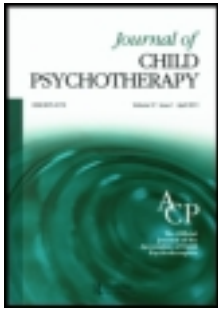


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Psychodynamic psychotherapy for children and adolescents: a critical review of the evidence base

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For many years psychoanalytic and psychodynamic therapies have been considered to lack a credible evidence-base and have consistently failed to appear in lists of ‘empirically supported treatments’. This study systematically reviews the research evaluating the efficacy and effectiveness of psychodynamic psychotherapy for children and young people. The researchers identified 34 separate studies that met criteria for inclusion, including nine randomised controlled trials. While many of the studies reported are limited by sample size and lack of control groups, the review indicates that there is increasing evidence to suggest the effectiveness of psychoanalytic psychotherapy for children and adolescents. The article aims to provide as complete a picture as possible of the existing evidence base, thereby enabling more refined questions to be asked regarding the nature of the current evidence and gaps requiring further exploration.

Keywords: child and adolescent psychotherapy; evidence-based practice; effectiveness; efficacy; outcome studies; psychodynamic psychotherapy

Introduction

For many years psychoanalytic and psychodynamic therapies have been considered to lack a credible evidence-base and have consistently failed to appear in lists of ‘empirically supported treatments’.¹ Partly this has been due to a degree of reluctance among psychodynamic practitioners to support the kind of empirical research that would help to establish such an evidence base; whilst other approaches – especially cognitive behavioural therapy – appear to have been more active; partly it can be attributed to some of the methodological challenges to properly evaluating psychoanalytic approaches, and partly due to the fact that the research which has been done has not been gathered together and widely disseminated (Midgley, 2009).

In the field of psychodynamic treatment of adults, the situation has finally begun to change over recent years, with the publication of a series of important reviews and meta-analyses (e.g. Leichsenring *et al.*, 2004; Abbass *et al.*, 2006; Leichsenring, 2008; De Matt *et al.*, 2009; Gerber *et al.*, 2011) culminating in the landmark publication of Jonathan Shedler’s paper on ‘The efficacy of psychodynamic psychotherapy’, published in the *American Psychologist* (2010). This article brought together the evidence from a number of randomised controlled trials, showing that effect sizes²

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for psychodynamic therapies are at least equal to those of other forms of treatment long-regarded as ‘evidence-based’, and that patients who receive such treatment not only appear to maintain their therapeutic gains after treatment ends, but in many instances continue to improve after treatment ends. The evidence presented in this article, according to its author, finally puts to rest the perception that psychodynamic approaches lack empirical support.

Whilst the situation may have changed in relation to the treatment of adults, research examining the efficacy and effectiveness of psychodynamic treatments for children and adolescents has lagged behind, although a number of recent publications suggest that there is now a growing interest in research in the field of psychodynamic child psychotherapy (e.g. Midgley *et al.*, 2009; Tsiantis and Trowell, 2010). This review aims to look critically at the current research evidence for the effectiveness of psychoanalytic and psychodynamic child and adolescent psychotherapy. Building on two earlier reviews (Kennedy, 2004; Kennedy and Midgley, 2007), the intention here is to provide as complete a picture as possible of the existing evidence base, thereby enabling more refined questions to be asked regarding the nature of the current evidence and gaps requiring further exploration.

Review methods

This publication builds on a systematic review that was undertaken a number of years ago (Kennedy, 2004), with the aim of updating the review to include the latest research findings.

The search strategy used in the earlier study was repeated for the period from 2004 to March 2011. All searches of the main databases in psychology and psychiatry were conducted using a combination of thesaurus terms (index terms used to retrieve references) and text words and phrases to find relevant studies. To ensure research studies were retrieved, where applicable, the search was restricted to the following publication types (roughly equivalent to research designs): experimental replication, follow-up studies, longitudinal studies, prospective studies, treatment outcomes studies and clinical trials. (For full details of the search strategy and review methods see Kennedy, 2004).

Aims

- (1) To identify and describe studies of treatment effectiveness/efficacy for psychodynamic psychotherapy with children and adolescents.
- (2) To categorise those studies according to a hierarchy of evidence of therapeutic effectiveness.
- (3) To examine outcome in different clinical groups of children and adolescents.

Inclusion and exclusion criteria

Studies were included or excluded according to the following criteria:

- (a) *Age*: children and adolescents. For the purposes of this review it was decided to include studies where a majority of participants were between three and 18 years old but none of the participants was over 25. Treatments focusing on psychodynamic work with parents and infants – although central to the work

- of many psychodynamic child therapists working today – were excluded, but have been extensively reviewed elsewhere (Sleed and Bland, 2007).
- (b) *Interventions*: studies involving individual psychodynamic or psychoanalytic psychotherapeutic treatment. As psychodynamic treatments are based on a range of theories and can be either short- or long-term, this review included all studies where the researchers defined the treatment model under investigation as psychodynamic or psychoanalytic. Studies that did not designate the model of intervention as psychodynamic or psychoanalytic or did not use descriptive terms derived from these theoretical models were excluded even if in practice the model of intervention resembled that of dynamic psychotherapy.
 - (c) *Study focus*: only studies that were primarily concerned with evaluating treatment outcomes were included. Studies which focused on the process of therapy or that involved psychodynamic investigation of particular disorders were excluded, but have been reviewed elsewhere (Kennedy and Midgley, 2007). It was beyond the scope of this review to include clinical case reports of psychodynamic child and adolescent psychotherapy, which are a popular form of reporting within this field. Systematic qualitative studies of the outcome of psychodynamic therapy with children and adolescents, focusing on the experience of treatment, were included.
 - (d) *Study quality*: as a meta-analytic summary of results would not be undertaken and it was intended to look at all available research, studies were not excluded based on quality, but a post-hoc assessment of study quality was made for each study that met inclusion criteria.
 - (e) *Other criteria*: only English-language publications were *systematically* included, although non-English language studies have been included when identified during the search or when identified through personal contacts with key informants. Unpublished studies were included but identified as such.

Data extraction

For all studies that met the inclusion criteria, a descriptive (non-quantitative) data synthesis was undertaken, that is, key study characteristics were summarised, appraised and presented in tables. A critical appraisal was undertaken of each study included, focusing on potential sources of bias in the design and conduct of the study. (Abbreviated versions of the data extraction forms for each study up until 2004 are included in Kennedy [2004], whilst the abbreviated data extraction forms for studies carried out from 2004 to 2011 are included in Appendix One).

Findings of the review

Thirty-four studies were considered to fulfil the inclusion criteria for the review, focusing on the efficacy and effectiveness of individual child and adolescent psychotherapy. Once identified, these studies were categorised according to a design hierarchy for studies of effectiveness, based on guidelines from the *Centre for Reviews and Dissemination* in York (Khan *et al.*, 2001). These guidelines place experimental studies (especially randomised controlled trials) at the top of the hierarchy, and place observational studies lower down, because they are less tightly 'controlled' from a scientific perspective (see Table 1, below).

Table 1. Quality of evidence: levels of evidence of effectiveness.

Categorisation of studies according to design hierarchy for studies of effectiveness (Khan *et al.*, 2001)

Level 1. Experimental studies: nine randomised controlled trials were identified:

- Individual psychodynamic child therapy vs structural family therapy vs recreational control for boys with a range of diagnoses (Szapocznik *et al.*, 1989)
- Time-limited psychotherapy vs time-unlimited psychotherapy vs minimal contact group for children with emotional disorders (Smyrniotis and Kirby, 1993)
- Ego-orientated individual therapy vs behavioural family systems therapy for adolescent girls with anorexia (Robin *et al.*, 1995, 1999)
- Psychodynamic orientated supportive therapy vs no treatment control for emotionally disturbed adolescent boys (Sinha and Kapur, 1999)
- Time-limited psychoanalytic child psychotherapy vs psycho-education group therapy for sexually abused girls (Trowell *et al.*, 2002)
- Time-limited psychoanalytic child psychotherapy vs family therapy for children with depression (Trowell *et al.*, 2003, 2007, 2009, 2010; Garoff *et al.*, 2011)
- Cognitive analytic therapy vs good clinical care for adolescents with borderline personality disorder (Chanen *et al.*, 2008)
- Time-limited dynamic psychotherapy vs prolonged exposure therapy for adolescents with PTSD (Gilboa-Schechtman *et al.*, 2010)
- Adolescent-focused individual therapy (AFT) vs family-based treatment (FBT) for adolescents with anorexia nervosa (Fitzpatrick *et al.*, 2010; Lock *et al.*, 2010)

Level 2. Quasi-experimental studies: three studies employed quasi-randomised methods of assignment to each treatment arm:

- Psychoanalytic child psychotherapy (alongside in-patient medical care) vs in-patient medical care only for children with dangerously uncontrolled diabetes (Moran and Fonagy, 1987; Fonagy and Moran, 1990; Moran *et al.*, 1991)
- Brief, focused psychodynamic psychotherapy vs assessment only for children with emotional disorders (Muratori *et al.*, 2002, 2003, 2005)
- Short-term psychodynamic psychotherapy vs waiting list control for children and adolescents with a range of disorders (Stefini *et al.*, 2009; Kronmüller *et al.*, 2010)

Level 3. Controlled observational studies: eight controlled observational studies were identified, using a range of control groups, including no-treatment control groups, non-matched control groups or the matching of the comparison group on the basis of clinical and demographic characteristics:

- Intensive (four times weekly) psychoanalytic child psychotherapy vs once weekly psychoanalytic child psychotherapy for children with learning difficulties and emotional disturbance (Heinicke, 1965; Heinicke and Ramsay-Klee, 1986)
 - Psychodynamically orientated therapy vs supportive educational therapy for adolescents with OCD (Apter *et al.*, 1984)
 - Psychoanalytic child psychotherapy vs no treatment control group for adopted children with 'severe difficulties' (Lush *et al.*, 1991; Boston and Lush, 1994; Lush *et al.*, 1998; Boston *et al.*, 2009)
 - Individual psychotherapy vs untreated control group attending hospital for children with 'hyperactivity and attention deficit' (Jordy and Gorodscy, 1996)
 - Long-term follow-up of psychoanalytic child psychotherapy vs no treatment control group (Midgley and Target, 2005; Midgley *et al.*, 2006; Schachter and Target, 2009)
 - Long-term psychodynamic psychotherapy for adolescents with a range of disorders vs matched non-treatment control group (Tishby *et al.*, 2007)
 - Psychoanalytic child psychotherapy vs matched non-treatment control group for children with psychological disorders (Deakin and Nunes, 2009)
 - Psychodynamic psychotherapy vs assessment only for adolescents with 'severe mental illness' (Tonge *et al.*, 2009)
-

(continued)

Table 1. (Continued)

Categorisation of studies according to design hierarchy for studies of effectiveness (Khan *et al.*, 2001)

Level 4. Observational study without control groups: 14 studies were in this category, mostly naturalistic observation studies (some retrospective but mostly prospective designs) in which treatment was not compared to any form of control group.

- Psychoanalytic child psychotherapy for children with a range of difficulties (Petri and Thieme, 1978)
- Psychoanalytic-based treatment of young children (Zelmann *et al.*, 1985)
- Psychodynamic psychotherapy for adolescents with anorexia (Vilvisk and Vaglum, 1990)
- Psychoanalytic child psychotherapy for children and adolescents (Fonagy and Target, 1994; Target and Fonagy, 1994a, 1994b; Fonagy and Target, 1996)
- Psychoanalytic psychotherapy for adolescents (Baruch, 1995; Baruch *et al.*, 1998; Baruch and Fearon, 2002; Baruch and Vrouva, 2010)
- Long-term psychoanalytic psychotherapy for children and adolescents with a range of disorders (Fahrig *et al.*, 1996; Winkelmann *et al.*, 2000)
- Psychodynamic child psychotherapy (intensive and once-weekly) for children with severe emotional disorders (Target *et al.*, 2002; Haslam, 2008)
- Long-term psychoanalytic psychotherapy for children and adolescents with a range of disorders (Kronmüller *et al.*, 2002, 2005, 2010; Horn *et al.*, 2005; Windaus, 2005)
- Psychodynamic play therapy for children with behavioural and emotional problems (Barbre, 2005)
- Supportive-expressive play psychotherapy (SEPP) for boys with disruptive behaviour disorder (Eresund, 2007)
- Psychoanalytic child psychotherapy for children and adolescents with a range of presenting symptoms (Urwin, 2007)
- Psychodynamic psychotherapy for adolescents with a range of difficulties (Bury *et al.*, 2007)
- Psychodynamic milieu therapy for children with severe trauma and early deprivation (Heede *et al.*, 2009)
- Goal-directed, time-limited child psychotherapy for children with a range of difficulties (Carlberg *et al.*, 2009; Odhamaar *et al.*, in press)

Level 5. Expert opinion based on pathophysiology, bench research or consensus: studies that met the criteria for this level of evidence were considered beyond the remit of this review. However, detailed discussion of cases within specialist journals is widely used as a method of generating hypotheses and thinking around the work (Midgley, 2006), and there is an increasing number of single case observation studies that include some form of independent outcome of both process and/or outcome (e.g. Moran and Fonagy, 1987; Lush *et al.*, 1998; Cramer, 2000; Chazan and Wolf, 2002; Alvarez and Lee, 2004; Philips, 2009; Urwin, 2009; Schneider *et al.*, 2010). Evidence from primary neuro-developmental/child development research is also used to inform thinking, as are findings from psychotherapy process research (Midgley, 2009), but such research is beyond the scope of the current review.

It should be kept in mind that a study's position in this 'hierarchy of evidence' does not necessarily reflect the *quality* of the study. There is a great deal of debate about the assumptions built into the idea of a 'hierarchy of evidence' and especially the emphasis placed on randomised controlled trials (RCTs) as the 'gold standard' for psychotherapy research (see, for example, Leichsenring, 2004; Wachtel, 2010). The fact that a study is categorised at a higher level should not automatically be taken as evidence that it is a 'better' piece of research. For example, the study by Jordy and Gorodoscy (1996) is categorised as a 'level 3' piece of research, because it is a controlled observational study, although the quality of the study as it is reported in the published paper is extremely poor; whereas the retrospective study of child psychoanalysis carried out at the Anna Freud Centre by Fonagy and Target (1996) is

an extremely well-executed piece of research, but is a 'level 4' study because it was retrospective, and does not include a control group. Similarly, qualitative studies are all categorised as 'level 4' evidence, irrespective of their quality. In other words, this table reflects a hierarchy of research *designs*, rather than a hierarchy of research *quality*.

As Table 1 illustrates, there has been an exponential growth in research in recent years, with 15 of the 34 studies having been reported on since 2004. The majority of studies that met the inclusion criteria for this review were clinic based and used clinically referred samples. The two exceptions were an Indian study which used a school based sample (Sinha and Kapur, 1999) and an American study which recruited a sample through a 'media campaign and school counsellors' (Szapocznik *et al.*, 1989). For some studies, the method of sample selection was such that it could be concluded that the most severe cases were likely to be excluded and that the samples represented a less clinically impaired group (Szapocznik *et al.*, 1989; Smyrnios and Kirby, 1993; Sinha and Kapur, 1999), but in the majority of studies it appeared that the samples were of clinically referred cases with considerable severity of disturbance.

Overall, nine randomised controlled trials were identified. Only one of these randomised trials (Sinha and Kapur, 1999) had a no treatment control group and this study was unusual in that the sample was recruited from a school rather than a clinically referred group. Eight out of the nine studies used another active treatment group as a comparison.

Findings of the review: outcomes for children and young people

Children with mixed diagnoses

As a great majority of the studies reported in this article were naturalistic, it is perhaps not surprising that most of them investigated the effectiveness of psychodynamic psychotherapy with children presenting with a range of difficulties rather than limiting their focus to a particular diagnostic category. Whilst this brings the findings of such studies closer to usual clinical practice, it limits the degree to which such findings can influence evidence-based guidelines, which in most cases are structured around specific psychiatric diagnoses. In some cases (e.g. Fonagy and Target, 1996; Kronmüller *et al.*, 2005) subsequent analyses were done of sub-sections of the sample to explore the effectiveness of therapy for specific diagnostic groups, and these re-analyses will be reported in the relevant sections below.

Whilst some studies are too poorly designed to draw significant conclusions (e.g. Petri and Thieme, 1978), other studies give some interesting indications about the effectiveness of psychotherapy for children with a mixture of difficulties. For example, Urwin (2009) shows how children receiving psychoanalytic child psychotherapy in regular community services can be shown to improve on ratings based on parents' (and therapists') own hopes and expectations for treatment, whilst Barbre (2005) has demonstrated that children with a range of behavioural and emotional problems, when offered psychodynamic play therapy in a school-based therapeutic programme, can show significant improvement with both internalising and externalising problems. However both studies are small-scale and lack any type of control group, which limits the significance of their findings.

Szapocznik *et al.* (1989) looked at Hispanic boys age six to 12 years presenting with a range of diagnoses (e.g. 32% ODD, 30% anxiety disorder, 16% conduct

disorder), but addressed some of the limitations of studies in naturalistic settings by having random allocation to a treatment or a control group. The participants in this study were recruited through a media campaign and school counsellors rather than being clinically referred. This study compared structural family therapy with individual psychodynamic child psychotherapy and a 'recreational' control. Attrition was greatest in the control group (43%) and greater in the family therapy group as compared to the individual therapy (16% vs 4%), but the final analyses of the data were only carried out on those children who had completed treatment. Among those children, both family therapy and individual psychodynamic therapy helped reduce behavioural and emotional problems relative to the recreational control group on a variety of outcome measures; but individual therapy did not appear to support family functioning. Symptomatic improvements were maintained at one-year follow-up.

In a comparable study, Deakin and Nunes (2009) looked at the effectiveness of child psychoanalytic psychotherapy in an outpatient setting in Brazil for children aged six to 11 years with a range of psychological disorders. The study used a paired control group of children from local public schools (22 in the control group and 23 in the treatment group), and found that children who received treatment showed a significant reduction in total behaviour and internalising problems after 12 months of treatment, as rated by the *Child Behaviour Check List* (CBCL; Achenbach, 1991), and improved interpersonal relationships and affect modulation, as rated by the *Rorschach*. The authors report that treatment had an overall effect size of 0.696, with treatment being most effective for girls with internalising problems.

Although without a control group, the Erica Process Outcome Study (EPOS) (Odhammar *et al.*, in press) investigated a similar population, i.e. 33 children aged between five and 10 years old, with a range of diagnoses. Using a form of goal-directed, time-limited child psychotherapy, with parallel work with parents, large effect sizes of between 1.80 and 1.98 were identified for changes in global functioning. The study was especially interesting in the way in which it compared change in global functioning on well-validated measures (e.g. the C-GAS) with in-depth case studies that revealed some of the complexities of trying to 'capture' change processes using research measures.

The EPOS study was also relatively unusual in that it studied relatively long-term treatment, i.e. continuing for between 1.5 and 2.5 years. Similarly, Fahrig *et al.* (1996), in a retrospective analysis of long-term treatments, reported an 80% treatment success rate for a range of children and adolescents referred to clinics specialising in psychoanalytic psychotherapy, using a range of measures looking at severity of impairment and reliable change. The authors report an effect size 'comparable to those of behavioural therapy' (quoted by Windaus, 2006: 3). A five year follow-up study (Winkelmann *et al.*, 2000), concluded that improvement in the period after treatment seldom occurred if difficulties were not resolved in the therapy itself; but improvements seen during therapy continued after therapy. The authors conclude: 'The global tendency is an enormous stability with a tendency towards a slight improvement of the therapy process . . . with 70–80% remaining quite stable in the follow-up period' (quoted by Windaus, 2006: 3).

Following on the success of the retrospective study, a group of researchers in Heidelberg (Kronmüller *et al.*, 2010) designed a prospective study in two stages: the first stage to examine the efficacy of short-term psychodynamic psychotherapy (compared to a waiting group control) for children and adolescents with a range of

disorders; and the second stage (with a smaller group and no control) to look at the effectiveness of long-term psychodynamic psychotherapy for the same group. Seventy-one young people were treated in the study, following a manualised treatment (Hartmann *et al.*, 1997) and using a wide range of newly developed and translated instruments, focusing especially on measures of structural change (Kronmüller *et al.*, 2010). For the shorter-term treatments, the treatment group showed a significantly higher degree of change as measured by the *Psychic and Social-Communicative Findings Report for Children and Adolescents*, whilst in the longer-term treatments statistically significant changes were found in almost all the sub-scales, as well as the total score, of the same measure. Kronmüller *et al.* (2010) report an effect size of 0.47 for the short-term treatment and an impressive 1.41 for the longer-term treatment, with security of attachment and family functioning both acting as strong predictors of good outcome (Kronmüller *et al.*, 2009; Stefani *et al.*, 2009). However, the researchers acknowledge that the sample was relatively small and heterogeneous and the lack of a control group for the longer-term treatment limits the degree to which the results can be generalised.

The Anna Freud Centre retrospective study (Fonagy and Target, 1996) reviewed 763 closed cases (covering over 90% of all treatments at the Centre) of children aged between three and 18 years old. Analyses of various sub-samples are reported in other sections below, but overall 60–70% of children with ‘moderately’ severe disturbance showed reliable improvement. Interestingly, for those with more ‘severe’ disturbance (based on a range of retrospective measures), only 20% responded well to weekly psychotherapy, whereas over 80% showed reliable improvement in more intensive (four or five times weekly) treatment. In terms of age, younger children benefited more than older children, with younger children (but not adolescents) benefiting more from intensive treatment than once-weekly psychotherapy (Target and Fonagy, 1994b).

The Anna Freud Centre long-term follow-up study looked at outcomes of child psychotherapy and psychoanalysis among a smaller sample, from childhood into adulthood (Schachter and Target, 2009). This study was designed to provide a life-span perspective on a group of children with a range of childhood disorders and specifically to examine whether gains in treatment in childhood are maintained into adulthood. In all, 34 former patients and 11 (untreated) siblings of former patients participated in the study.

Those that had received treatment in childhood were found to be functioning well and reported low levels of adversity, relatively few severe life events and good health with minimal use of medical services. They displayed adequate personality functioning across a range of domains and a low rate of personality disorders. The participants’ level of functioning as adults was significantly related to attachment security, with secure attachment being associated with better coping and functioning. A key finding of the study was that the best predictor of adult outcome was a child’s overall level of functioning as identified using the *Hampstead Child Adaptation Measure* (HCAM score; Schneider, 2000) before receiving treatment.

As part of the Anna Freud long-term follow-up study, the outcome of child psychoanalysis was also looked at from the perspective of the patient (Midgley and Target, 2005; Midgley *et al.*, 2006). This study explored the memories of adults who were in analysis as children and looked at what meaning the participants had given to the experience of therapy in the context of their later lives. While most of the participants struggled with how to evaluate the impact of psychotherapy on their

lives, the majority (two thirds) did feel that the therapy had been helpful to them. Two thirds of those who took part were able to describe some aspect of the experience of child psychoanalysis that they felt to be helpful at the time. Others questioned the potentially negative impact of the therapy. The emphasis placed by many on the importance of the experience of being listened to and understood by the therapist appears to echo the importance that children in other service-user research place on 'being heard'. Although the small, unrepresentative size of this sample means that the findings can only be tentative, the study is unique in terms of the length of follow-up and the development of an interview protocol for the long term assessment of psychoanalytic treatment.

A number of studies have reported more specifically on the effectiveness of psychodynamic treatments for adolescents. In a community-based study (Baruch, 1995) of psychodynamic treatment for adolescents and young adults presenting with multiple difficulties, an analysis of *Youth Self-Report Forms* suggested that measurable change took place during the course of therapy in all domains of functioning. However, 'externalising' problems were more difficult to treat than 'internalising' problems. A more detailed analysis indicated that the likelihood of improvement amongst those with externalising problems increased if they also presented with emotional problems or if the individual was in more frequent treatment. As an open study, the findings are limited by the lack of a control group, but the sample has been followed up at a number of points (Baruch *et al.*, 1998; Baruch and Fearon, 2002). The authors acknowledge that conclusions are difficult to draw from the data because the sample of young people who they were able to follow-up were not representative of the overall population of clients who attended psychotherapy at the Brandon Centre, and because of the high levels of attrition at later follow-up points (Baruch and Vrouva, 2010).

In some cases, studies of smaller samples have allowed a finer-grained understanding of the nature of change, although the small numbers make it harder to generalise from their findings. Tishby *et al.* (2007), for example, report on a small study of changes in interpersonal conflicts among adolescents during psychodynamic psychotherapy. Ten adolescents, aged 15 to 18, with a range of diagnoses, were offered weekly psychodynamic therapy over 12 months. Outcome was assessed using the *Core Conflictual Relationship Theme* (CCRT), (Luborsky and Crits-Cristoph, 1990). Over time there appeared to be a shift in the relationship with parents, with the young people reporting less angry and confronting relationships; whilst the relationship to the therapist shifted from the wish to be helped and understood, towards more of a wish to be understood and to be more distant.

In another recent study, Tonge *et al.* (2009) report on the effectiveness of psychoanalytic psychotherapy for adolescents with serious mental illness, based on a naturalistic longitudinal study. Forty adolescents aged 12 to 18 years, with a range of 'severe mental illnesses', were offered psychoanalytic psychotherapy once or twice weekly, whilst 40 were offered treatment as usual (TAU). The findings showed those treated with psychodynamic psychotherapy had a greater reduction in clinical symptoms and social problems compared with those offered TAU; however the greater effectiveness of the psychodynamic treatment depended on initial level of symptomatology, with a 'floor effect' identified.

The adolescent's own perspective on therapeutic change is an important factor that has received little focus in the research literature to date. Bury *et al.* (2007) used semi-structured interviews to interview six young people (aged 16 to 21) who had

been in psychoanalytic psychotherapy, and identified three superordinate themes: seeking help and engagement; the process of being in therapy; and ending therapy. It is hoped that more studies looking at the effectiveness of psychodynamic psychotherapy will include the young person's perspective, as Carlberg *et al.* (2009) have recently done as part of the EPOS study.

Children who have experienced maltreatment, trauma and neglect

The Tavistock study of children in the care system (Lush *et al.*, 1991; Boston and Lush, 1994; Lush *et al.*, 1998; Boston *et al.*, 2009) is one of the earliest systematic investigations of psychodynamic psychotherapy with children carried out in the UK. It was originally intended as a pilot study to explore how children in this group would respond to individual psychotherapy as well as looking at the accuracy of therapists' predictions regarding outcome. The majority of children in the study had improved by the end of treatment and some of the outcomes assessed were independently rated by a blind rater. Whilst the lack of randomisation and standardised outcome measures limits the conclusions that can be made regarding therapeutic efficacy, interesting information was nonetheless generated regarding the outcome of therapy and therapists' views on this.

Trowell *et al.*'s (2002) intervention study compared the outcomes of treatment for girls (aged six to 14) who had been sexually abused in a sample of 71 girls. Focused individual psychodynamic psychotherapy for up to 30 sessions was compared with up to 18 sessions of psycho-educational group psychotherapy. In addition both groups had parent/carer work. The girls were randomised to one or other treatment and the treatments were manualised. This study showed the girls to be presenting with high rates of psychiatric disturbance: post traumatic stress disorder (PTSD) was the most common diagnosis (73%), followed by major depressive disorder (57%) and separation anxiety disorder (58%).

Both treatments were demonstrated to be effective, with the psychodynamic treatment demonstrating an effect size of 0.65. Individual psychoanalytic psychotherapy appeared to have a preferential impact on the PTSD scale dimensions of re-experience of traumatic event and persistent avoidance of stimuli compared to group treatment. Generalised anxiety disorder proved the most liable to remit whilst depressive disorder and separation anxiety disorder were less likely to remit, although two thirds of those with depressive disorder and half those with separation anxiety disorder no longer had this disorder one year on.

A more recent study by Heede *et al.* (2009) looked at the effect of 'psychodynamic milieu therapy' on a group of children, aged six to 15, with histories of severe trauma and early deprivation. After two years of treatment children showed improvements on the *WISC* (Wechsler, 1991) and projective tests in regards to intellectual and emotional functioning, greater self-confidence and capacity for self-reflection. They also demonstrated greater positive expectations of others and more balanced and realistic expectations. However, the lack of a control group limits the degree to which these findings can be interpreted.

Gilboa-Schechtman *et al.* (2010), in a pilot RCT study, examined the efficacy and maintenance of a developmentally adapted prolonged exposure therapy for adolescents (PE-A) compared with an active control time limited dynamic therapy for decreasing post-traumatic and depressive symptoms in adolescents of single event traumas. Both treatments resulted in decreased PTSD symptoms and increased

functioning across a range of measures. PE-A appeared to have a greater impact on symptoms and global functioning, and after treatment more patients in the PE-A group no longer met the diagnostic criteria for PTSD (68.4% vs 36.8%). Treatment gains were maintained in both groups at both six and 17-month follow-up.

Disruptive disorders

The large Anna Freud Centre retrospective study ($n = 763$) looked at differences in outcome according to diagnostic category (Fonagy and Target, 1996). In general children with a diagnosis of disruptive disorder were harder to treat, particularly if the diagnosis was of conduct disorder rather than oppositional defiant disorder (Fonagy and Target, 1994) and in comparison those diagnosed with emotional disorders did better ($p < 0.0001$). Children with disruptive disorders were difficult to maintain in treatment and more liable to drop out, but despite this 46% of the sample of 135 children showed clinically reliable improvement (69% of those who remained in treatment). Prognosis improved for younger children and those in intensive treatment. Indeed when those children treated intensively for three years were compared, the differences in outcome between those diagnosed with disruptive disorder and those diagnosed with emotional disorder were no longer significant (Fonagy and Target, 1994). However, the retrospective nature of these studies limits the conclusions that can be drawn.

The Heidelberg study (Kronmüller *et al.*, 2010) also conducted a number of further analyses of their data according to diagnostic groupings. Winkelmann *et al.* (2005) compared children with behavioural disorders treated with short-term psychodynamic psychotherapy with a waiting list control. Thirty-one per cent of the children in the treatment group showed clinically significant improvement compared with 8% of those in the control group.

In a more recent study of psychodynamic psychotherapy for children with disruptive disorders, Eresund (2007) examined the effectiveness of twice-weekly 'supportive expressive play psychotherapy' for a small number of boys ($n = 9$) aged six to 10 with disruptive behaviour disorder (including ODD, CD, ADHD and DAMP). Some of the boys improved, particularly those diagnosed with conduct disorder although not those diagnosed with ADHD or DAMP. However the small numbers in this study and the lack of a control group make it impossible to draw any robust conclusions regarding the effectiveness of child psychotherapy for this group, based on this study alone.

Even fewer conclusions can also be drawn from Jordy and Gorodscy's (1996) study of the psychodynamic treatment of children with a diagnosis of 'hyperactivity and attention deficit', as the study outcomes are so poorly reported that it is difficult to learn any meaningful lessons.

Emotional disorders

As noted above, the large Anna Freud Centre retrospective case note study (Fonagy and Target, 1996) identified that when children were grouped according to diagnostic category, in general those children diagnosed with emotional disorders did better ($p < 0.0001$). This is a finding that was replicated in the Heidelberg Study (Kronmüller *et al.*, 2010), where those with anxiety disorders did better than children with either depression or disruptive disorders (Horn *et al.*, 2005; Winkelmann *et al.*, 2005).

Whereas 62% of the anxious children in the treatment group showed clinically significant and reliable improvement at the end of therapy, this was the case for only 8% of the subjects in the waiting list condition (Kronmüller *et al.*, 2005). Similarly, in the Anna Freud Centre retrospective study, children with emotional disorders proved amenable to psychoanalytic treatment with the vast majority of the 299 children (85%) showing a favourable response (Target and Fonagy, 1994a). Children within this category designated as being 'severely disturbed' were substantially more likely to improve if in intensive treatment (78.7% vs 26.1%).

On the basis of these findings, a pilot study carried out at the Anna Freud Centre (Target *et al.*, 2002) aimed to evaluate the treatment of children with severe and complex emotional disorders, aged between six and 12. Due to funding difficulties the full study, which aimed to compare intensive psychoanalytic treatment with once-weekly psychodynamic psychotherapy and with cognitive behavioural therapy did not take place, but extensive data were collected on four children receiving psychoanalytic/psychodynamic treatment (Haslam, 2008). Detailed analysis of these four cases indicated that significant change took place in the behavioural domain, with mean decreases in internalising problems and total scores on the CBCL, and decreased levels of anxiety and depression. However no change was identified in relation to I.Q. and attachment status largely remained constant pre- and post-therapy, although there were general shifts towards greater levels of 'coherence' in their attachment narratives.

This study is limited by the small sample and the lack of a control group, but benefits from the fact that the small number of cases were analysed intensively, thanks to the availability of multiple measures, video-recorded treatments and clear entry criteria to the study. Further analysis of the data from this pilot study has focused on the nature of the psychodynamic therapy process itself (Schneider *et al.*, 2009), including a detailed single-case analysis of one of the treatments using the *Child Psychotherapy Q-Set* (Schneider *et al.*, 2010).

Other studies have benefited from using more controlled conditions, allowing explicit comparisons between different models of intervention. One randomised trial (Smyrniotis and Kirby, 1993) looked at children age five to seven years with 'disturbances of emotion specific to childhood' who had sought assistance from the Child and Family centre in Australia where the study was based. This study randomised participants to three groups of psychoanalytically informed family and individual treatment of different lengths (time limited, time unlimited and a minimal contact control). All groups did well on a variety of outcome measures in all three arms of the study. However at four-year follow-up the 'minimal contact control' group did rather better than either the time-limited or time-unlimited psychotherapy groups. The researchers speculate that the four session 'minimal contact control' group may have proved most effective because the families' own capacities for coping and resilience had been harnessed, although the finding has to be treated with some caution as by this stage 50% of the original children had been lost to follow-up.

An Italian quasi-randomised trial (Muratori *et al.*, 2002) of structured short-term psychodynamic psychotherapy for children aged six to 11 years with emotional disorders (11 sessions, combining child-only sessions with parent-child sessions) also demonstrated the potential effectiveness of time-limited psychodynamic work, with analyses indicating that internalising problems were particularly responsive to treatment although externalising problems also improved. The overall effect size for those treated with psychodynamic psychotherapy was 0.72. The outcome was better

for those children with 'pure' emotional disorders (ICD-10) as opposed to 'mixed' emotional disorders (ICD-10).

A follow-up of this study, with a larger sample size (Muratori *et al.*, 2003) adds further to our understanding. Whilst both the experimental treatment group and the control group improved on measures of global functioning (assessed by the C-GAS; Shaffer *et al.*, 1983) in the first six months, only the experimental group showed evidence of a shift to a non-clinical range maintained at two year follow-up. At this follow-up stage, only 34% of the treatment group were still in the clinical range, compared to 65% of children in the control group. This finding suggests the possibility of some kind of 'sleeper effect', as has been identified more clearly in some studies of psychoanalytic psychotherapy with adults (e.g. Falkenström *et al.*, 2007). In a later re-analysis of those cases which met the criteria for separation anxiety disorder, Muratori *et al.* (2005) demonstrated that children receiving short-term psychodynamic psychotherapy had significantly better outcomes in terms of an overall global assessment than those who had received 'usual care'. Moreover, improvements continued during the two-year follow-up period as the superiority of outcome for children receiving psychodynamic psychotherapy compared to the control group became greater.

A randomised trial in an Indian school setting (Sinha and Kapur, 1999) selected young people who were identified as having emotional problems and who scored high on the internalising scale and low on the externalising scale of the *Youth Self Report Form* (YSR; Achenbach, 1991). Significant improvements were seen with treatment (10 sessions of psychodynamic orientated supportive therapy) in this sample. A high percentage (>90%) showed clinically significant improvements in almost all areas of functioning, including internalising problems, adjustment and interpersonal confidence.

Depression

Both the Anna Freud Centre retrospective study and the Heidelberg study did retrospective analyses of those children meeting the criteria for a depressive disorder. In the case of the Anna Freud Centre study looking at 65 children and adolescents with dysthymia or major depression (Target and Fonagy, 1994a), 75% showed reliable improvement and no depressive symptoms at the end of treatment, with intensive treatment appearing to be more helpful than once weekly psychotherapy.

The study by Horn *et al.* (2005) as part of the larger Heidelberg Study (Kronmüller *et al.*, 2010) identified 20 children and adolescents fulfilling diagnosis of major depression or dysthymia among the larger sample. In contrast to the treatment group, where 20% of the children showed clinically significant and reliable improvement, no subject in the waiting-list control group met this criterion. Nevertheless, the episodic nature of depression means that both these studies, which did not include a follow-up period, cannot be taken alone as evidence for the efficacy of treatment.

Some of the limitations in previous research were addressed by a multi-centre randomised trial by Trowell *et al.* (2007, 2009), which focused on childhood and early adolescent depression. This can be considered one of the best-designed studies of psychodynamic child psychotherapy to date. The study compared time-limited individual psychodynamic therapy (with parallel parent work) and systems integrative family therapy (Trowell *et al.*, 2007) for depressed young people aged 10 to

14 years. The trial was undertaken in London, Athens and Helsinki. In comparing the two treatments it was hypothesised that individual therapy and family therapy would lead to different responses and outcomes in the participants.

Assessment took place prior to treatment, at the end of therapy and at six months follow-up. At the end of treatment significant reductions in disorder rates were seen for both groups (Trowell *et al.*, 2007). A total of 74.3% of cases were no longer clinically depressed following individual psychotherapy and 75.7% of cases were no longer clinically depressed following family therapy. There was also an overall reduction in co-morbid conditions across the study, and improvements in family functioning (Garoff *et al.*, 2011). The changes in both treatment groups were persistent and there was ongoing improvement. At follow-up six months after treatment had ended, 100% of cases in the individual therapy group, and 81% of cases in the family therapy group were no longer clinically depressed.

Individual therapy was found to have been effective in cases of major depressive disorder, dysthymia and 'double depression'. There were no relapses in the six months following the end of treatment and in addition all cases of depression had resolved at follow-up, again suggestive of a 'sleeper effect' (i.e. an ongoing response to therapy following completion).

Children with a physical illness

Moran and colleagues undertook a series of well-designed studies looking at psychoanalytic psychotherapy as a means of helping young people with poorly controlled diabetes (Moran and Fonagy, 1987; Fonagy and Moran, 1990; Moran *et al.*, 1991). A quasi randomised study compared children with unstable insulin-dependent diabetes who received psychoanalytic psychotherapy intensively (three to five times a week for a mean period of 15 weeks) with a group of children who had unstable diabetes and who were in receipt of routine psychological input but did not receive individual psychotherapy over this period.

At the end of treatment a significant improvement in diabetic control was noted in the experimental group compared to the control group. This improvement was maintained at one-year follow-up. Clinically relevant was the reduction in glycosylated haemoglobin (a reduction in glycosylated haemoglobin represents good diabetic control) to within the 'acceptable' range for diabetes in six of the experimental group whereas none of the comparison group showed such an improvement. Four out of the experimental group and eight out of the comparison group were readmitted to hospital in the year after discharge (Moran *et al.*, 1991). As part of this study three children with diabetes and growth retardation were studied, using single case experimental design methodology. In all three cases there were gains in height over the predicted height following psychotherapeutic treatment (Fonagy and Moran, 1990).

Anorexia nervosa

Three studies have looked at the effectiveness of psychodynamic psychotherapeutic treatment for anorexia nervosa. One randomised controlled trial (Robin *et al.*, 1995, 1999) compared behavioural family systems therapy (BFST) with ego-orientated individual therapy (EOIT) for children and adolescents aged 12 to 19. Both treatments were shown to be equally effective in the treatment of anorexia. The BFST

group showed faster change on some weight measures but more cases in the BFST group required hospitalisation.

Fitzpatrick *et al.* (2010) have now manualised the EOIT model of psychodynamic treatment, and have re-named it AFT. A randomised clinical trial (Lock *et al.*, 2010) compared the relative efficacy of AFT with FBT for adolescents with anorexia nervosa, and found that both treatments led to considerable improvement and were similarly effective in producing full remission (defined as $\geq 95\%$ of normal weight as expected for sex, age and height) at the end of treatment. Rates of improvement remained good at both six- and 12-month follow-up, although levels of full remission were higher in the FBT group.

A small non-randomised study (Vilvisk and Vaglum, 1990) looked at the long-term follow-up of a group of adolescents who had received individual psychodynamic therapy for anorexia. Whilst the authors acknowledge that in an uncontrolled study it is not possible to attribute positive outcomes to the treatment received, they note that most of the young people had a good outcome. All were physically well at follow-up and 60% were doing well in terms of their 'interpersonal situation'. The authors note that younger age and stable family background may have contributed to the positive outcome.

Obsessive compulsive disorder

A small Israeli study, showed improvements in young people with obsessive compulsive disorder treated with psychotherapy who had previously failed to comply with behavioural treatment (Apter *et al.*, 1984). Seven out of the eight young people involved in the study, whether receiving psychodynamic or supportive psychotherapy, were 'much improved' by the end of treatment. However the small study size and non randomised design, limits the conclusions that can be drawn.

Personality disorders

A study by Chanen *et al.* (2008), which compared 24 sessions of cognitive analytic therapy³ with manualised good clinical care for outpatients aged 15–18 who fulfilled two out of nine of the DSM-IV criteria for borderline personality disorder found that both treatment groups demonstrated improvements at the final follow-up point (two years after baseline), and that both treatments also showed a substantial reduction over time in the chances of a parasuicidal behaviour incident. There were no significant differences in outcome between the two treatments.

Children with learning difficulties

A study by Heinicke and Ramsay-Klee (1986) looked at boys aged seven to 10 years referred with reading retardation and associated emotional disturbance. The children were given psychoanalytic psychotherapy over a period of two years. All of the children improved with treatment but those seen more frequently (four times a week for one or two years) improved most, particularly with regard to self esteem, flexible adaptation, capacity for forming and maintaining relationships, frustration tolerance and ability to work. A smaller pilot study by the same group had similar findings (Heinicke, 1965).

One non-controlled study focused on a small sample of very young children (mean age three years and eight months), the majority of whom suffered from

developmental language delay (as well as oppositional defiant disorder or in some cases pervasive developmental disorder). The mean change in I.Q level was 27.9 following psychoanalytically based treatments (Zelmann *et al.*, 1985), although the findings have to be treated with some caution, especially as the sample was selected by clinicians on the basis of those children who they felt had made significant gains from treatment.

Discussion

This review of the research literature suggests that there is some evidence to support the effectiveness of psychoanalytic psychotherapy for children and young people, but many of the studies reported in this article are small-scale, often lacking in carefully selected control groups, thus making it difficult to draw any firm conclusions with confidence. Research to date has also been hampered by the fact that it is lacking in systematic co-ordination and there has been little sense that the findings of any one individual study have been used as the basis for conducting further studies that would move towards developing a systematic evidence base. (The one exception has perhaps been the series of studies looking at the effectiveness of time-limited psychodynamic psychotherapy in the treatment of depression, which have gradually built on each other's findings to test increasingly precise hypotheses and establish a significant body of evidence for effectiveness).

It should be stressed that these limitations are common to much research in the field of child and adolescent psychotherapy, with Fonagy *et al.* (2002) identifying only 7.4% of all studies in the broader field of child mental health meeting the full criteria for a well designed study.⁴ To meet such criteria, a research team needs considerable resources as well as expertise, so it is unsurprising that a relatively small field such as psychodynamic child psychotherapy has not been able to undertake a great deal of high-powered research to date.

There were some positive aspects of the studies included in this review. The vast majority were conducted in naturalistic settings using clinically referred rather than recruited samples. A majority of studies also employed therapists working in a way that reflects day-to-day practice among child psychotherapists. Taking these factors into account it might be assumed that some of the findings of the included studies in this review are cautiously generalisable to a 'real-world' context. In addition, the number of studies focusing on long-term follow-up was impressive. Seven studies followed participants for a year or a year and a half, whilst another seven followed participants for two years; and six studies had follow-up periods of four years or more, with one of them including the adult outcomes of children treated in childhood. Such long follow-up periods add to the quality of the studies in that more robust inferences regarding the long-term impact of interventions can be made.

Studies included in the review also incorporated a range of standard psychological outcome measures as well as physical and psychoanalytically based outcomes, so that multiple perspectives and correlations between these were looked at. While beneficial outcomes were identified, adverse effects were also noted although not systematically screened for.

Although eight randomised controlled trials (the so-called 'gold standard' in outcome research) were identified, most of these trials were limited in their design by having relatively small sample sizes. The majority of them could be considered to be 'pilot' or feasibility studies with insufficient statistical power to definitively determine

treatment efficacy. The more recent RCT studies (e.g. Trowell *et al.*, 2007; Chanen *et al.*, 2008; Gilboa-Schechtmann *et al.*, 2010; Lock *et al.*, 2010) tend to be better designed, although all have significant limitations and their findings should still be taken with caution.

Although the evidence-base for psychodynamic psychotherapy with children and adolescents is still at a relatively early stage in its development, these studies have begun to give some tentative indications about who is likely to benefit most (or least) from psychodynamic child psychotherapy:

- In research investigating the treatment of adults, there is now good evidence that psychoanalytic and psychodynamic treatment is effective with a range of disorders, at levels comparable to other 'empirically supported treatments' (Shedler, 2010; Gerber, *et al.*, 2011).
- Although there are fewer studies of psychodynamic therapies with children and adolescents compared to the treatment of adults, those that exist indicate that this treatment can be effective for a range of childhood disorders, as measured by well-validated, standardised research instruments.
- Where direct comparisons have been made, psychodynamic treatment of children and adolescents appears to be equally effective to comparison treatments, with mixed findings across studies – some suggesting psychodynamic therapy is more, some less, and some equally effective as other forms of therapy (Trowell *et al.*, 2002, 2007; Chanen *et al.*, 2008; Gilboa-Schechtmann *et al.*, 2010; Lock *et al.*, 2010).
- There are some indications that psychodynamic treatment may have a different pattern of effect from other treatments. For example, when compared to systemic family therapy, depressed children appeared to recover more quickly when receiving family therapy, whilst improvements for those receiving individual psychodynamic therapy appeared to be slower but more sustained, with some young people continuing to improve after the end of treatment (Trowell *et al.*, 2003, 2007). A similar pattern of more gradual improvement, but with improvement continuing beyond the end of treatment, was found in a study of children with emotional disorders, giving some evidence of a possible 'sleeper effect' in psychodynamic therapy (Muratori *et al.*, 2003, 2005). This is in contrast to some studies of CBT, which appears to lead to quicker changes, but without such clear evidence of a 'sleeper effect' (e.g. Kendall and Warman, 1996).
- Certain children appear to be more responsive to psychodynamic treatment than others. Where age groups have been directly compared, younger children appear to benefit more than older ones, with the likelihood of improvement during treatment declining with age (Target and Fonagy 1994b; Deakin and Nunes, 2009; Odhammar *et al.*, in press). However, there are also studies that suggest that older children and adolescents can also benefit from psychodynamic therapy (Baruch 1995, Baruch *et al.*, 1998; Sinha and Kapur 1999; Tishby *et al.*, 2007; Chanen *et al.*, 2008; Tonge *et al.*, 2009; Lock *et al.*, 2010).
- Certain disorders appear to be more responsive to psychodynamic treatment than others. Children with emotional or internalising disorders seem to respond better than those with disruptive/externalising disorders (Fonagy and Target 1996; Baruch *et al.*, 1998; Muratori *et al.*, 2002, 2003; Kronmüller *et al.*, 2005, 2010).

- Children and adolescents with disruptive disorders are more difficult to engage and more likely to drop out of psychodynamic treatment; but where they have engaged in treatment there is some evidence that it can be effective (Fonagy and Target, 1994; Winkelmann *et al.*, 2005; Eresund, 2007).
- There is a particularly strong evidence-base emerging for the treatment of children and young people with depression, which in the UK led to psychodynamic treatment being identified as an evidence-based treatment in the NICE guidelines on child and adolescent depression (Target and Fonagy 1994b; Horn *et al.*, 2005; Trowell *et al.*, 2007).
- There is also a range of studies that suggest that psychodynamic work is effective with children who have experienced abuse, maltreatment and trauma, although the group is too diagnostically diverse for this to be reflected in NICE guidelines (Lush *et al.*, 1998; Trowell *et al.*, 2002; Heede *et al.*, 2009; Gilboa-Schechtman *et al.*, 2010).
- In samples that can be assumed to have lesser degrees of difficulty either because of the setting or selection criteria, short-term and even minimal interventions were shown to be effective (Smyrniotis and Kirby, 1993; Sinha and Kapur, 1999; Muratori *et al.*, 2002, 2003).
- When children present with more marked difficulties, e.g. with conduct disorder or severe emotional disorder, the intensity of the treatment may be important (Heinicke and Ramsay-Klee, 1986; Boston and Lush, 1994; Fonagy and Target, 1994, 1996).
- There were some indications of potential adverse affects. One study suggested that if psychodynamic child psychotherapy was offered without parallel work with parents, this could be counter-productive (Szapokznik *et al.*, 1989). Another study suggested that for adolescents receiving more intensive therapy (three to five times per week) rather than once weekly therapy did not improve outcomes (Target and Fonagy, 1994b), and that more intensive work could, in some cases, add to the adolescent's sense of 'stigma' (Midgley *et al.*, 2006).

Strengths and weaknesses of the review

One of the main strengths of this review is the comprehensive search strategy. All relevant biomedical, psychological, educational and childcare electronic databases were searched. Searches were conducted over the entire lifespan of these databases and these searches were supplemented by hand-searching and contacting leading researchers in the field in order to ensure that the review was comprehensive. The search was undertaken systematically according to a pre-defined methodology.

This is one of the first critical reviews to specifically focus on psychodynamic child psychotherapy. Recent reviews of the evidence base for a range of treatments in childhood and adolescence were, inevitably perhaps, more restricted in focus in terms of the number of databases searched, the time-span covered and explicit exclusion of foreign language research (e.g. Fonagy *et al.*, 2002; Weisz and Kazdin, 2010). The specific focus of this review allows a look at the totality of research, both past and current, and enables comparison across studies.

There are also significant weaknesses in this review. The relatively broad inclusion criteria means that some studies have been included that would have been excluded if more stringent criteria had been applied. The heterogeneity of clinical populations studied as well as variations in the nature of the intervention itself limits

the degree to which comparisons can be made across studies and firm inferences drawn, and this was one of the reasons why a meta-analysis of findings was not attempted.

Conclusion

One positive message taken from this review is that the amount of research investigating the efficacy and/or the effectiveness of psychodynamic psychotherapy with children and adolescents has increased decade by decade from the 1970s through to the present day, so that we are beginning to gain some understanding of 'what works for whom' in regard to psychodynamic treatments for children and young people.

Clearly, there is a pressing need for further, high-quality research in this field. In the UK, an example of such research currently under way is the IMPACT Study (Goodyer *et al.*, 2011), funded by the NIHR Health Technology Assessment. This study, investigating the effectiveness of short-term psychodynamic psychotherapy for relapse prevention among adolescents with moderate to severe depression, builds on early studies by Target and Fonagy (1994a) and Trowell *et al.* (2007), but aims to take the next step in establishing the evidence-base for this type of treatment. With a large sample ($n = 540$), careful randomisation, manualised treatment, systematic checks on treatment fidelity and a range of outcome measures at both the end of treatment and at follow-up, this study looks set to be the most comprehensive investigation of the effectiveness of psychodynamic child and adolescent psychotherapy to date. In addition, a number of other on-going studies targeting specific diagnostic groups, such as children suffering from severe anxiety (Weitkamp *et al.*, 2011), bulimia nervosa (Kronmüller *et al.*, 2011), personality pathology in adolescence (Odom and Foelsch, 2011) and social phobia in children (Milrod, personal communication 7 August 2010), suggest that the evidence-base for psychodynamic work with young people is likely to grow over the coming years.

Further research will hopefully clarify a range of questions regarding treatment effectiveness. In common with other psychological therapies the mechanisms whereby change is brought about and the mediators and moderators of treatment effectiveness are poorly understood (Midgley, 2009). Current outcome studies which aim to address issues such as the role of transference interpretation (Ulberg, personal communication 18 November 2010) or the role of the therapeutic alliance (Goodyer *et al.*, 2011), will help move our understanding forward. Greater attention also needs to be paid to the potential adverse effects of treatment and the circumstances under which particular treatments and combinations of treatment might work best. A study currently being planned in Portugal to look at predictors of drop-out in psychodynamic therapy with adolescents, for example, could have important implications for clinical practice (Torres, personal communication 11 January 2011). Such studies would allow us to move towards a greater understanding, not only of 'what works for whom?', but also to address some of the more nuanced – but vital – issues concerning what makes therapy optimally effective and how such findings from research can be best translated into the 'real-world' of clinical practice.

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Notes

1. For the purposes of this article, the term ‘psychodynamic’ will be used as an umbrella term to cover all therapies that describe themselves as psychoanalytic or psychodynamic. Whilst psychodynamic child and adolescent psychotherapy is the specific focus of this review, the term ‘child psychotherapy’ can be used more broadly to cover all psychotherapeutic interventions with children, whatever actual model of intervention is used. There have been a substantial number of reviews and meta-analyses of ‘child psychotherapy’ research more broadly (for an overview see Fonagy *et al.*, 2002; Weisz and Kazdin, 2010), but until now there have been very few systematic reviews of the outcome literature in the field of psychodynamic psychotherapy for children and adolescents more specifically.
2. The ‘effect size’ of a treatment is a descriptive statistic that conveys the estimated magnitude of a relationship, e.g. between the delivery of a treatment and a particular outcome. An effect size of 0.2 is typically considered to be ‘small’; 0.5 ‘medium’ and anything over 0.8 as ‘large’.
3. Cognitive analytic therapy is described as a time-limited, integrative psychotherapy which ‘arose from a theoretical and practical integration of psychoanalytic object relations and cognitive psychology’ (Chanen *et al.*, 2008: 479). The primary author of the study confirmed that he considered it as a ‘psychodynamic treatment’ (Chanen, personal communication, 3 April 2011), and as such, it met the criteria to be included in this review.
4. These criteria include: a group-comparison design with random assignment; well-documented treatment procedures; uniform therapist training and evidence of adherence; clinical samples; multi-method outcome assessment; tests of clinical significance; functional outcomes in addition to symptoms; and assessment of long-term outcome.

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Appendix 1. Table of studies from 2004 to 2011. (For similar details of earlier studies, see Kennedy, 2004)

Authors	n	Location	Age	Type of problem	Design	Control group	Type of therapy	Primary outcome measures
Barbre (2005) <i>The Harlem Family Institute One-Year Research Project.</i>	Not specified	USA	6–12	Mixed diagnoses	Observational study without control group	n/a	Psychodynamic play therapy	Child Behaviour Check List (CBCL), BarOn Emotional Quotient Inventory, Children's play therapy instrument).
Bury <i>et al.</i> (2007) <i>Young people's experiences of individual psychoanalytic psychotherapy.</i>	n = 6	UK	16–21	Mixed diagnoses	Observational study without control group	n/a	Psychoanalytic psychotherapy	Interpretative phenomenological analysis
Chanen <i>et al.</i> (2008) <i>Early intervention for adolescents with borderline personality disorder</i>	n = 78	Australia	15–18	Emerging borderline personality disorder	Randomised controlled trial	Good clinical care	Cognitive analytic therapy	SCID-II, K-SADS-PL, Youth Self Report Form (YSR), Social and Occupational Functioning Assessment Scale (SOFAS)
Deakin and Nunes (2009) <i>Effectiveness of child psychotherapy in a clinical outpatient setting.</i>	n = 55	Brazil	6–11	Mixed diagnoses	Controlled observational study	Non-treated control	Individual psychoanalytic psychotherapy	Rorshach, Bender, WISC III & CBCL.
Eresund (2007) <i>Psychodynamic psychotherapy for children with disruptive disorders.</i>	n = 9	Sweden	6–10	Disruptive behaviour disorder	Observational study without control group	n/a	Psychodynamic Supportive Expressive Play therapy (SEPP)	WISC III, CBCL, TRF, a ^b draw-a-man ^a test
Gilboa-Schechtman <i>et al.</i> (2010) <i>Prolonged Exposure Versus Dynamic Therapy for Adolescent PTSD.</i>	n = 38	Israel	12–18	PTSD	Experimental study	Prolonged exposure therapy	Time limited dynamic therapy.	Schedule of Affective disorders & Schizophrenia for School-Age Children Revised for DSM-IV (K-SADS-PL), CGAS, CPSS (Child PTSD Symptom Scale), BDI (Beck Depression Inventory).

(continued)

Appendix 1. (Continued)

Authors	n	Location	Age	Type of problem	Design	Control group	Type of therapy	Primary outcome measures
Heede <i>et al.</i> (2009) <i>Psychodynamic milieu-therapy and changes in personality.</i>	n = 24	Denmark	6–15	Mixed diagnoses	Observational study without control group	n/a	Psychodynamic milieu-therapy	Thematic Apperception Test, WISC III, Rorschach.
Kronmüller <i>et al.</i> (2010) <i>The Heideberg Study of Psychodynamic Psychotherapy for Children & Adolescents.</i>	n = 71	Germany	6–18	Mixed diagnoses	Quasi-experimental study.	Waiting list control	Psychodynamic psychotherapy.	The Psychic & Social Communicative Findings report (PSCR-CA). Severity of impairment score for children & adolescents (SIS-CA), Expected ideal body weight (IBW) and Eating Disorder Examination (EDE) global score. Body Mass Index (BMI).
Lock <i>et al.</i> (2010) <i>Randomised Clinical Trial comparing Family Based Treatments with Adolescent focused individual therapy for adolescents with Anorexia Nervosa</i>	n = 24	USA	12–18	Anorexia Nervosa	Randomised Clinical Trial	Family-based treatment (FBT)	Adolescent-focused individual therapy (AFT)	
Odhammar <i>et al.</i> (in press)	n = 33	Sweden	5–10	Mixed diagnoses	Observational study without control group	n/a	Psychodynamic psychotherapy	CGAS (Children's Global Assessment Scale) HCAM (Hampstead Child Adaptation Measure)
Schachter and Target (2009) <i>The adult outcome of child psychoanalysis: the Anna Freud Centre long-term follow-up study.</i>	n = 45	UK	3–18	Mixed diagnoses	Controlled observational study	Non-treated control	Psychoanalytic child psychotherapy	Adult Attachment Interview, SCID-II, Adult Functioning Index (AFI)

(continued)

Appendix 1. (Continued)

Authors	n	Location	Age	Type of problem	Design	Control group	Type of therapy	Primary outcome measures
Target <i>et al.</i> (2002) <i>Pilot study for a prospective study of the outcome of child psychoanalysis and psychotherapy</i>	n = 4	UK	6–12	Severe emotional disorders	Observational study without control group	n/a	Psychoanalytic child psychotherapy	CBCL, Child Depression Inventory (CDI); State-Trait Inventory for Children (STAIC); Happe's Strange Stories, Child Attachment Interview, MsArthur Story Stem Battery, Hampstead Child Adaption Measure, RAP (Relationship Anecdote Paradigm) interview was used to collect narratives for the CCRT (Core conflictual relationship theme) method.
Tishby <i>et al.</i> (2007) <i>Changes in interpersonal conflicts among adolescents during psychodynamic psychotherapy.</i>	n = 10	Israel	15–18	Mixed Diagnoses	Controlled observational study	Non-treated control group	Psychodynamic psychotherapy	Youth Self Report (YSR), CBCL, Family Assessment Device (FAD), Global Assessment of Functioning (GAF), Global Assessment of Relational Functioning (GARF).
Tonge <i>et al.</i> (2009) <i>Effectiveness of psychoanalytic psychotherapy for adolescents with serious mental illness.</i>	n = 80	Australia	12–18	Mixed Diagnoses	Controlled observational study	Assessment only control group	Psychoanalytic psychotherapy	Child Depression Inventory (CDI), The Kiddie SADS, Moods and Feelings Questionnaire, C-GAS, Hopes and Expectations of Treatment Approach
Trowell <i>et al.</i> (2007) <i>Childhood Depression: a place for psychotherapy.</i>	n = 72	UK & Finland	9–15	Depressive Disorders	Experimental study	Systemic family therapy	Psychoanalytic psychotherapy	
Urwin (2007) <i>Revisiting "what works for whom?": a qualitative framework for evaluating clinical effectiveness in child psychotherapy.</i>	n = 15	UK	3–18	Mixed Diagnoses	Observational study without control group	n/a	Psychoanalytic child psychotherapy	