Psychotherapy Research
Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/tpsr20

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Published online: 03 Mar 2015.

Psychotherapy Research, 2015
http://dx.doi.org/10.1080/10503307.2015.1010627

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EMPIRICAL PAPER

Relationship representations and change in adolescents and emerging adults during psychodynamic psychotherapy

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(Received 30 July 2014; revised 11 January 2015; accepted 12 January 2015)

Abstract
Objective: Two groups of clients at sequential developmental stages, adolescents and emerging adults, were compared regarding their presenting problems, psychological distress, and relationship representations over one year of *psychotherapy*. **Method**: Thirty adolescents aged 14–18 years and 30 emerging adults aged 22–28 years, with similar demographic background, completed outcome measures and interviews according to the Core Conflictual Relationship Theme (CCRT) method. **Results**: The groups differed significantly in the presenting problems but did not differ in their initial levels of distress; their symptoms improved to a similar extent after one year of *psychotherapy*; differences between the groups in the representations of others were consistent with age-specific developmental challenges; levels of representations were associated with levels of symptoms at the end-point of treatment. **Conclusion**: Clinicians need to be attuned to the specific difficulties and challenges of these continuous yet distinct developmental stages.

Keywords: adolescence; emerging adults; CCRT; outcome; process; psychodynamic psychotherapy

The transition to adulthood in Western industrialized nations is considered by contemporary social scientists to last from the teens through the twenties and to be sufficiently long to constitute two separate developmental phases: adolescence and emerging adulthood. Each of these *age group*s struggles with characteristic developmental challenges (Arnett, 2004, 2007; Syed & Seiffge-Krenke, 2013). Most adolescents and emerging adults successfully adapt to these developmental challenges, but for some individuals, these challenges may be overwhelming or only partially achieved, leading to arrest in the developmental path and possibly psychological distress (Syed & Seiffge-Krenke, 2013). Research shows that the prevalence of depressive and anxiety disorders is higher in adolescents and emerging adults compared with other *age group*s (Galambos & Krahn, 2008; van Beek, Hessen, Hutteman, Verhulp, & van Leuven, 2012). In order to help adolescents and emerging adults regain mastery of age-appropriate tasks, sometimes therapy is needed. Psychotherapy research studies have *focused* separately on process and outcome in adolescents (cf., Midgley, Anderson, Grainger, Nesic-Vuckovic, & Urwin, 2009; Weisz & Kazdin, 2010) and in emerging adults (*e.g.*, Baruch & Fearon, 2002; Lindgren, Werbart, & Philips, 2010; Philips, Wennberg, Werbart, & Schubert, 2006), more on the former and much less on the latter group. Moreover, to our knowledge, no study has compared *outpatient* samples of adolescents and emerging adults receiving psychological treatment. Understanding the developmental needs of each group in *psychotherapy* and the process of change that are unique to adolescents and emerging adults can enhance therapists' effectiveness in working with these *age group*s. Furthermore, this line of research follows the recent call of *psychotherapy* researchers to integrate knowledge from developmental psychology with the investigation of change in *psychotherapy* (Castonguay, 2011;

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Wiseman, 2014). Thus, the main purpose of the current study was to compare these consecutive developmental groups regarding the nature of the problems, level of symptom distress, and the process of change in psychodynamic *psychotherapy*. Such a comparison between a sample of adolescent clients that were studied in our earlier research (Atzil-Slonim, Shefler, Dvir-Gvirsman & Tishby, 2011; Atzil-Slonim, Shefler, Slonim & Tishby, 2013; Atzil-Slonim, Tishby & Shefler, 2014) and a comparable sample of emerging adults in *psychotherapy* would serve two purposes. First, it would address the question of whether our previous findings are characteristic of adolescents in *psychotherapy* or can be considered as common to broader *age group*s. Second, it would address the characteristic processes in young adults in *psychotherapy*, a client group that had not been sufficiently studied within a developmental framework.

Developmental Tasks and Distress in Adolescence and Emerging Adulthood

The three core developmental challenges in adolescence and emerging adulthood are redefinitions of the relationship with the parents, development of the capacity for intimate relationships with friends and romantic partners, and identity formation (Arnett, 2007; Erikson, 1968; Levy-Warren, 1999). A fair amount of continuity exists between adolescence and emerging adulthood; however, some developmental challenges tend to occur more predominately within adolescence, whereas other challenges are more central in emerging adulthood.

Research on the transformations in the relationship with parents that occur during adolescence and emerging adulthood shows that while both adolescents and emerging adults require love and support from their parents (Nelson, Padilla-Walker, Christensen, Evans, & Carroll, 2011; Seiffge-Krenke, 2011), conflicts with parents are more characteristic of adolescents and tend to stabilize during emerging adulthood (De Goede, Branje, Delsing, & Meeus, 2009; Smetana, Campione-Barr, & Metzger, 2006). The intensified conflicts of adolescents with their parents reflect the negotiation of the adolescent's growing autonomy needs, a critical task that has been linked to numerous indices of adolescent adjustment (Laursen & Collins, 2009). While emerging adults continue to rely on their parents as a source of support and comfort, they also tend to have a greater amount of autonomy in their relationship with their parents accompanied by a decrease in parent–child conflict over issues of everyday living (Arnett, 2007; Nelson et al., 2011).

The task of developing a capacity for intimate relationships with friends and romantic partners is also a continuous process from adolescence to emerging adulthood, but again, the centrality of this task varies with age. Research suggests that whereas parents are the most important support providers for adolescents, friends and romantic partners clearly become the most important support providers for emerging adults (Seiffge-Krenke, 2003). Additionally, the need to fulfill oneself in terms of romantic relationships is more central in emerging adults compared with adolescents (Arnett, 2007).

Studies on the third core developmental task, identity formation, have focused predominately on adolescence (Arnett, 2004). However, recent theories of development suggest that identity exploration tends to continue and even intensify beyond adolescence and mostly occurs during emerging adulthood, especially in the areas of academic career, work, and love (Arnett, 2007). Many emerging adults need to address career and academic expectations toward achieving financial independence and a satisfying and enjoyable identity fit. In some cases, these expectations are difficult to match with reality and often require compromises of hopes and dreams (Kroger, Martinussen, & Marcia, 2010). The pressure to find their own unique identity by choosing from a variety of alternatives may be more stressful for emerging adults because adolescents' environments are more structured.

The literature has abundantly described the association between the above-mentioned developmental tasks and youth adjustment (e.g., Ari & Shulman, 2012; Seiffge-Krenke, 2011; Wintre, Bowers, Gordner, & Lange, 2006); however, the question of whether the main presenting problems that lead to seeking treatment are different between the two age groups has not been studied.

The prevalence of depressive and anxiety disorders is higher in adolescents and emerging adults compared with other age groups (Galambos & Krahn, 2008; van Beek et al., 2012). Previous studies have compared these two age groups in terms of distress and found that the rates and severity of symptoms follow a normative pattern of increase through middle adolescence, which peaks during late adolescence and emerging adulthood and begins to stabilize only in adulthood (Galambos & Krahn, 2008; Hankin & Abela, 2005). These studies of rates and severity were based on nonclinical samples; questions on whether clinical samples of adolescents and emerging adults differ in the initial level of symptomatology and whether these two successive age groups undergo similar changes in

symptom distress throughout the process of treatment have not yet been studied.

Relationship Representations and Change in Psychodynamic Psychotherapy for Youth

There is a considerable body of research indicating the effectiveness of psychodynamic psychotherapy for adolescents (for reviews see Midgley & Kennedy, 2011; Palmer, Nascimento, & Fonagy, 2013) and for emerging adults (e.g., Baruch & Fearon, 2002; Lindgren et al., 2010; Philips et al., 2006). The goals of psychodynamic therapy include, and extend beyond, symptom relief, with a heavy emphasis on helping clients expand the range of their experiences and develop new perspectives to experience interpersonal relationships (Mitchell, 1988, Shedler, 2010). According to this theory, individuals construct their interactions with others based on cognitive-affective internal representations, which were predominately acquired as a result of interactions with early caregivers in childhood (e.g., Beebe & Lachman, 1988; Blatt, Wiseman, Prince-Gibson, & Gatt, 1991; Bowlby, 1988). Because they are internal, these representations naturally include subjective interpretations of reality and, as such, tend to contain unrealistic expectations from others, are self-confirmatory, and are recreated in other relationships, including those with a therapist. In psychodynamic psychotherapy, the recurrence of conflictual interpersonal themes in the therapeutic relationship is viewed as a unique opportunity for clients to explore and rework them *in vivo* to develop more flexible ways of perceiving and experiencing their relationships. In psychotherapeutic work with youth, the goal is to help individuals who have deviated from a healthy developmental path return to the mastery of age-appropriate tasks and develop more adaptive relationships which may lead to symptom reduction (Midgley et al., 2009).

The empirical literature on the association between changes in internal representations of relationships and symptom reduction is inconclusive. While some studies have found this association significant (e.g., Atzil-Slonim et al., 2014; Harpaz-Rotem & Blatt, 2009; Luborsky & Crits-Christoph, 1998; Philips et al., 2006), others have not (e.g., Wilczek, Barber, Gustavsson, Åsberg, & Weinryb, 2004). McCarthy, Gibbons, and Barber (2008) suggested that these contradictory findings may be attributed to different measurement techniques and that more studies are needed to examine the theoretical psychodynamic assumption that change in internal representations is associated with change in symptomatology.

A natural framework to study internal representations and change is the Core Conflictual Relationship Theme (CCRT; Luborsky & Crits-Christoph, 1998). The CCRT model views interpersonal patterns as consisting of three basic components: (i) an individual's wishes, needs, or intentions during an interpersonal interaction with a specific other (W); (ii) the actual or expected responses of the other (RO); and (iii) the responses of the self (RS). From a psychodynamic perspective, the CCRT themes are formed from early interpersonal experiences with the parents in childhood and tend to be repetitively applied later in life in different relationships, including the therapeutic relationship (Luborsky & Crits-Christoph, 1998). The CCRT has been widely used to study internal representations in the psychotherapy of adults (e.g., Luborsky & Crits-Christoph, 1998; Wilczek et al., 2004) and more recently in psychotherapy with adolescents (Atzil-Slonim et al., 2011, 2013, 2014). To the best of our knowledge, only one study has used this method to examine the changes in relationship patterns within a developmental framework (Waldinger et al. 2002). In that longitudinal study, which examined a normative sample of adolescents and young adults, the authors reported that throughout development, the internal representations of peers became more complex and consisted of both positive and negative content (Waldinger et al., 2002).

There are various ways to apply the CCRT method (Barber, Crits-Christoph, & Luborsky, 1998; Crits-Christoph, Demorest, & Connolly, 1990; Kachele et al., 2002). Recently, a data-driven approach to automatically partition the CCRT categories into clusters, which was designed to capture the dominant interactional content, was implemented (Atzil-Slonim et al., 2013). This approach adds several strengths to the existing methods. First, whereas previous approaches examined each CCRT component (W, RO, and RS) separately, the novel approach yields interactional patterns based on different combinations of the CCRT components, thus revealing dominant patterns of interaction between the self and other. Second, whereas in previous studies, the clients were compared according to the characteristics of their CCRT pattern, such as rigidity/flexibility (Wilczek et al., 2004), positive/negative (Luborsky & Crits-Christoph, 1998), or the similarity of the interpersonal patterns across an individual's relationships (McCarthy et al., 2008), the novel approach enables the comparison of groups with regard to the dominant content of their relationship representations. In a study that applied this approach to examine the changes in the content of the internal representations of the adolescents' relationships with their parents it was found that compared with a non-treatment

group, adolescents in treatment remained higher in terms of emotionally painful representations but at the same time the level of their close and supportive representations increased through treatment, whereas that of the non-treatment group did not change. Both the treatment and non-treatment groups increased in their struggle for autonomy representations, which may reflect the struggle for autonomy being a normal developmental process that intensifies temporarily (Atzil-Slonim et al., 2013). Another study that used this approach to examine changes in adolescents' internal representation toward the therapist found that adolescents' positive representations of their therapists increased throughout the year of treatment, whereas their negative representations did not change. There was an association between the development of the therapeutic relationship and improvement in the perception of the relationship with parents over the course of therapy (Atzil-Slonim et al., 2014). These studies focused on adolescents and concluded that the content of the internal representations and the pattern of change were characteristic of this age group. However, in order to rule out that such changes are unique to adolescents a comparison to a different age group is needed, specifically the group that is next on the developmental continuum on which fairly little research has been conducted. In the current investigation, we will compare adolescents and emerging adults in terms of internal representations of relationships with parents, friends/romantic partners, and the therapist at the initial point of treatment and after one year of psychodynamic psychotherapy. We will also examine whether changes in internal representation of relationships are associated with change in symptoms among the two groups.

Research Questions and Hypotheses

The hypotheses that we formulated on the expected differences between adolescents and emerging adults focused on (i) differences in the clients' presenting problems and symptom distress; (ii) differences in internal representations of their parents, friends/romantic partner, and the therapist; (iii) and the association between the internal representations and the outcome measures among the two groups.

Hypothesis 1a: The two groups will differ with regard to the main reasons that lead them to seek treatment. Whereas the adolescents' main problems will center on their relationships with their parents, the problems that emerging adults present will center on identity issues and creating romantic relationship. This is based on the literature about adolescents' and emerging adults' different developmental tasks (e.g., Arnett, 2004, 2007; Erikson, 1968; Levy-Warren, 1999).

Exploratory analyses 1b: We had no basis for predicting that the two groups will differ in the initial levels of the presenting problems and the overall symptoms distress at the beginning of treatment. Thus, we explore it in our analyses with no directional prediction.

Exploratory analyses 1c: We did not find any theoretical or empirical support for the assumption that one of the age groups should demonstrate greater symptom reduction during treatment. Thus, we explore in our analyses the differences between the groups in the extent of the change in the levels of the presenting problems and symptom distress, while controlling for initial levels.

Hypothesis 2a: First, compared with the emerging adults, the adolescents will have higher initial levels of conflictual representations of their parents on issues concerning individuation and autonomy. However, the two groups will not differ in the levels of the representations of their parents as supporting and in the levels of emotionally painful representations of their parents at the initial time point. These hypotheses are based on research on adolescents and emerging adults' relationships with their parents (e.g., Seiffge-Krenke, 2011; Nelson et al., 2011). Second, the extent of change in the themes that center on autonomy will be greater in the adolescents compared with the emerging adults. Additionally, both groups will change throughout treatment toward more supportive experiences with their parents; however, they will not change in the levels of emotionally painful representations of their parents. These hypotheses are based on contemporary psychodynamic perspectives regarding the goals of psychodynamic psychotherapy with youth, which posits that in each developmental phase, different relationship representations are at the focus of the work (Levy-Warren, 1999).

Hypothesis 2b: First, compared with the adolescents, the emerging adults will have higher initial levels of both positive and negative representations of their friends/romantic partner. This hypothesis is based on recent literature on the centrality of the relationships with friends in emerging adults (Ari & Shulman, 2012), and the findings regarding the growing ability throughout the normal development of emerging adults to own complex representations of friends (Waldinger et al., 2002). Second, emerging adults will demonstrate more change compared with the adolescents in the positive and negative representations of their friends/romantic partners.

Exploratory analyses 2c: Because there is not a sufficient theoretical background regarding the differences between the two groups in the internal

representations toward the therapist, we chose not to formulate a directional hypothesis but instead to explore the internal representations of the relationship with the therapist in the two groups at the initial time point of treatment and the changes in the representation of the therapist during treatment.

Hypothesis 3: Changes in internal representations of relationships will be related to changes in treatment outcome in both adolescents and emerging adults. This prediction is based on previous studies regarding the association between changes in internal representations and change in symptoms (e.g., Atzil-Slonim et al., 2011; Harpaz-Rotem & Blatt, 2009; Philips et al., 2006).

Method

Participants

Sixty clients were selected from two separate samples of clients in outpatient public clinics from two different age groups: adolescents (n = 30) ranged in age from 14 to 18 years (M = 15.98, SD = 1.13; for a detailed description see Atzil-Slonim et al., 2011), and emerging adults (n = 30) ranged in age from 22 to 28 years (M = 24.78, SD = 1.89; for a detailed description, see Wiseman & Tishby, 2014). In the present study, 30 emerging adults were selected from the larger sample (n = 67) to match the adolescent group on the basis of three criteria: (i) gender ratio, (ii) full data including two time points available for each client, and (iii) one client per therapist. This procedure resulted in 30 emerging adult clients, each seen by one therapist (except for three therapists who treated two clients each). Moreover, a series of chi-square tests indicated that except age, there were no significant differences between the adolescent and emerging adult samples in terms of various demographic variables (socioeconomic status, parents' years of education, divorced versus intact family status, ethnic origin). The details for each sample are reported below.

Adolescent clients. The adolescent client sample (n = 30) was selected from a sample of 72 adolescents, of whom 42 adolescents were not in treatment (Atzil-Slonim et al., 2011). Only the 30 adolescents in treatment were studied in the current research. Of these 30 adolescents, 21 (70%) were female, 25 (83%) were Israeli born, and 9 (30%) came from divorced families. Mean years of parents' education was 13.28 (SD = 2.83) for mothers and 13.73 (SD = 2.83) for fathers. In terms of the source of the referral, 14 adolescents (46.7%) had turned to psychotherapy of their own volition and 16 adolescents (53.3%) were referred by their parents, teachers, or school counselors. The participants were evaluated based on the clinician's intake, which indicated that 88% of the adolescents presented with symptoms of emotional distress, such as mild to moderate depression and anxiety; 52% presented with somatic distress; 44% had problems in interpersonal relationships; and 44% had social problems.

Emerging adult clients. The emerging adult sample (n = 30) was selected from a larger sample (n = 67) of clients (Tishby & Wiseman, 2014). Of the 30 emerging adults studied in the current research, 18 adults (60%) were female, 23 (77%) were Israeli born, and 6 (20%) came from divorced families. Mean years of parents' education was 14.18 (SD = 3.4) for mothers and 13.43 (SD = 3.32) for fathers. All clients in the emerging adult sample were self-referred. The majority of the participants were single (97.3%), undergraduate students (76.6%) residing in a rented apartment or in a university dorm away from the parental home (92%). The participants were evaluated based on the clinical intake, which indicated that 64% of the emerging adults presented with symptoms of emotional distress, such as mild to moderate depression and anxiety, 48% had problems in interpersonal relationships, and 36% had difficulty functioning in school or at work.

Exclusion criteria for both groups included clients who came in for a crisis intervention following severe trauma and clients diagnosed as psychotic or drug users. In addition, in both groups, a series of t-tests and chi-square tests indicated no significant relationship between the demographic variables and the initial levels of the outcome measures or the CCRT clusters.

Therapists. Thirty therapists treated the adolescents (each treated one client): 54% were advanced clinical psychology interns (with three or four years of experience), 33% were licensed clinical psychologists, and 13% were clinical social workers. Twenty-seven therapists treated the emerging adults (24 therapists each treated one client and three therapists treated two clients each): 62% were advanced interns (with three or four years of experience), 15% were licensed clinical psychologists, and 23% were clinical social workers. The years of experience of the therapists ranged from 3 to 15. The interns received weekly individual and group supervision.

Therapy. The clinic that provided the treatments to most of the adolescents' sample (20 out of the 30 adolescents) and to all the young adults' sample (30) was a student counseling center of a large university.

Ten adolescents were treated at another public clinic that provided psychotherapy to the same high schools and residential area as the student counseling center. The orientation of the therapists in both settings is psychodynamic (Summers & Barber, 2010) and based on a blend of object relations, self-psychology, and relational theories (Kohut, 1971; Mitchell, 1988; Winnicott, 1971). Treatment was not defined a priori as time-limited and consisted of weekly 50-minute sessions. For the adolescents, the treatment length ranged from 12 to 38 months with a median of 12 months; for the emerging adults, the treatment length ranged from 12 to 33 months with a median of 14 months. The data in this study refer to the first year of treatment.

Instruments

Outcome measures.

Target Complaints Scale. The Target Complaints Scale (TCS) is a widely used idiographic outcome measure in which clients describe the three main problems for which they seek therapy by listing them in descending order (Battle et al., 1966). The severity of each complaint is rated on a scale ranging from 1 (not at all) to 13 (could not be worse). The clients are asked to re-rate the same problems at different time points in therapy. Battle et al. reported a test-retest reliability of the TCS of .65. Paivio, Jarry, Chagigiorgis, Hall, and Ralston (2010) indicated convergence of the TCS and other measures of symptom distress (*r*s = .31 to .43). In the current study, the problems that the clients indicated as most troubling were classified into four broad major categories: (i) problems with parents, (ii) problems in romantic issues or with friends, (iii) identity issues (including self-esteem, career/academic concerns, self-confidence, worries about academic achievement, and career path), and (iv) depression and anxiety. In cases when a complaint did not neatly fall into one of these categories or when a complaint could have fallen into more than one category, a discussion was held between the authors of this paper until consensus was achieved. This coding system is based on previous studies (e.g. Deane, Spicer & Todd, 1997).We used the problem that was ranked highest of all three problems at the initial point of treatment to examine whether the adolescents and emerging adults differed in the presenting problems that prompted them to seek treatment. For cases in which two problems had the same score, we used the problem that was listed first.

Outcome questionnaire-45. The Outcome Questionnaire-45 (OQ-45) was used in the emerging adult sample (Lambert, Gregersen, & Burlingame, 1999). This 45-item self-report instrument was designed for the repeated measurement of client changes that occur throughout the course of mental health treatment. The clients are asked to rate their functioning in the past week on a 5-point Likert scale that ranges from 0 (never) to 4 (almost always). The OQ-45 consists of three subscales: symptom distress, interpersonal problems, and social role. In the current study, we used the total score, which is the sum of the 45 items, as a measure of the severity of psychological distress. The OQ-45 has adequate test-retest reliability (.84) and high internal consistency (.93). Concurrent validity has been demonstrated with a wide variety of self-report scales. The OQ-45 is widely used in university counseling centers and mental health centers. The total distress score has been found to be sensitive to change. Increase or decrease in at least 14 points is considered a "clinically significant change." The clinical cut-off score on the on the OQ-45 is 63/64. The OQ-45 has been translated into several languages, including Hebrew (Gross et al., in press). In the present study, the alpha coefficient of the OQ-45 was .91.

The youth-outcome questionnaire self-report. The Youth-Outcome Questionnaire Self-Report (Y-OQ-SR), which is one of the OQ measures designed for children and adolescents, was used in the adolescent sample (Burlingame, Wells, Lambert, & Cox, 2004). The Y-OQ-SR assesses an adolescent's psychological, symptomatic, and social functioning. This 64-item self-report questionnaire comprises six subscales: intrapersonal distress, somatic distress, interpersonal relations, critical items, social problems, and behavioral dysfunction. The Y-OQ was designed for the repeated measurement of emotional and behavioral symptoms (Burlingame et al., 2004). The 64 items are summed across the six content areas to produce a total score, with higher scores indicating a greater severity of the symptoms. The total Y-OQ score has demonstrated a high internal consistency (α = .95) and test-retest reliability (Burlingame et al., 2004). Here, we used the total score as a measure of the severity of the psychological distress. The Y-OQ total score is highly correlated with other frequently used assessment instruments, for example, the Child Behavior Checklist (r = .83; Achenbach, 1991). The clinical cut-off score is 46, and clients who change in a positive or negative direction by at least 13 points are regarded as having made a "reliable change" (Burlingame et al., 2004). The Y-OQ was translated into Hebrew by three clinicians. The translation and back translation were supervised by the first and last

authors of this study and were guided by instructions from the primary author of the Y-OQ (Lambert, personal communication). In the present study, the alpha coefficient of the Y-OQ was .94.

CCRT method. Relationship Anecdote Paradigm (RAP; Luborsky & Crits-Christoph, 1998) interviews were used to collect the narratives for the CCRT. In a RAP interview, which is approximately 45 minutes in length, the client is asked to describe relationship episodes (RE) in which she or he interacted with another individual by describing what happened, what was said, how she or he reacted, and how the interaction ended. These interviews are transcribed, and the REs are scored according to the CCRT protocol. In the current study, the participants were asked to relate two or three REs about each of the following significant others: their mother, father, friends/romantic partner, and therapist. The interviews were conducted by clinicians who were trained in the RAP interview method prior to the study. All interviews were recorded and transcribed. Numerous studies have demonstrated the validity and reliability of the CCRT method and RAP interviews.

Procedure

At intake, the adolescents and their parents were asked to sign consent forms. Forty-two adolescents who began psychodynamic treatment completed the first interview and questionnaires. Nine adolescents dropped out of treatment shortly after they began, and three adolescents who were in treatment did not appear for the second interview for various reasons. Thirty adolescents remained in treatment and completed the second interview. Emerging adults were also asked to sign consent forms at intake. Thirty emerging adults were drawn from the larger sample of 67 clients in a way that would make this group comparable to the adolescent group on the basis of the criteria detailed above. Of the original sample, 12 clients dropped out of treatment shortly after they began.

The adolescents completed the outcome questionnaires and underwent RAP interviews at two time points: at the beginning of the treatment and one year later. The emerging adults were interviewed and completed the questionnaires at three time points: at the beginning of the treatment, after six months, and after one year. For the present study, the first and last time points were used so that they resembled the time points of the adolescent group. The adolescents were paid $10.00, and the emerging adults were paid $15.00 for each interview as a token of appreciation for their time and readiness to cooperate. All research materials for both samples were collected upon the approval of the Helsinki ethics committee.

Rating the CCRT. The transcribed RAP interviews were given to clinical judges who were provided with extensive training in the CCRT rating method, as described in Luborsky and Crits-Christoph (1998). The judges used the standard category list in Luborsky and Crits-Christoph (1998), which contains 114 categories: 37 Ws, 35 ROs, and 42 RSs. They were asked to rate the extent to which each category was present in the RE on a scale of 1 (the category is not present) to 7 (the category is mostly present in the episode). The judges were blind to the research hypotheses. To estimate the inter-rater agreement, 20% of the REs were rated by two randomly assigned judges out of three in the adolescent sample and two judges out of six in the emerging adult sample in a balanced incomplete block design (Fleiss, 1981). The inter-rater reliability was determined by calculating the intraclass correlations (ICCs [2 k]; Fleiss, 1981), where *judge* was considered a random effect and k was the number of judges. Thus, the ICC estimates refer to the reliability of the aggregated score from two judges' ratings. The average ICC [2, 2] for the two samples ranged from .57 to .90, .77 to .90, and .70 to .87 for the Ws, ROs and RSs, respectively.

Cluster analysis of the CCRT categories. Internal representations of the relationships with parents, friends/romantic partner, and therapist were obtained using a data-driven clustering approach described in detail by Atzil-Slonim et al., (2013). We replicated their procedure; however, while the clusters were initially constructed based on the adolescents' CCRT data in the previous study, here the clusters were generated based on CCRT data of the two samples – adolescents and emerging adults. The decision to cluster the data of all 60 study participants (30 adolescents and 30 emerging adults) was preceded by an examination of the correlations between the clustering results obtained for each sample separately. Preliminary analyses indicated that the clustering results obtained for both alternatives were sufficiently similar to justify the use of one solution for both groups combined. Specifically, the PC between the partitions of the categories obtained for each sample separately was $r = .8$, $p < .001$; $r = .79$, $p < .001$; $r = .81$, $p < .001$ in the clusters toward parents, friends/romantic partner, and therapist, respectively. Additionally, when replicating the original approach, the data considered for estimating the PC relations included the data collected for both parents and for Times 1 and 2 (see Atzil-Slonim et al., 2013 for the

reasoning behind these decisions). The mathematical procedure to obtain the clusters is described in detail in our previous study and is only briefly described here. A pre-processing step was used to exclude from the analysis the categories in which 98% of the REs were assigned a rating of 1 (the category is not present) and thus seemed to be less relevant to the relationship with the specific protagonist (parents, friends/romantic partner, or therapist). Of the 114 CCRT categories, 13 categories were excluded from analysis of the relationship with parents, 39 categories from the relationship with friends/ romantic partner, and 39 categories from the relationship with the therapist.[1] The remaining categories were used for further analysis. Next, for each of the protagonists, the data for each CCRT category were represented as a vector comprising the entire RAP scores reported for this category across all study participants. To automatically partition the CCRT categories into clusters, the effective sample size was 360; i.e., the number of subjects (60) multiplied by the six REs (three at Time 1 and three at Time 2). The Iclust sequential algorithm[2] (Slonim, Atwal, Tkačik, & Bialek, 2005; Yom-Tov & Slonim, 2009) was then applied to partition the categories into clusters. The algorithm starts from a random partition of the CCRT categories into $K = 3$ clusters (for a detailed description of the determination of the number of clusters, see Atzil-Slonim et al., 2013). Then the algorithm selects at random one CCRT category, removes it from its current cluster and reassigns it to one of the three clusters such that the underlying Iclust cost function is maximized. In particular, in our case, this cost function measures the average pair-wise PC between categories assigned to the same cluster. This process is repeated sequentially until no more improvements are possible; namely the algorithm converges to a stable partition, formally referred to as a locally optimal partition. The entire procedure is repeated n times, and the partition that obtains the highest score in terms of the Iclust cost function is reported as the result of the algorithm. Specifically, in the current study, the obtained cost function values were 0.13 in the relationship with parents, 0.17 in the relationship with friends, and 0.13 in the relationship with the therapist. To assess the significance of these values, for all three cases we estimated the Iclust cost function for 1,000,000 *random* partitions into three clusters of the same sizes. In all three cases, the maximal value of the Iclust cost function across all the 1,000,000 random partitions was lower than 0.035; i.e., significantly lower than the aforementioned cost function values obtained for the (non-random) partitions recovered by the algorithm. This assessment implies a P-value lower than 0.000001 for the clustering partitions obtained by Iclust that are reported and analyzed in this study, indicating that the algorithm was able to recover a true structure in the analyzed data that relies on a strong and significant statistical signal.

The clusters signifying the relationship with each of the protagonists were given headings chosen to reflect the common theme of the categories assigned to them. The three clusters that were identified with parents were: *close and supportive – P*, *emotionally painful – P*, and *struggle for autonomy – P* (*P* signifying parents). The three clusters that were identified with friends/romantic partners were *close and supportive – F*, *negative experience – F*, and *helping other – F* (*F* signifying friends/romantic partners). The three clusters that were identified with therapists were: *being helped – T*, *feel liked – T*, and *negative experience – T* (*T* signifying therapist). Cluster scores were obtained by calculating the mean of all categories included in the cluster at each time point.

Results

Presenting Problems, Psychological Distress, and Outcome of Psychotherapy in Adolescents and Emerging Adults

Comparison between the groups regarding the presenting problems (Hypothesis 1a). We used the problem that was ranked highest of all three problems at the initial point of treatment to examine whether the adolescents and emerging adults differed in the presenting problems that prompted them to seek treatment. As predicted, a chi-square test indicated that the adolescents and emerging adults significantly differed in the problems that brought them to therapy, $\chi^2 = 21.43$; $p < .001$. The descriptive statistics of the TCS showed that the problems that both groups indicated as most troubling when entering therapy were as follows: problems with parents: 20 (66%) adolescents compared with 3 (10%) emerging adults ($Z = 4.51$, $p < .001$); identity issues: 3 (10%) adolescents compared with 11 (37%) emerging adults ($Z = 2.44$, $p = .015$); problems with friends/romantic relationships: 3 (10%) adolescents compared with 10 (33%) emerging adults ($Z = 2.19$, $p = .028$); and distress: 4 (14%) adolescents compared with 6 (20%) emerging adults ($Z = 0.69$, $p = .488$). Thus, the most common problem for the adolescents was problems with parents, whereas the emerging adults ranked identity issues and romantic relationships the highest.

Comparison between the groups in terms of the initial level of symptoms and the presenting problems (Exploratory analyses 1b). We

Table I. Means and SDs of the outcome measure scores (Y-OQ/OQ-45 and TCS) at the two time points for the adolescents and emerging adults.

Emerging adults $N = 30$		Adolescents $N = 30$		Outcome measure
Time 2	Time 1	Time 2	Time 1	Time
52.46 (23.81)	67.23 (20.71)	58.73 (28.75)	74.33 (23.86)	OQ
5.98 (2.49)	10 (.99)	4.35 (2.42)	9.46 (1.62)	TCS

Note. The Youth Outcome Questionnaire (Y-OQ-SR, Burlingame et al., 2004) was administered for the adolescent group. According to the Y-OQ manual, a decrease of 13 points or more is a significant amount of symptom reduction. The Outcome questionnaire-45 (OQ-45; Lambert et al., 1999) was administered for the emerging adult group. According to the OQ-45 manual, a decrease of 14 points or more is a significant amount of symptom reduction. TCS, Target Complaint Scale (Battle et al., 1966).

examined whether the groups differed in terms of their initial levels of distress on the outcome measures. Table I presents the descriptive statistics for the scores on the outcome measures at the two time points. To enable comparisons with other samples, this table presents the conventional total score of the Y-OQ and OQ-45 (the mean of the summed items). However, because the Y-OQ-SR and OQ-45 have different numbers of items (64 versus 45, respectively), the scores needed to be standardized to be comparable (this was guided by the instructions from one of the Y-OQ authors, Warren, personal communication). Due to the lack of *T* scores for the local samples, all analyses were conducted with Z scores calculated on the mean of the raw scores of each measure (Y-OQ-SR and OQ-45). That is, all OQ scores were standardized (by subtracting the mean and dividing by the standard deviation), so that both scales had a mean of 0 and a standard deviation of 1. The second outcome measure, the TCS, used the same 13-point scale for the two age groups. Independent samples *t*-tests were calculated to examine the differences between the groups on these measures at the start of treatment. The results indicated no significant differences in the initial levels of the Y-OQ/OQ or the TCS between the groups.

Comparison between the groups in terms of changes in the level of symptoms and the presenting problems (Exploratory analyses 1c). Next, to examine whether the two groups differed in changes in the outcome measures from pre- to post-treatment, a two-way analysis of variance (ANOVA) was conducted separately for each outcome measure (Y-OQ/OQ-45 and TCS), with the change in the outcome measure as the within-subject variable and the group (adolescents vs. emerging adults) as the between-subject variable (2 × 2). The ANOVA results for the Y-OQ/OQ-45 yielded a main effect for time ($F_{(1, 58)} = 32.045$, $p < .001$, partial $\eta^2 = .39$, power > .90), indicating that the scores of both groups decreased significantly on the OQ from pre- to post-treatment. No time × group interaction or group effects were observed for this outcome measure. Thus, both groups made similar gains on the OQ from the beginning of treatment to one year later. According to the Y-OQ and OQ-45 reliable change indices, both groups made a reliable change (a decrease of more than 13 and 14 points for the adolescents and the emerging adults, respectively).

The results of the ANOVA with the TCS yielded a main effect for time ($F_{(1, 58)} = 137.25$, $p < .001$, partial $\eta^2 = .74$, power > .90), indicating that as predicted, both groups significantly decreased in the severity of their target complaints. No interaction or group effects were observed for this outcome measure.

Internal Representations of the Relationship with Others and the Change over the Course of One Year of Treatment in Adolescents versus Emerging Adults

Internal representations of the relationship with the parents (Hypothesis 2a). The top of Table II presents the descriptive and change results for both groups of the three parent clusters: close and supportive – P, emotionally painful – P, and struggle for autonomy – P. First, we examined whether the two groups differed in the initial levels of the 3 clusters toward their parents. Contrary to our hypothesis, the independent sample T-tests indicated no significant differences between the groups in the clusters toward their parents at Time 1.

Next, to examine whether the two groups differed in terms of change from pre- to *post*-treatment, we conducted a repeated-measures multivariate ANOVA (MANOVA) with each of the three mean cluster scores toward the parents at the two time points as the within-subject variables and group as the between-subject variable (2×2). The MANOVA results yielded a main effect for time ($F_{(3, 56)} = 3.15$, $p < .05$, partial $\eta^2 = .14$), a main group effect ($F_{(3, 56)} = 10.17$, $p < .001$, partial $\eta^2 = .35$), and a time × group interaction effect ($F_{(3, 56)} = 3.33$, $p < .05$, partial $\eta^2 = .15$). Power for this analysis was low. As hypothesized, the ANOVA for the struggle for autonomy – P cluster yielded a significant time × group interaction effect ($F_{(1, 58)} = 7.61$, $p < .01$, partial $\eta^2 = .11$). This interaction is shown in Figure 1. A post-hoc analysis (estimated marginal means) indicated that the adolescents' scores

Table II. Descriptive and ANOVA results of the clusters toward the parents, friends, and therapist for both groups.

ANOVA (df = 1, 58)									Emerging adults N = 30		Adolescents N = 30		Group	
Time by group			Time			Group			Time 2	Time 1	Time 2	Time 1	Time	
η^2	$p <$	F	η^2	$p <$	F	η^2	$p <$	F	M (SD)	M (SD)	M (SD)	M (SD)	Cluster title	Referent
.01	.428	.63	.11	**.007**	7.73	.01	.398	.72	2.36 (.5)	2.16 (.51)	2.56 (.89)	2.2 (.66)	CS – P	Parents
.00	.687	.16	.00	.469	.53	.04	.120	2.48	1.94 (.42)	1.97 (.35)	1.76 (.42)	1.84 (.59)	EP – P	
.11	**.008**	7.61	.00	.550	.36	.22	**.000**	16.39	2.10 (.55)	2.31 (.48)	2.84 (.71)	2.51 (.57)	SA – P	
.00	.483	.49	.00	.960	.02	.13	**.004**	9.01	2.94 (.77)	3.02 (.86)	2.48 (.83)	2.39 (.92)	CS – F	Friends/ romantic partner
.03	.160	1.99	.08	**.026**	5.22	.10	**.011**	6.90	2.65 (.81)	2.54 (.72)	2.42 (.67)	1.98 (.75)	NE – F	
.00	.460	.54	.01	.400	.71	.08	**.021**	5.65	2.76 (1.31)	2.46 (.9)	2.13 (.94)	2.11 (1.09)	HO – F	
.08	**.024**	5.35	.25	**.000**	28.18	.00	.61	.25	3.01 (.82)	1.97 (.4)	2.61 (1.05)	2.2 (.87)	FL – T	Therapist
.25	**.000**	19.60	.53	**.000**	64.78	.07	**.037**	4.57	4.04 (.97)	2.06 (.55)	3.79 (1.23)	3.22 (1.16)	BH – T	
.11	**.009**	7.40	.31	**.000**	25.54	.02	.26	1.28	2.08 (.57)	1.51 (.27)	1.77 (.49)	1.6 (.44)	NE – T	

Note. Significant associations are in boldface type.
The abbreviations indicate the cluster titles: CS – P, close and supportive – parents, EP – P, emotionally painful – parents, SA – P, struggle for autonomy – Parents, CS – F, close and supportive – Friends, NE – F, negative experience – friends, HO – F, helping other – Friend, FL – T, feel liked – Therapist, BH – T, being helped – Therapist, NE – T, negative experience – T.

increased in that cluster significantly, whereas the emerging adults' scores did not change ($F_{(1,\ 58)}$ = 5.64, p < .05, partial η^2 = .08). Additionally, as hypothesized, the ANOVA for the close and supportive – P cluster yielded a significant main effect for time ($F_{(1,\ 58)}$ = 7.73, p < .01, partial η^2 = .11), indicating that the scores of both groups within this cluster increased significantly over time. No group × time interaction effect was observed for this cluster. Additionally, as hypothesized, the ANOVA for the emotionally painful – P cluster did not yield significant effects.

Internal representations of the relationships with the friends/romantic partners (Hypothesis 2b). The middle section of Table II presents the descriptive and change results for both groups of the three friend clusters: close and supportive – F, negative experience – F, and helping others – F. First, independent sample t-tests were conducted to compare the two groups' initial levels. A significant difference was found between the groups in the initial levels of the cluster close and supportive – $F(t_{(58)} = 2.71, p < .001)$, indicating that at the start of therapy, the emerging adults were higher in the levels of representation of the friends/romantic partners as close and supportive compared with the adolescents. There was also a significant difference between the groups in the cluster negative experience – $F(t_{(58)} = 2.95, p < .001)$, indicating that as hypothesized, the emerging adults had higher levels of both positive and negative clusters at Time 1 than the adolescents.

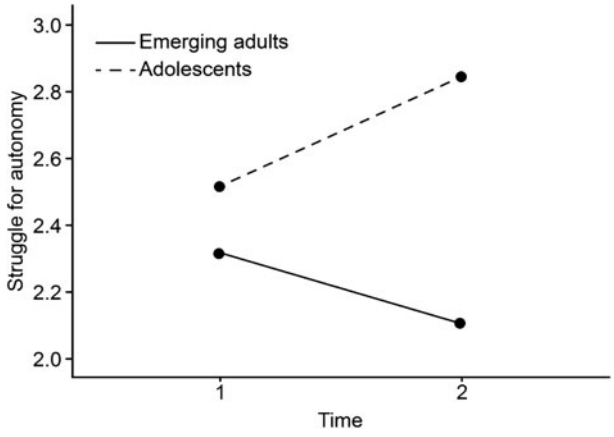

Figure 1. Change throughout treatment in the cluster struggle for autonomy – P (in the relationship with the parents) in the two groups.

Next, we examined the changes over time in the two groups. The MANOVA results yielded a main effect for time ($F_{(3,\ 56)}$ = 2.75, p = .05, partial η^2 = .12) and a main group effect ($F_{(3,56)}$ = 10.35, p < .001, partial η^2 = .35), yet power for the analysis was low. The ANOVA for the close and supportive – F cluster yielded a significant main effect for group ($F_{(1,\ 58)}$ = 4.38, p < .01, partial η^2 = .13), indicating that the emerging adults were higher on this cluster compared with the adolescents. Because there was a significant difference between the groups at Time 1 in this cluster, adjusted (residual[3]) gain scores were used to examine the differences between the groups while controlling for the initial levels. The t-test results indicated that the groups did not significantly differ in that cluster when controlling for the initial levels. No time or time × group interaction effects were observed for this cluster. The ANOVA for the negative experience – F cluster yielded a main effect

for time ($F_{(1, 58)}$ = 5.22, p < .05, partial η^2 = .08) and a main group effect ($F_{(1, 58)}$ = 6.90, p < .01, partial η^2 = .10). A t-test, which was used with the adjusted gain scores to control for the initial difference that was found for this cluster, indicated that the groups did not change differently in this cluster. The ANOVA for the cluster helping other – *F* only yielded a main group effect ($F_{(1, 58)}$ = 5.65, p < .05, partial η^2 = .08), indicating that the emerging adults had higher rates on this cluster compared with the adolescents. Thus, contrary to our prediction, there was no difference between the groups in terms of change in the clusters toward the friends/romantic partners.

Internal representations of the relationship with the therapist (Exploratory analyses 2c). The lower part of Table II presents the findings of the three therapist clusters: being helped – *T*, feel liked – *T*, and negative experience – *T*. We did not formulate a directional hypothesis for these relationships. Independent sample *t*-tests indicated a significant difference between the groups in the initial levels of the cluster being helped – *T* ($t_{(58)}$ = –4.85, p < .001), indicating that the adolescents at the beginning stage of therapy were higher in experiencing help in the relationship with their therapist compared with the emerging adults. The two groups did not significantly differ at the start of therapy for the other two clusters.

We then examined the changes over time in the two groups. The MANOVA results yielded a main effect for time ($F_{(3, 56)}$ = 54.42, p < .001, partial η^2 = .75, power > .90) and a time × group interaction effect ($F_{(3,56)}$ = 15.16, p < .001, partial η^2 = .45, power > .90). The ANOVA for the feel liked – T cluster yielded a significant main effect for time ($F_{(1, 58)}$ = 28.18, p < .001, partial η^2 = .33) and a significant (time × group) interaction effect ($F_{(1, 58)}$ = 5.35, p < .05, partial η^2 = .08). This interaction can be seen in Figure 2. A post-hoc analysis (estimated marginal means) indicated that both groups increased significantly throughout one year of treatment on this cluster; however, the extent of the change was greater for the emerging adults (adolescents: $F_{(1, 58)}$ = 4.48, p < .05, partial η^2 = .07; emerging adults: $F_{(1, 58)}$ = 29.06, p < .001, partial η^2 = .34). The ANOVA for the cluster being helped – T yielded a significant main effect for time ($F_{(1, 58)}$ = 64.78, p < .001, partial η^2 = .53), indicating that both groups increased in this cluster throughout treatment. A t-test with adjusted (residual) gain scores followed this analysis to control for the initial difference found for this cluster. The groups did not significantly differ in the change over time in this cluster. The ANOVA for the cluster negative experience – T yielded a significant main effect for time ($F_{(1, 58)}$ = 25.54, p < .001, partial η^2 = .31) and a significant (time × group) interaction effect, $F_{(1, 58)}$ = 7.4, p < .01, partial η^2 = .11. This interaction is shown in Figure 3. A post-hoc analysis indicated that the emerging adults increased significantly on this cluster ($F_{(1, 58)}$ = 30.22, p < .001, partial η^2 = .35), whereas the adolescents did not change.

The association between internal representations and outcome measures (Hypothesis 3). In order to explore the association between internal representations and outcome measures in the course of one year in treatment, we adopted a more holistic approach that looked at the clusters across all protagonists. This decision was supported by an examination of the Pearson correlations between the clusters toward the different protagonists at each time point, which yielded positive correlations between the positive clusters

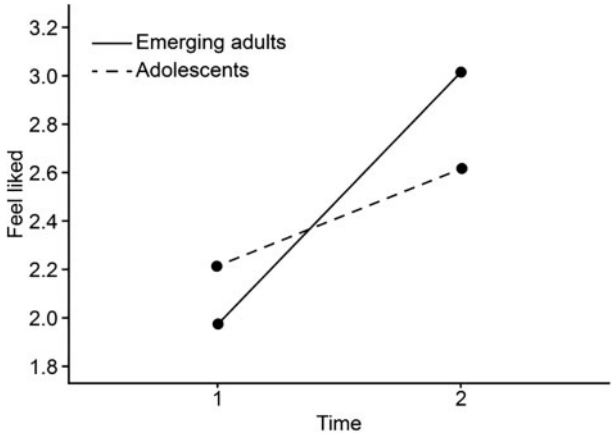

Figure 2. Change throughout treatment in the cluster feel liked – *T* (in the relationship with the therapist) in the two groups.

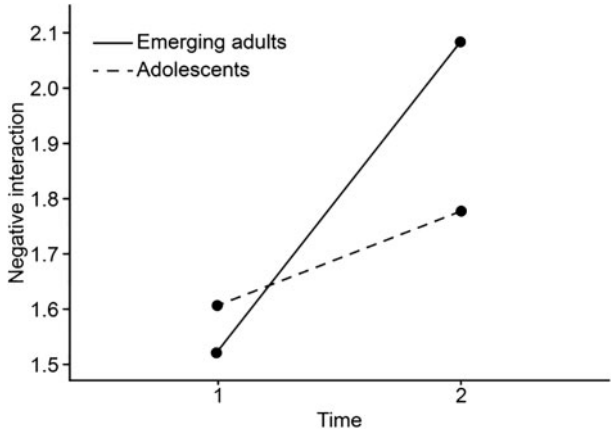

Figure 3. Change throughout treatment in the cluster negative experience – *T* (in the relationship with the therapist) in the two groups.

(close and supportive – *P*, close and supportive – *F*, being helped – *T*, and feel liked – *T*) and between the negative clusters (emotionally painful – *P*, struggle for autonomy – *P*, negative experience – *F*, and negative experience – *T*): *r* ranged across the two time points from 0.23 to 0.49, Md = .29; and there were negative correlations between the positive and negative clusters: *r* ranged across the two time points from –0.24 to –0.36, Md = –.27. Thus, each subject was assigned a *positive* internal representation score that was based on the mean of all the positive clusters and a *negative* internal representation score that was based on the mean of all the negative clusters. The cluster toward friends, help other – *F*, was not significantly correlated to any of the other clusters and therefore was not included in either the positive or negative clusters in the following analysis.

We calculated the PCs between the positive and negative internal representations and the two outcome measures at each time point for each group separately. The results indicated no significant correlations at Time 1 for either group between the positive and negative scores and the OQ and the TCS. At Time 2, however, there were significant correlations found in each of the groups. The associations between the outcome measures and the positive and negative internal representations for both groups at the second time point of treatment are presented in Table III. In the emerging adults group, a significant negative correlation was found between the positive internal representations and the OQ-45 ($r = -.46$, $p < .05$), indicating that at the second point of measurement, higher levels of positive internal representations were associated with lower levels of symptoms. In the adolescent group, there was a significant positive correlation between the negative internal representations and the TCS ($r = .38$, $p < .05$) and a marginally significant negative correlation between the positive internal representation and the TCS ($r = -.31$, $p = .05$), suggesting that lower levels of negative internal representations and higher levels of positive internal representations were associated with lower levels of subjective complaint. Contrary to our hypothesis, no significant associations were detected between change in internal representations and change in the outcome measures (Time 2 – Time 1).

Table III. Pearson correlations between positive/negative internal representations and the outcome measures at the second time point of therapy for adolescents and emerging adults.

Emerging adults		Adolescents		
TCS	OQ	TCS	OQ	
	–.46*	–.31	–.24	Positive IR
	.11	.38*		Negative IR

Note. Only correlations r > .10 are reported; For the adolescent group, the Youth Outcome Questionnaire (Y-OQ-SR, Burlingame et al., 2004) was administered; for the emerging adult group, the Outcome Questionnaire-45 (OQ-45; Lambert et al., 1999) was administered.
IR, Internal Representations; Positive IR, mean of the cluster close and supportive – P, close and supportive – F, feel liked – T, being helped – T; Negative IR, mean of the clusters emotionally painful – P, struggle for autonomy – P, negative experience – F, negative experience – T.
*$p < .05$.

Discussion

This study compared two groups of clients at ages that are characterized by increased distress and by major transformations in the relationships with significant others. Based on prior research highlighting the continuous yet specific challenges of each of these periods (e.g., Arnett, 2004), we examined whether the differences and similarities between the adolescents and emerging adults in psychotherapy were consistent with age-appropriate developmental tasks.

Our first broad goal was to compare the groups with regard to their presenting problems and symptom distress throughout treatment. The findings supported our first hypothesis (*1a*): the groups differed in the presenting problems that prompted them to seek treatment. Whereas the adolescents considered the relationship with their parents to be their primary concern, the emerging adults ranked identity issues, such as self-esteem and academic/career concerns, first. The emerging adults also emphasized intimate relationships and dating. These results suggest that adolescents and emerging adults both seek psychotherapy because of difficulties in areas that are congruent with their developmental tasks. This is in line with developmental theories that view adolescence as a period in which renegotiation of the adolescent–parent relationship dominates all other issues (Blos, 1968; Gaines, 1999) and the empirical evidence on the associations between adolescents' positive qualities of the relationships with their parents and adjustment (Collins & Steinberg, 2006; Seiffge-Krenke, 2011). The main developmental milestones in emerging adulthood are creating a long-lasting romantic relationship and achieving career goals (Ari & Shulman, 2012; Arnett, 2007), with recent research providing evidence for an association between emerging adults' romantic competence and career adaptability and well-being (Shulman, Scharf, Livne, & Barr, 2013). Our findings suggest that the difficulties of these central developmental challenges in each age group were manifested in the most common target

complaints in our sample of adolescents and emerging adults who sought professional help.

Although the adolescents and emerging adults sought treatment for different target problems, they did not differ in the levels of distress at the time they began psychotherapy. A comparison of the initial levels of the presenting problems and symptom distress (Exploratory analyses 1b) indicated that there were no significant differences between the groups on either measure. Research has indicated that in the general population, the rates of distress increase dramatically during the adolescent years remain high during emerging adulthood, and gradually decline only in adulthood (Hankin & Abela, 2005). Difficulties and distress during adolescence are a well-known phenomenon; however, recent developmental research highlights that a growing number of emerging adults experience difficulties in taking the initial steps into the adult world and as a result experience maladjustment and depression (Shulman et al., 2014). Recently, college counselors have reported seeing increasing numbers of students who present with severe forms of psychological disturbances (Blanco, Okuda, & Wright, 2008). Shulman et al., (2014) found that depressive symptoms in a sample of emerging adults who were successful in their career goals decreased over time, whereas individuals who had difficulties in achieving their goals reported an increase in symptoms. In psychotherapy research, the need to investigate adolescents as a population in risk was addressed in recent years with a growing number of studies on this group of clients (cf., Midgley et al., 2009; Weisz & Kazdin, 2010). Only a few studies have started recently to explore emerging adults as a group of clients separate from adults (Baruch & Fearon, 2002; Lindgren et al., 2010; Philips et al., 2006). Our findings join these studies and highlight the need to further explore this age group, which exhibits psychological distress similar to adolescents when turning to treatment. Our results may be specific to the treatment population that we studied, which comprised predominately undergraduate students who commonly struggle with intense pressure in various areas of life, such as choosing a career path, academic studies, financial concerns, and developing intimate relationships.

Next we examined whether the groups differed in the extent of the change in the levels of the presenting problems and symptom distress during one year of treatment while controlling for initial levels (Exploratory analyses 1c). Our results indicated that both groups significantly improved in the outcome measures throughout the year of treatment. This naturalistic study did not aim to test the effectiveness of psychodynamic therapy for youth. However, given that it did not include a non-treatment control group that would enable us to attribute the change to psychotherapy, these findings are suggestive of the potential benefits of psychodynamic therapy for adolescents and emerging adults, as previously reported in recent studies (Baruch & Fearon, 2002; Midgley & Kennedy, 2011; Palmer, Nascimento, & Fonagy, 2013; Philips et al., 2006).

Our second broad goal was to compare the groups in terms of their internal representation of significant others across treatment. This is the first study to compare the internal representations of the relationships in two developmental groups of clients receiving psychotherapy. Although there were some similarities suggesting that the groups were addressing similar relational issues, some differences were also identified. The first part of our hypothesis (2a) was not supported by the findings: at the beginning of treatment, there were no differences between the groups in the levels of representations of the parent, possibly implying that relationship schemas toward parents are similar across adolescents and emerging adults, particularly in college students who seek treatment. However, the second part of this hypothesis was supported by the findings that internal representation of the parents on issues of struggle for autonomy increased in the adolescent group, but no change was observed in the emerging adult group. There are at least two possible explanations for this finding. First, the adolescents in our sample may have focused more in therapy on autonomy issues in the relationship with the parents; these representations clearly intensified. Second, the adolescents may be more amenable to change around the autonomy issue with their parents, especially because they are living with their parents. In contrast to this difference between the groups, we found that as predicted, the perceptions of closeness and support in the relationship with the parents significantly increased in both groups, whereas the level of perceiving the relationship as emotionally painful did not change. The pattern in which the positive emotions increase but the negative emotions and perceptions do not necessarily decrease throughout treatment is in line with the contemporary approaches of psychodynamic psychotherapy, which highlight the importance of expanding the individual's range of experiences (Mitchell, 1988). In the psychodynamic psychotherapy of youth, these approaches focus on helping young individuals sustain and tolerate negative parental representations while simultaneously helping them revive good parental representations and develop additional ways to experience the self and other through psychotherapy (Gaines, 1999; Levy-Warren, 1999).

The results supported our hypothesis (2b) that the emerging adults tended to display more complex perceived relationships than the adolescents in the internal representations toward their friends/romantic partners; this finding was evident in their higher levels of both positive and negative representations of the relationships. This finding is consistent with the increase from adolescence to emerging adulthood in the use of a broader repertoire of themes in the relational narratives toward friends (Waldinger et al., 2002). The higher levels of both negative and positive clusters in the emerging adults may also reflect the higher centrality of friends and romantic partners to the emerging adults. This was also evident from our findings that the target problems of the adolescents concerned their parents, whereas the emerging adults were more concerned with problems in relationships with friends and dating. In the case of emerging adults, being away from home may increase the need for support from friends and romantic partners. More mature and less self-centered relationships in the emerging adults were also reflected in the higher level of the helping a friend cluster. No change in the internal representations of the friends/romantic partners occurred in the course of one year of treatment in either group. The representation of the friend/romantic partners may require more time to change compared with the other types of relationships and may depend on other characteristics of the client and the relationship.

In psychodynamic therapy, relationships with the therapist are viewed as important and can become deeply meaningful and emotionally charged. We explored the similarities and differences between the groups in the relationship with the therapist (exploratory analyses *2c*). Our results demonstrated that at the start of therapy, the adolescents had higher levels of experiencing help in the relationship with the therapist compared with the emerging adults, but the groups did not differ in feeling liked or having a negative experience with the therapist. In a different sample of adolescents, Tishby, Raitchick, and Shefler (2007) also found a large proportion of positive responses toward the therapist at the beginning of therapy and concluded that this reflects adolescents' need to idealize someone while temporarily distancing themselves from their parents to help forge an identity. Our findings indicate that increases in the experience of help in the relationship with the therapist throughout treatment were reported by both groups. Two interesting interactions were found: feeling liked in the relationship with the therapist significantly increased over the course of treatment in the emerging adults compared with the adolescents; at the same time, negative experiences with the therapist increased over time in the emerging adults but not in the adolescents. These findings suggest that in the course of psychotherapy, the emerging adults developed stronger positive and negative emotions in the therapeutic relationship. The ability to perceive the therapist as both good and bad at the same time may reflect the emerging adults' cognitive and ego development as well as their greater experience with close relationships that prompts more complex perceptions of the self and other (Waldinger et al., 2002). Moreover, the greater increase in the positive and negative emotions toward the therapist over the course of psychotherapy in the emerging adults may suggest their deeper emotional involvement with the therapist as treatment progressed. The increase in the positive clusters among both groups along with no decrease (in adolescents) or even increase (in emerging adults) suggest that the negative emotions toward the therapist do not necessarily block the emergence of positive emotions. This is consistent with the psychodynamic view, which highlights the importance of expanding individuals' range of emotions and perceptions through treatment (Mitchell, 1988). As described above, the same pattern of change was also evident in the relationship with parents.

Finally, we explored the relationship between internal representations and outcome measures (Hypothesis *3*). Our findings showed significant associations only at the second point in treatment. Higher levels of positive representation were associated with lower levels of symptoms among emerging adults; lower levels of negative internal representations were associated with lower levels of subjective complaints among adolescents. No significant relationship was detected between changes in symptoms and changes in internal representation. The literature on the association between internal representations of relationships and symptoms is inconclusive due to the use of different methodologies and different definitions of change in internal representations (for a review see McCarthy et al., 2008). The association between dynamic changes and symptomatic changes may not be captured in a simple linear fashion. Dose-response research indicates that most symptom improvement occurs relatively quickly at the initial phase of treatment (Hansen & Lambert, 2003), whereas dynamic changes are slower processes that continue to operate after treatment has ended (Palmer et al, 2013). It is possible that the correlation we found at Time 2 represents a change process that is characteristic of later phases in therapy, whereas initial symptom improvement may be related to factors other than internal representation (e.g., expectations from therapy). This issue should be studied further with other

methodologies to better clarify these connections, as recommended by Barber (2009).

There are several limitations in this study. First, the findings are based on a relatively small sample of adolescents and emerging adults in treatment (n = 60). Due to the large number of comparisons conducted with multiple tests, the alpha error may be inflated. Thus, the results of this study should be interpreted with caution as some of the findings turn non-significant with the use of the Bonferroni adjustment for multiple comparisons. Additionally, power analysis revealed that although for some analyses the power was sufficient, for other analyses with small or medium sized effects the power was low. Nonetheless, we believe that this exploratory study has an important theoretical value, as it is one of the first to compare processes of change in therapy within two developmental groups of clients. Future studies with larger samples would be able to use more rigorous criteria and improved power in order to draw stronger conclusions regarding the differences between the groups.

Second, it was designed as a naturalistic field study considering the psychodynamic therapy of youth without a non-treatment control group; hence, the results cannot be attributed solely to the psychotherapy. Although the internal validity in this design is more limited, it has an advantage in terms of the external validity, as it more accurately reflects the reality of the clinical work with clients in public clinics (Levy & Ablon, 2009). Third, only two assessment points were included. In future research, it would be advisable to conduct assessments on multiple occasions during treatment to capture the non-linear patterns of change (Kazdin, 2007). Fourth, this study was conducted on a sample of adolescents and emerging adults in Israel and therefore the results may be culture-specific. Israel is a Western culture and young Israelis face developmental challenges, dilemmas, and uncertainties similar to those faced by their counterparts in other Western countries (Mayseless & Scharf, 2003). However, due to compulsory military service, young Israelis go through a unique transition process in their relationship with their parents that is characterized by sharper swings between autonomy and connectedness compared to their Western counterparts. In addition, Israel is also known for its emphasis on family and communal values (Peres & Katz, 1981) so that emerging adults who leave home tend to be in close contact with their families with frequent phone calls and visits. Thus, the findings regarding the differences between the groups in the relationship with parents may be characteristic of youth in Israel. Future studies could indicate whether the pattern of our findings can be replicated in different cultures. Fifth, in this study, internal representations were assessed solely from the perspective of the clients. In future studies, it would be worth exploring the perspectives of the parents, friends/romantic partners, and therapist. Sixth, the internal representations of the friends were not differentiated from the internal representations of the romantic partners. Future studies should examine whether these two types of relationships differ in the psychotherapy of youth.

The results of this study have important implications for mental health professionals. The findings that adolescents and emerging adults seek treatment predominantly because of difficulties in achieving their developmental tasks highlights the importance of being attuned to the specific challenges of each age group in clinical work to help them return to the path of normal development and the mastery of age-appropriate tasks. The finding that emerging adults who turn to treatment have similar symptom levels compared with adolescents underscores the vulnerability of emerging adults (Shulman et al., 2014) and the importance of developing interventions tailored to their special needs, as is done with adolescents (Diamond, Diamond, & Liddle, 2000; Midgley et al., 2009). The increase in the positive internal representations toward the parents in the course of treatment combined with the stable level of negative representations suggest that therapists who treat adolescents and emerging adults must possess the capacity to balance the positive and negative representations of parents held by their clients. They must also be cognizant of the fact that the negative representations are not necessarily an obstacle and may even be a springboard for other positive experiences to emerge. The greater increase in both the positive and negative representations of the relationship with the therapist in emerging adults may suggest that a more intense form of transference develops with age. To help young individuals recover the capacity to meet developmental challenges, clinicians must realize that although both adolescents and emerging adults can benefit from psychotherapy, different relational issues will likely be at the heart of the work with each age group and different therapeutic relationships will evolve. The developmental perspective taken in this study suggests that closer connections between psychotherapy research and other fields of psychology, such as developmental psychology, can also lead to a better understanding of how to facilitate change and enhance the therapeutic relationship and outcomes of psychotherapy.

Acknowledgments

We thank Prof. Shmuel Shulman, Prof. Jacques Barber and Dr Sigal Zilcha-Mano for comments that greatly improved the manuscript. We express our deep gratitude to Dr Edna Guttmann for providing valuable statistical assistance; to our research coordinators: Miri Cardonis, Ayelet Gal-Oz and Miri Frank; to Maane, youth counseling center; and to the student psychological services at the Hebrew University for their cooperation.

Funding

This research was supported in part by Post- doctoral Fellowship of the University of Haifa to Dana Atzil-Slonim and by the Israel Science Foundation (ISF) grant 178/07 to Hadas Wiseman and Orya Tishby.

Notes

[1] A detailed description of the included and excluded CCRT categories is available upon request from the first author.

[2] An implementation of this algorithm is freely available at http://quantbio-tools.princeton.edu/cgi-bin/Iclust. The Matlab code is freely available upon request.

[3] Residual gain scores represent the difference between the pre-test and the post-test, controlling for the pre-test score.

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