
<td>T pays attention to YP’s feelings about breaks, interruptions or endings in therapy</td>
<td>1.30</td>
</tr>
<tr>
<td>93</td>
<td>T refrains from taking position in relation to YP’s thoughts or behavior</td>
<td>1.05</td>
</tr>
<tr>
<td>77</td>
<td>T encourages YP to attend to somatic feelings or sensations</td>
<td>-0.94</td>
</tr>
<tr>
<td>85</td>
<td>T encourages YP to try new ways of behaving with others</td>
<td>0.73</td>
</tr>
<tr>
<td>80</td>
<td>T presents an experience or event from a different perspective</td>
<td>-0.68</td>
</tr>
<tr>
<td>39</td>
<td>T encourages YP to reflect on symptoms</td>
<td>-0.62</td>
</tr>
<tr>
<td>48</td>
<td>T encourages independence in the YP</td>
<td>0.54</td>
</tr>
<tr>
<td>89</td>
<td>T makes definite statements about what is going on in the YP’s mind</td>
<td>-0.54</td>
</tr>
<tr>
<td>81</td>
<td>T reveals emotional responses</td>
<td>-0.52</td>
</tr>
</tbody>
</table>

This table shows that the therapist with Sonja used more remarks aimed at facilitating her speech, he attended more to her somatic feelings and sensations, he tended to present events from a different perspective, he focused more on her symptoms, made more definite statements about what was going on in her mind, and revealed more emotional responses. With Johanna, he drew more attention to feelings regarded by her as unacceptable, paid more attention to her feelings about interruptions and endings, refrained from making his position relative to her thoughts and behavior evident, and encouraged her to try new ways of behaving with others and to be more independent.
Table 11. Interaction structure differences on APQ items describing patient actions and experiences.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>10</td>
<td>YP displays feelings of irritability</td>
<td>-2.25</td>
</tr>
<tr>
<td>24</td>
<td>YP demonstrates capacity to link mental states with action or behavior</td>
<td>1.91</td>
</tr>
<tr>
<td>8</td>
<td>YP expresses feelings of vulnerability</td>
<td>1.90</td>
</tr>
<tr>
<td>23</td>
<td>YP is curious about the thoughts, feelings, or behavior of others</td>
<td>1.35</td>
</tr>
<tr>
<td>32</td>
<td>YP achieves a new understanding</td>
<td>1.27</td>
</tr>
<tr>
<td>29</td>
<td>YP talks about wanting to be separate or autonomous from others</td>
<td>1.19</td>
</tr>
<tr>
<td>84</td>
<td>YP expresses angry or aggressive feelings</td>
<td>-1.06</td>
</tr>
<tr>
<td>67</td>
<td>YP finds it difficult to concentrate or maintain attention during the session</td>
<td>-1.00</td>
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<tr>
<td>34</td>
<td>YP blames others or external forces for difficulties</td>
<td>-0.95</td>
</tr>
<tr>
<td>61</td>
<td>YP feels shy or self-conscious</td>
<td>0.93</td>
</tr>
<tr>
<td>26</td>
<td>YP experiences or expresses troublesome (painful) affect</td>
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</table>

It can be seen that Sonja showed more irritation and expressed more anger in her sessions than Johanna, that she found it more difficult to concentrate or maintain attention in sessions, and that she tended to blame others or external forces for her difficulties more than Johanna did. Johanna was more curious about others and more capable of mentalizing both others and herself, she expressed more vulnerability, achieved a greater understanding, expressed a greater desire for autonomy, was more self-conscious and expressed more painful affect.

To sum up, the results show that the two girls had similar characteristics at pretreatment. Both had additional diagnoses to MDD. Information from therapy gave an impression of their socioeconomic status being different. Both had some difficulties related to their parents. At the start of treatment both experienced moderate difficulties on several of the PFS scales, and BDI and MADRS showed that their symptom levels were quite high. Throughout therapy the outcome measures showed an improvement in Johanna’s functioning measured by PFS, while Sonja showed a slight decrease. Both experienced a reduction in depressive symptoms.

APQ analyses show that on average the therapies share many features, but also important differences on both the characteristic and uncharacteristic side of the scale. The interaction structures also show differences between the therapies, as three were mainly loaded by one of the therapies while two were mainly loaded by the other. An additional comparative analysis of the most prominent differences between the interaction structures showed more clearly the differences between the two therapies, and that these are present in items regarding the interaction between therapist and patient, the therapist items and the patient items.
4 Discussion

As highlighted in the literature, systematic case studies are useful for investigating processes that occur in therapy and the interactions that take place between therapist and client, and to investigate potential mechanism of change (Fishman & Edwards, 2017; J. McLeod, 2010). The primary aim of this study was to use the Adolescent Psychotherapy Q-Set (APQ) to illustrate and examine how different interaction structures between therapist and patient can elucidate the processes in two adolescent psychotherapies, and assess the similarities and differences between them, with the goal of identifying specific processes or interactions associated with different outcomes, i.e. one good outcome and one no change/poor outcome case. The interaction structures represent distinct patterns of patient-therapist interaction that characterized the psychotherapy (Jones, 2000).

In the following we will use the results from the APQ analyses to compare the two patients’ treatment course, and their treatment processes, and discuss how different aspects related to the therapy process may explain the differences in outcome between the two.

4.1 Interaction structures throughout the therapy

Many of the themes, client contributions and therapist contributions seemed to be similar when reviewing the two therapies as whole. However, the analysis showed that the interaction structures could roughly be divided between each of the two therapies. Of the five interaction structures extracted, three of the factors: Making sense of relationships, Working with anger and vulnerability and Fragile self-image were particularly representative of Johanna’s therapy, which turned out to have a good outcome, while the two interaction structures: Fearful, but suppressed and Working with low mentalization mainly represented Sonja’s therapy, which turned out to have poor outcome. The content of the interaction structures gave a global description of Johanna’s treatment as being based on cooperation and trust of her therapist. Common for the three factors primarily representing her sessions was that the patient felt both understood by the therapist, and seemed to be trusting and unsuspicious of him. The interaction structures gave an impression of a therapist working within the psychodynamic principles presented by Shedler (2010), with a patient who allowed him to do so. The structures suggested that there was a general focus on interpersonal relationships throughout most of Johanna’s therapy. Furthermore, the interaction structures gave an
impression that the themes focused on in the sessions varied, but the therapeutic bond and approach were stable. Through the initiation phase and the first half of the working phase the interaction structures Making sense of relationships and Fragile self-image were particularly representative of the interaction between Johanna and the therapist, giving an impression of Johanna as willing to open up in therapy even if this may have made her feel shameful and self-conscious. Towards the end of therapy, Johanna seemed to be more in touch with anger and vulnerability, and the therapist appeared in this phase to explicitly work with her emotions and drew connections to how her current emotional experiences could be linked to those of the past. This shift in focus towards the end can be explained by external events making anger and vulnerability more accessible, but can also be seen as the result of a good foundation making these emotions more acceptable for the client.

The global description of Sonja’s therapy was that she in the start of therapy showed limited mentalization, and the therapist seemed in this matter to become more active in both expressing his personal opinions as well as exploring Sonja’s views and experiences. In the mid working phase, the interaction structures indicated that the alliance seemed to have evolved, and that the therapy relationship was more cooperative, as her sessions in this phase to a large degree was represented by the Making sense of relationships – factor. Towards the end of therapy, the patient focused on difficult relationships in which she feared being mistreated or felt rejected. The therapist seemed to neglect to emphasize feelings that the patient found difficult to accept, and the patient did not seem curious about the thoughts and feelings of others. The trajectory of Sonja’s therapy seemed to be highly impacted by her difficult living situation, where conflicts with her parent happened frequently. Towards the end of Sonja’s therapy, she also experienced her uncle becoming severely ill. These life events seemed to affect her therapeutic change, in line with findings of psychotherapies with adolescents being different as adolescents are more influenced by the stress of living at home (Weisz et al., 2013). Although both adolescents lived at home, Johanna’s family environment was quite different from Sonja’s. Johanna did have a complicated relationship with one of her parents but had the support of the other parent. Sonja, however, lived with only one parent with whom she had a very difficult relationship, while the other parent was absent. These differences might have impacted how they related to therapy and in particular how they related to the therapist in therapy, as will be discussed further in the section on client differences.
In general, the interaction structures were expressed at different levels in the two psychotherapies, indicating differences between them. It may be argued that this should be expected, as the patients in the therapies were quite different from each other, although similar on some set of characteristics. However, the way the therapies differ from another is caused not only by the clients’ contribution, but also the therapist’s contribution, which leads us to examine further what happened in the two therapies with regards to the quality of the working alliance as rated by both participants.

4.2 Examining the alliance using interaction structures

In the present study, the working alliance was rated by both therapist and client after sessions 3, 12, 20 and 28 of the treatment, using the Working Alliance Inventory-Short Revised (WAI-SR) (Hatcher & Gillaspy, 2006). Johanna’s working alliance was on average rated higher by both herself and the therapist when compared to Sonja’s working alliance scores. It may be of particular relevance that the difference in the therapist’s ratings was larger than the difference in the clients’ ratings, as some research indicates that with adolescent clients the therapists’ rating may be a stronger predictor of positive outcome than the clients’ rating, contrary to the common finding with adult clients (Hughes & Kendall, 2007).

At the time of publication of the present study, no research had been done on the correlation between APQ items and working alliance measures or scales, so the following discussion will be limited to the clinical judgment of the authors on the potential similarities between APQ items and dimensions or scales of the Working Alliance Inventory.

Our results show that the three largest differences on interaction items between interaction structures primarily expressed in Johanna’s therapy and those primarily expressed in Sonja’s therapy were “Young person resists therapist’s attempts to explore thoughts, reactions, or motivations related to problems,” “Young person is controlling of the interaction with therapist” and “Young person rejects therapist’s comments and observations,” with all items having a lower average score in the interaction structures typical of Johanna’s sessions. This would seem to indicate that Johanna and the therapist had achieved a larger agreement on the task dimension of the working alliance, where Johanna to a larger extent than Sonja tended to go along with the therapist’s attempts to explore thoughts, reactions or motivations connected
to her difficulties, she did not exert control over the therapist but worked with him in a more collaborative manner, and tended to take on board the therapist’s remarks and gave them due consideration. Our results also show that the item “Young person displays feelings of irritability” was rated on the characteristic side in the interaction structures typical of Sonja’s therapy, but rated towards the uncharacteristic end of the scale in those typical of Johanna’s. This item is rated characteristic when the client responds with irritation when the therapist explores anxiety-provoking subjects or in any other way behaves in a manner that is challenging for the client. This could also indicate a larger agreement by Johanna and the therapist on the tasks of the therapy, as it could mean that Johanna had a greater sense of this activity by the therapist as being a necessary part of her therapy. The differences between interaction structures also showed that Johanna expressed more feelings of vulnerability and more painful affect than Sonja, a central task in psychodynamic therapy (Shedler, 2010). These differences between the interaction structures appears to be compatible with the patients’ scores on the task subscale of the WAI-SR, with Johanna’s score being the largest of her three sub-scale scores, while Sonja’s score was the smallest of hers.

Furthermore, the fifth largest interaction item difference was the item “Young person does not feel understood by therapist,” which also had a lower average score in the interaction structures typical of Johanna’s sessions. What must be said to be remarkable here is the fact that the average score on this item in Johanna’s sessions was just 1.21, indicating that for the majority of her sessions this item was scored as extremely uncharacteristic. A further difference was found on the item “Young person feels wary or suspicious of the therapist.” Even though the difference here was much smaller, it is again notable that the average score on this item in Johanna’s sessions was just 1.11. This would appear to indicate that Johanna experienced a profound sense of trust towards and understanding from the therapist, an indication of a very strong therapeutic bond between them (Bordin, 1979).

One fascinating aspect of the present study is the therapist’s rating of the goal dimension on WAI-SR in his sessions with Sonja. His average rating on this sub-scale is the lowest of his three sub-scale scores, and furthermore, after sessions 12, 20 and 28 he scored the statement “I have doubts about what we are trying to accomplish in therapy” 6 (very often). However, this does not appear to have increased his focus on Sonja’s treatment goals, as the score on the item “Young person’s treatment goals are discussed” were actually higher in the initiation phase than in the working or termination phases of the therapy. One may only speculate about
this apparent mismatch, however it does seem plausible that if Sonja was randomized to the ‘no transference’ – condition, as the scores seemed to indicate she was, this might have served not only to limit the therapist’s use of transference interpretations, but might also have restrained him from examining his patient’s experience of the therapeutic work and the possible directions for it.

4.3 Client differences in the interaction structures

Psychotherapy research with adult clients have shown that client factors are the best predictors of outcome in psychotherapy (Orlinksy, Grawe, & Parks, 1994). However, there is a definite paucity of research on client factors in youth psychotherapy (Kelley et al., 2010). Hence, it is especially relevant to examine what the interaction structures and the differences between them can tell us about how the processes in their therapies were influenced by each individual’s characteristics.

The second largest difference in patient items when comparing the interaction structures typical of Johanna’s therapy with those of Sonja’s was on the item “Young person demonstrates capacity to link mental states with action or behavior,” an item measuring the young person’s ability to mentalize herself and others. It can be seen that in those interaction structures primarily expressed in Sonja’s therapy this item was on average coded towards the uncharacteristic end of the scale, indicating that her capacity for mentalization might have been limited, at least, relative to Johanna’s. It may be possible that Sonja’s apparently somewhat limited capacity for mentalization made it difficult for her to understand herself in relation to others, both in session with the therapist and in her social relationships outside therapy. This could have impeded how effective her therapy was in identifying and working with central themes that underlay her difficulties, and the working alliance through which this work was to be done.

It is considered that a person’s capacity for mentalization is developed through his or her attachment to primary caregivers (Fonagy et al., 2011; Liotti & Gilbert, 2011). However, Sonja’s family environment in her childhood may not have been adequately safe and supportive to allow her to develop a secure attachment. As was shown on the Parental Bonding Instrument, she rated the bond to the parent with which she lives as indicating ‘neglectful parenting.’ This parent had a drug problem and could be verbally abusive to her.
Her other parent left when Sonja was very young and was not present in her formative years. Sonja’s relationship to the parent she lived with was described in her sessions as being deeply ambivalent; she could at one time express profound anger and hatred towards the parent, and at another express warmth and sympathy. A similar ambivalence was apparent in her interactions with the therapist. The average reliability on the coding of Sonja’s sessions was somewhat lower than on Johanna’s. In discussions between the authors on disagreement between APQ item ratings, it was a frequent topic that disagreements were not caused by different views on how items should be coded, but by a deep ambivalence in Sonja’s manner of relating to her therapist that appeared to make both ratings equally sensible. As was shown in the discussion on differences in working alliance, Sonja seemed to express less vulnerability and painful affect than Johanna, which may also be an indication that she was less comfortable with intimacy, a central aspect of secure attachment (Kivlighan Jr et al., 1998). One can speculate if Sonja’s manner of relating to her parent and to the therapist was not just an aspect of these two concrete relationships but a consequence of her having developed an anxious-ambivalent attachment style, and that this attachment style might both have been a factor in the development of her difficulties as well as a factor influencing the processes and the interaction with her therapist, and ultimately the outcome of her therapy.

### 4.4 The therapist in the two dyads

The differences in therapist item scores between the interaction structures typical of Johanna’s therapy and those of Sonja’s showed that the following items were more characteristic of Johanna’s therapy process: “Therapist draws attention to young person’s characteristic ways of dealing with emotion,” “Therapist encourages reflection on internal states and affects,” “Therapist attends to the young person’s current emotional states,” “Therapist identifies a recurrent pattern in young person’s behavior or conduct,” and “Therapist draws attention to feelings regarded by young person as unacceptable.” This indicates that in Johanna’s therapy, the therapist actively encouraged Johanna to explore and verbalize the thoughts and feelings or herself and others, he focused on Johanna’s feelings about what happened or was said in the sessions, he drew Johanna’s attention to how she usually dealt with emotions, he pointed out recurrent patterns in Johanna’s behavior, and emphasized feelings considered by Johanna as inappropriate, wrong or dangerous. These are all features that are considered prototypical of psychodynamic treatment (Shedler, 2010). As these items on average were rated
comparatively less characteristic in the interaction structures primarily expressed in Sonja’s therapy, it may be said that the therapist used more prototypically psychodynamic interventions in Johanna’s therapy compared to in Sonja’s therapy.

As was shown by Dahl et al. (2017) in a previous study using data from the FEST-IT project, therapists tended to modify their approach when faced with weaker working alliances and more difficult interactions, whereby they relied less on a traditional psychodynamic approach to therapy and adopted a more problem-solving and symptom-oriented approach. A similar modification of the therapist’s approach appears to be evident in his work with Sonja, as the differences in interaction structures indicated that relative to his work with Johanna he more often restated Sonja’s descriptions in such a way that she was encouraged to look at situations differently, he encouraged more reflection on Sonja’s symptoms, he appeared to spend more time linking sessions together, and he revealed more emotional responses, perhaps trying to forge a stronger and more intimate bond with her. However, our study does not indicate that this kind of modification necessarily is a constructive way of dealing with a weaker alliance and more resistance from the client.

4.5 Psychotherapeutic change in the therapies

In this comparative case study, the patients had very different outcomes when reviewing PFS, the primary outcome measure, indicating ‘good outcome’ in Johanna’s case, and ‘poor outcome’ in Sonja’s case. PFS is a complex measure that includes more than more symptom reduction, as it aims to measure general adaptive functioning and life satisfaction (Høglend et al., 2000). On the symptom measures both patients did however experience reduction in depressive symptoms at the one-year follow-up. Johanna experienced the greatest decrease both on self-reported measures and on clinician rated measures. While Johanna’s decrease in MADRS and BDI can be considered more streamlined (except for a slight increase in MADRS post-treatment), Sonja’s symptom ratings were more mixed with both larger discrepancies between the MADRS and BDI, as well as larger fluctuations on the MADRS. However, from the 12th session to the 20th session there were considerable reductions in both symptom measures in Sonja’s sessions. When reviewing the interaction structures, the sessions between the 12th and 20th were the sessions where the interaction structure Making sense of relationships, a factor typical of Johanna’s sessions, was expressed at its highest level in Sonja’s therapy. This is an interesting finding as it might indicate that this interaction
structure was promoting symptom reduction in the two therapies. Unfortunately, the BDI-score from Sonja’s last session was missing from the material, but her MADRS scores showed an increase in depressive symptoms from session 20. There could be several reasons for this increase; she could have been negatively affected by her uncle’s illness, or she could have become more in touch with her emotions due to therapy and therefore reported more symptoms. Sonja’s symptom scores from the follow-up were ambiguous, as she on BDI reported an increase from the 20th session, while her MADRS was at its lowest. A general finding is that both patients experienced a reduction in depressive symptoms throughout the course of treatment.

However, although both reported reduced symptoms on the self-report at follow-up, Sonja’s experience one year after treatment was that nothing has improved or that she was feeling worse than at the beginning of treatment. In sharp contrast, Johanna reported not having any problems at all. This might indicate that patients’ experience of psychological change includes more than just symptom reduction, making the PFS scores more in concordance with her general feedback about treatment. PFS is not limited to a specific diagnosis and the symptoms related to it (Bøgwald & Dahlbender, 2004). Measuring both interpersonal and intrapersonal aspects it is a unique measure to capture psychological functioning related to several factors in the adolescent’s life. The fact that improvement consists of more than symptom reduction, is in accordance with Busch et al (2004, ref in IMPACT Study Child Psychotherapy Sub-Group 2010), who underline that if psychodynamic treatment is delivered in a successful way, one might see the following outcomes: patients being better at managing depressing feelings and aggression, and being less prone to guilt and self-devaluation, patients making more realistic assessment of their own and others behavior and motivations, developing a better sense of agency, rather than acting out being more capable of being thoughtful, gaining a more realistic view of their responsibilities and the difference between fantasy and reality, in addition to being less vulnerable to depression in the face of loss, disappointment and criticism.

The interaction structures present in these two cases, indicate that symptom reduction and psychological change happen mostly in the context of a good working relationship. However, the ability to mentalize self and others and be psychologically minded, seemed to differ between the two clients. The interaction structures imply that both Sonja and Johanna got to this point, but that it took Sonja longer to get there, and that the process stopped when
circumstances in her life got difficult. The fact that the patient’s surroundings and economic and social support seemed to differ greatly appeared to affect them, both in regard to their capacity to benefit from therapy in the early stages, but also in their trajectory of change. It may be that for Sonja, the change of becoming more psychologically minded could have made her more exposed to psychological pain, and that her limited experience of her own emotions was a coping mechanism developed to shield her from the psychological hardship in her life. With this in mind, it might imply that a relatively short-term therapy while still living at home in a dysfunctional relationship with a drug abusing parent prevented her from making optimal use of the treatment provided. One could argue that in working with adolescents living in difficult circumstances, these circumstances would need to be addressed and changed to enable the adolescents to properly benefit from therapy.

4.6 Strengths and limitations

The study has several strengths and weaknesses. APQ is a relatively newly developed instrument, and to this date not many studies using this instrument exist. To our knowledge, this is the first comparative case study of psychotherapy involving adolescents, where two complete therapies have been coded using APQ. Coding whole therapies has the advantage that it creates a complete ‘motion picture’ of what happens in therapy with the two adolescents, without the need to assume what happens based on a limited number of sessions.

The patients in the FEST-IT study were adolescents who were referred to and treated by therapists working in standard outpatient clinics and private practices, and not exclusively recruited for the study. FEST-IT also used liberal inclusion criteria, resulting in patients with complex psychological challenges. This makes their problems, symptoms and therapies relevant and transferable to everyday treatment reality in an outpatient setting. This also benefitted the present study, as it ensured relevance of the findings for clinicians.

There are several limitations to this study that needs mentioning. When selecting the participants, the aim was to find two patients who were as similar as possible, but with different outcomes. Johanna and Sonja shared many characteristics, however, while listening to the sessions it was apparent that there were substantial differences between them, in particular regarding their families’ socioeconomic status and conflict level, as well as Johanna’s and Sonja’s initial capacity to benefit from therapy, i.e. level of mentalization. This
can be regarded as a limitation when comparing the two, however, it also reflects the reality, and emphasizes the fact that most patients do not match the criteria of being an ‘average patient.’

A limitation of conducting a case study with two patients treated by the same therapist, is that there is no way of knowing if the therapist’s interaction with the two patients are representative of his characteristic way of interacting with patients, the other patients and their therapists included in the FEST-IT study, or the wider population of adolescent patients and their therapists. In other words, the therapist’s responses may not be representative of most psychodynamic therapists. However, the most important aspect of this research was to explore in-depth the interactions of the therapist and clients, and as such make the processes transparent and tangible. The strengths of case studies like the present one, is their ability to examine variation within a phenomenon or a process, not necessarily within a population, and generate rich descriptions of process data in order to investigate potential associations between process and outcome and mechanisms of change from which to build new theories or nuance existing ones (see Fishman, 2011; Fishman & Edwards, 2017; J. McLeod, 2010).

Although the therapies in the present study were similar to therapy in an everyday clinic, an important fact is that the therapies were randomized to either include transference work or not. A limitation of this study is that the randomization key had not been opened while analyzing the results. However, as the scores on the two transference items were consistently on the uncharacteristic side throughout both therapy trajectories, this suggests that both therapies were randomized to the non-transference work condition. Although the aim was to be theoretically neutral, the fact that the raters were aware that the therapy sessions they listened to were dynamic psychotherapies, might affect the process, as well as the fact that both raters had dynamic psychotherapy as their preferred approach. It is possible that the raters would not have rated the transference items as uncharacteristic if these therapies were not psychodynamic, or if the raters had a different preferred approach, as it would not be as relevant to listen for these kinds of interventions.

Another limitation was that the BDI score from Sonja’s last session was missing. This made it necessary to evaluate her symptom reduction only from observer rated MADRS. Our general impression from listening to Sonja’s sessions, as well the findings from differences in interaction structure was that she had a tendency to distance herself from emotions. This might indicate that MADRS is a less reliable measure for evaluating Sonja’s actual symptom
level. In addition, some of Sonja’s sessions were not recorded, and we can therefore not exclude the possibility that these missing sessions were so different that they would have affected the interaction structures or the differences between them. However, there were no references in the sessions following to significant events or developments taking place in the missing sessions.

The two cases were chosen in order to investigate the processes associated with divergent outcomes. However, one may question the characterization of Sonja’s outcome as poor. Her symptom scores showed a reduction that in a clinical setting most likely would have been characterized as a positive outcome. However, she showed a reduction in PFS scores on the follow-up and reported that nothing had improved or that she was feeling worse. This divergence might be explained by the fact that PFS measures more than symptom reduction, or that Sonja’s therapy made her more capable of experiencing and accepting emotions, making her difficulties more apparent and present to her.

In regard to reliability, the results show that overall inter-rater reliability was higher in Johanna’s sessions than in Sonja’s sessions. Discussions following the coding of reliability suggested that there was no great disagreement between the raters in how they had perceived the sessions, but about how to code Sonja’s responses. In many of Sonja’s sessions she could in parts express vulnerability and in other parts distance herself from vulnerability. This ambiguity in the sessions made it difficult for the raters to decide if it was characteristic or uncharacteristic. This kind of ambiguity or ambivalence is something that clinically cannot be avoided, especially with this group of patients. However, it does represent a limitation with regard to the reliability of the coding. It may be that this reflects a limitation of the APQ method, as it might be suited to measure variability from session to session, but does not fully capture the complexity and variability that can be found within a session.

It is important to note that other similar studies have coded sessions randomly. Due to time constraints, and the fact that the researchers of this study were also the raters, each therapy trajectory in this study was coded by one rater in a chronological order. This was done in order to get an overview of the narrative of the therapies as well as the process. Some might argue that this might have given the raters an understanding of the outcomes of the two therapies, and thus were no longer truly blind to the outcome. In addition, this could potentially have caused a drift in coding. The raters did to some extent develop a correct assumption about the outcome of the therapies, as was later revealed. The general impression
was, however, that this did not affect the rating of the sessions, as reliability was satisfactory at all times and did not improve throughout the process.

### 4.7 Implications

The present study suggests that the active use of therapeutic, i.e. psychodynamic, techniques was associated with positive outcome, for Johanna in general, and for the phase in Sonja’s therapy where the interaction structure *Making sense of relationships*, is expressed at a high level. This appears to replicate results from previous research (Jones & Pulos, 1993). One may think that had the therapist used more psychodynamic techniques with Sonja her outcome would be more favorable. However, this is not a conclusion that may be drawn from a study of merely two cases. The fact that the therapist with Sonja used a more problem-solving and symptom-oriented approach, may in fact have been a correct modification of his technique in response to the challenges presented in that particular dyad. More research is clearly needed on the interaction between psychodynamic techniques, process measures, and patient characteristics in adolescent psychotherapy. Moreover, therapists should strive to be conscious of when they deviate from their chosen approach, and reflect on what may cause them to do so.

It was found that Sonja relative to Johanna showed a limited capacity for mentalization, and that this appeared to make it difficult for her and her therapist to uncover the themes that underlay her difficulties, as well as impeding the formation of an effective working alliance between them. As mentalization is an ability that is still in development in adolescence, identifies this as a potential central difference between adolescent psychotherapy and psychotherapy with adults. It appears important to investigate how therapists can effectively work with patients who display a limited capacity for mentalization, and that therapists should be mindful of the possibility for using the therapeutic relationship to help foster this capacity in their adolescent patients. It may be that direct transference work would have benefitted this particular client, as research on adults have shown that patients with low quality of object relations have specific positive effects of transference work (Hersoug, Ulberg, & Høglend, 2014).

Adolescents are more impacted by their family environment, and our study suggests that this can affect their ability to gain from therapy. In Sonja’s case her everyday life, and the themes
of therapy, seemed to have been heavily influenced by the conflicts she experienced with her parent, and her limited social support. Therapists should bear in mind that young patients to a greater extent than adults are dependent on their home environment and are less able to influence the circumstances in which they live. In Sonja’s case it was not only her everyday life that was affected by her living environment, but we infer that her troubled relationship to her parent caused her to develop an anxious attachment style, and furthermore, that this attachment style impeded the formation of an effective working alliance. This indicates that one should also include parental work in these cases. Moreover, more research is needed on how to develop working alliances with adolescent patients that do not have secure attachment styles.

### 4.8 Conclusion

Examining the therapeutic process in two patients treated by the same therapist but showing divergent outcomes, allowed us to examine the unique features of each dyad which influenced the outcomes. Using the APQ, we were able to create comprehensive and clinically relevant narratives of these two therapies, in a way that also allowed for quantitative analyses of the similarities and differences between them.

The APQ identifies meaningful interactions structures that captures unique aspects of the patients, the therapist and the therapeutic dyadic interactions which creates the possibility to investigate the complexity of psychotherapy. In the present study we found: 1) that the interaction structures showed differences between the clients in areas related to mentalization, psychological mindedness and attachment style, 2) that the therapist utilized somewhat differing therapeutic approaches in the two dyads, favoring more psychodynamic interventions with one patient, who had a better outcome from the therapy, and a more problem-solving and symptom-oriented approach with the other, who had a less favorable outcome, and 3) that the use of psychodynamic techniques was associated with positive psychotherapeutic change. An interpretation of this last point is that the patient with favorable outcome was more receptive to psychodynamic interventions.

With mental health difficulties among adolescents on the rise, it is vital to continue this practice, in order to examine the dynamic interaction between client factors, therapist factors and psychotherapeutic methods, and discover what works for whom.
References


Ormhaug, S. M. (2016). The Therapeutic Alliance in the Treatment of Traumatized Youths. Relationship to Outcome and Dropout Across Rater Perspectives and Therapeutic Interventions. (Doctorate), University of Oslo, Oslo. (566)


Table A1. Average WAI-SR scores with sub-scales.

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<td>Sonja</td>
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<td>Average bond scale</td>
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Table A2. Client WAI-SR scores.

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<td>Johanna</td>
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<tr>
<td>5</td>
<td>5</td>
<td>6</td>
<td>5</td>
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<td>The therapist and I agree about the things I will need to do in therapy to help improve my situation</td>
<td>7</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>What I am doing in therapy gives me new ways of looking at my problem</td>
<td>7</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>I believe the therapist likes me</td>
<td>4</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>The therapist does not understand what I am trying to accomplish in therapy</td>
<td>7</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>I am confident in the therapist's ability to help me</td>
<td>7</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>The therapist and I are working towards mutually agreed upon goals</td>
<td>6</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>I feel that the therapist appreciates me</td>
<td>6</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>We agree on what is important for me to work on</td>
<td>7</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>The therapist and I trust one another</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>The therapist and I have different ideas on what my problems are</td>
<td>6</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>We have established a good understanding of the kind of changes that would be good for me</td>
<td>7</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WAI-SR</th>
<th>Task scale</th>
<th>Bond scale</th>
<th>Goal scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.25</td>
<td>5.17</td>
<td>6.08</td>
<td>5.50</td>
</tr>
<tr>
<td>6.50</td>
<td>5.00</td>
<td>6.75</td>
<td>5.25</td>
</tr>
<tr>
<td>6.75</td>
<td>5.00</td>
<td>6.50</td>
<td>5.75</td>
</tr>
<tr>
<td>5.50</td>
<td>5.25</td>
<td>5.50</td>
<td>5.00</td>
</tr>
</tbody>
</table>
### Table A3. Therapist WAI-SR Scores.

<table>
<thead>
<tr>
<th>Session 3</th>
<th>Session 12</th>
<th>Session 20</th>
<th>Session 28</th>
</tr>
</thead>
<tbody>
<tr>
<td>Johanna</td>
<td>Sonja</td>
<td>Johanna</td>
<td>Sonja</td>
</tr>
<tr>
<td>The client and I agree about the steps to be taken to improve his/her situation</td>
<td>6</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>My client and I both feel confident about the usefulness of our current activity in therapy</td>
<td>6</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>I believe the client likes me</td>
<td>7</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>I have doubts about what we are trying to accomplish in therapy</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>I am confident in my ability to help</td>
<td>6</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>We are working towards mutually agreed upon goals</td>
<td>6</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>I appreciate the client as a person</td>
<td>7</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>We agree on what is important for the client to work on</td>
<td>7</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>The client and I have built a mutual trust</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>The client and I have different ideas on what his/her real problems are</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>We have established a good understanding between us of the kind of changes that would be good for the client</td>
<td>5</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>The client believes the way we are working with her/his problem is correct</td>
<td>6</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>

**WAI-SR**
- 6.42 5.00 6.75 4.25 6.25 5.50 6.67 4.75
- **Task scale**
  - 6.25 4.25 7.00 3.25 6.00 5.50 6.75 5.25
- **Bond scale**
  - 6.75 5.25 6.50 4.25 6.25 5.50 7.00 6.00
- **Goal scale**
  - 6.25 5.00 6.75 4.50 6.50 5.00 6.25 3.00