

Models of service delivery and interventions for children and young people with high needs

Literature review



Literature review

Models of service delivery and interventions for children and young people with high needs

Authors

Dr Virginia Schmied (Centre for Parenting and Research)
Dr Suzanne Brownhill (Centre for Parenting and Research)
Peter Walsh (Centre for Parenting and Research)

Produced by

Centre for Parenting & Research
Research, Funding & Business Analysis Division

NSW Department of Community Services
4-6 Cavill Avenue
Ashfield NSW 2131
Phone (02) 9716 2222

September 2006

Acknowledgements

Many thanks to Dr Helen Harrison, who prepared a background paper on the US Systems-of-Care model. Thanks also to Dr Paul Delfabbro (University of Adelaide), Professor Judy Cashmore (University of Sydney) and Jeff Gild (Senior Policy Officer, OOHC Directorate, DoCS), who provided valuable comments on a previous draft of the report.

ISBN 1 74190 017 4

www.community.nsw.gov.au



Contents

Executive summary	iii
1. Introduction	1
1.1 Purpose of this review	1
1.2 Nature and characteristics of children and young people with high needs	2
1.3 Structure and scope of the review	4
1.4 Methodology of the review	7
1.5 Methodological issues in assessing effectiveness	8
2. Therapeutic foster care	9
2.1 Background and description of therapeutic foster care	10
2.2 Outcomes for children and young people with high needs using TFC	12
2.3 Factors influencing outcomes of TFC	14
2.4 Conclusions	17
3. Residential care	18
3.1 Background and description of residential care	19
3.2 Evidence of effectiveness of residential care for children and young people with high needs	21
3.3 Factors influencing outcomes	22
3.4 Conclusions	24
4. Multi-systemic therapy	26
4.1 Background and description of MST	27
4.2 Evidence of effectiveness of MST for children and young people with high needs	28
4.3 Outcomes for young people and families with high needs using MST	30
4.4 Factors influencing outcomes for young people with high needs using MST	31
4.5 Conclusions	32
5. Service coordination and integration	33
5.1 Case management	34
5.2 Wraparound	38
5.3 The US 'Systems-of-Care' as a model of integration	43
6. Overall conclusions and future directions	50
6.1 Summary of key findings	50
6.2 Key issues arising from this review	52
6.3 Innovative approaches and future research potential	54
6.4 Potential questions for further research	57
6.5 Conclusion	58
References	59

Executive summary

Children and young people in the child welfare system who have high needs generally present with complex problems, including significant histories of abuse (as victims, perpetrators or both), serious mental health issues, 'challenging' behaviours, intellectual and learning disabilities, histories of school suspension/expulsion, and difficult familial relationships. These children and young people are often involved in two or more service systems.

The purpose of this review is to assess the evidence for the effectiveness of services and interventions for children and young people with high emotional and behavioural needs who are in out-of-home care (OOHC) or at immediate risk of entering OOHC. Given that most of the research has been conducted in the United States, the review discusses key issues in applying promising services and interventions to the Australian context. In addition, it examines approaches for the coordination and integration of multiple services for children and young people with high needs. Finally, it highlights areas where further research is needed.

The literature search and review has identified three key services or programs that are dedicated to addressing the needs of these children and young people:

- therapeutic (treatment) foster care
- residential care
- multi-systemic therapy.

The literature also highlights the need for effective approaches to service coordination and integration as a key component of any successful service system or intervention providing for the multiple and complex needs of these children and young people and their families. Three approaches or models of coordination and integration are examined in the review:

- case management
- Wraparound
- the US Systems-of-Care model.

The review describes each of these services, interventions and approaches to coordination and service integration, examines the evidence for outcomes and effectiveness, and identifies factors that influence outcomes for children and young people.

Therapeutic foster care

Therapeutic (or multidimensional treatment) foster care is an intensive, family-based therapeutic approach for children and young people with serious emotional and behavioural disorders. To date, therapeutic foster care (TFC) has demonstrated efficacy in reducing violent crime by chronic juvenile offenders (Hahn et al., 2005), and has been assessed as a 'promising or probably efficacious' intervention for children with high needs within the child welfare population (Farmer, Dorsey & Mustillo, 2004).

The best outcomes occur for children and young people with the least emotional and behavioural problems, fewer prior placements and less time spent in institutions, as well as good relationships with their foster family members. Based on current evidence, TFC appears to be most successful for children under the age of 14 and for boys rather than girls, with previous out-of-home care (OOHC) placement as the most significant predictor of impairment and change in mental health status over time.

Residential care

The term 'residential care' is used to describe a number of service modalities. This variation in service delivery, combined with the broad use of this term and the lack of comparative studies, makes evaluation of its effectiveness at all levels difficult.

Early research has generally reported poor outcomes for children and young people in residential care and, as a result, use of residential facilities has declined throughout the western world, with an increase in alternative forms of care. However, there continues to be a small but vulnerable group entering residential care whose complex needs are regarded as 'difficult to treat'.

Outcomes for children and young people cared for in residential settings are mixed. More positive outcomes are associated with a young person's perceived level of support from family and community, both within the care setting and in the after-care environment. Variables found to be either not correlated or weakly correlated with outcomes include demographic factors such as age and IQ (intelligence rating), prior contact with the juvenile system, severity of the young person's presenting problem, and type and length of treatment.

Few studies suggest that residential care has nothing to offer at all. However, there is little evidence to make clear recommendations about what types of young people are likely to benefit from what types of residential settings (Little, Kohm & Thompson, 2005). The findings of the review point to issues surrounding attachment and trauma and the need for therapeutic environments.

Multi-systemic therapy

Multi-systemic therapy (MST) is an intensive, goal-oriented, time-limited (typically three to six months) home- and family-focused treatment approach designed to equip children and young people and their families with the skills to function more successfully in their community environment. It is an evidence-based treatment which uses the family preservation model of service delivery.

Several reviews have classified MST as a 'probably efficacious' treatment according to the criteria for empirically supported treatments (Brestan, Eyberg & England, 1998; Burns, Hoagwood & Mrazek, 1999; Chorpita et al., 2002). More specifically, MST has been shown to attenuate antisocial behaviour, such as aggression and criminal offences, and to improve social behaviour, such as family and peer relations (Henggeler, Melton & Smith, 1992; Borduin, Henggeler, Blaske & Stein, 1990; Henggeler et al., 1986).

Outcomes for young people rely on commitment to the MST strategy and adherence to its principles, training of the therapists, cooperation among relevant staff, involvement with peers and community or neighbourhood, and positive interaction between each system, if not all systems.

In addition, there are some limitations to the translation of MST to other contexts, in that most MST evaluations have involved juvenile justice populations, been implemented in the US, and been conducted by the developers. Therefore, MST's effectiveness with younger children with milder forms of behavioural disorder is yet to be independently evaluated.

Service coordination and integration

Case management

Case management is considered an essential component of each of the services and interventions described in this review, including Wraparound and Systems-of-Care (Winters & Terrell, 2003), and is developing a convincing evidence base (Evans & Armstrong, 2002; Farmer et al., 2004). While sharing similarities with Wraparound, case management operates at the client (i.e. child and family) level, whereas Wraparound, in general, works at the system level, emphasising service planning, coordination and linking of services.

Wraparound

Wraparound is an approach to care defined as a 'planning process involving the child and family that results in a unique set of community services and natural supports individualised for that child and family to achieve a positive set of outcomes' (Burns & Goldman, 1999:28). While case management is a central component of Wraparound, the focus of Wraparound is the way in which service delivery is planned (Farmer et al., 2004).

Studies examining outcomes of Wraparound for young people show reductions in the number of days and level of restrictiveness of residential placements, improvements in school performance and psychological and behavioural functioning (Burns, Schoenwald, Burchard, Faw & Santos, 2000). However, Wraparound's 'flexible' and 'individualised' nature and grassroots development makes rigorous evaluation difficult. As such, there is a lack of empirical evidence to show whether Wraparound works any better than regular services such as individualised therapies.

The US Systems-of-Care model

The Systems-of-Care model, developed in the US, represents an attempt to achieve an integrated approach at the broader level of systems and organisations in order to address the multiple service requirements of children and young people with high needs. This model aims to provide improved organisational and interagency arrangements as a key component of the program logic for delivering services to this target group.

There have been several reviews of the empirical status of the Systems-of-Care model. Most notable are reviews by Rosenblatt (1998), Holden et al., (2003), Friesen and Winters (2003) and Cook and Kilmer (2004). The consensus has been that there is a growing body of evidence suggesting that Systems-of-Care can lead to improved interagency working. However, the gains for the children and adolescents and their families have been modest. As a result, the evidence is mixed regarding the effectiveness of Systems-of-Care on outcomes for children and young people with high needs.

Methodological limitations

Research design limitations have been identified across all services and interventions for children and young people with high needs. These include limited use of control or comparison groups and lack of valid and reliable outcome measures (with little attention given to the importance of intervening variables, sampling problems, variation in program implementation and variability of participants), making evaluation of effectiveness and comparison between studies difficult (Barth, 2002; Bates, English & Kouidou-Giles, 1997; Berrick, Barth, Needell & Jonson-Reid, 1997; Curtis, Alexander & Lunghofer, 2001; Hair, 2005; James & Meezan, 2002; Reddy & Pfeiffer, 1997).

Conclusions

Overall, there are benefits to children and young people with high needs from each of the services and interventions examined in this review. Common outcomes reported for children and young people receiving the services and interventions reviewed were improved social, emotional, psychological and behavioural functioning, improved school performance, and reduction in the number of days and level of restrictiveness of placement.

There are several common principles that underpin the models of service delivery and interventions discussed, including:

- A theoretical and conceptual basis
- Emphasis on the multiple needs of children and young people and their families
- Well-trained, skilled staff who are well supported
- Active involvement of the family, and maintaining community connections for children and young people
- Provision of transitional and after care services.

What appears to be most strongly related to positive outcomes is the quality and length of the relationship between those being cared for and those providing care.

At a broader systems level, expected outcomes include the establishment of new and improved systems and partnerships; improvements in accessibility, quality and quantity of services; and communication among services, in order to achieve improvements in child and family outcomes.

There are several key issues important to the further development of services and interventions for children and young people with high needs. These include:

- Shifting the focus of interventions from a behaviour management approach to one that is based on theories of attachment and trauma
- Gaining knowledge about the characteristics of the relationship or therapeutic alliance that facilitates positive outcomes for children and young people with high needs
- Recognising that program fidelity may be compromised by service availability and availability of family and community resources
- The need for increased knowledge of the impact of community-level factors on interventions and outcomes for children and families
- The importance of gaining the perspectives and participation of children
- The need to understand the nature and impact of peer interaction – when is it positive and when is it negative?

1. Introduction

Every child and young person needs security, stability and nurturance within the context of family, school, and neighbourhood or community (Barber & Delfabbro, 2004; Massinga & Pecora, 2004; Yampolskaya, Paulson, Armstrong, Jordan & Vargo, 2004). However, a significant minority of children and young people struggle within those social contexts and this typically brings them to the attention of multiple government and non-government agencies in order to obtain these basic needs (Howell, Kelly, Palmer & Magnum, 2004; Wandersman & Florin, 2003).

The primary response for children in need (otherwise known as ‘welfare children’) in the mid- to late 1800s was served by institutions. As this period coincided with the development of child neglect legislation, it also marked the beginning of greater government acceptance of responsibility in the child welfare sector. In Australia, the 1960s saw the end of the orphanage system, with many large children’s homes closed down. For ‘out-of-home’ children, the emphasis of care was their placement with relatives and friends, and in foster homes (Community Affairs Reference Committee, 2004: 48).

Since then, the number of children in out-of-home care has steadily increased (AIHW, 2005). The needs of those requiring care have also changed over time, becoming more complex and multidimensional. For instance, issues which children and young people bring with them into care are generally related to psychological adjustment, social, behavioural and emotional functioning, trauma and attachment-related problems (Osborn & Delfabbro, 2006).

The high level of need of children and young people requiring out-of-home care should be matched by appropriate and effective services and interventions. This review examines the nature and characteristics of children and young people with high needs, a range of models of service delivery and interventions designed to meet those needs, and evidence for their effectiveness.

New models and approaches that focus on providing therapeutic environments for children and young people with high needs (e.g. Sanctuary model, Stop-gap model, Turnaround and Take Two) are discussed in the final section of this review. These innovative approaches are indicative of a shift from care settings that focus on behaviour management to approaches that incorporate a more therapeutic model of care which promotes a safe and supportive environment for children and young people within which to heal psychological and social trauma experiences.

1.1 Purpose of this review

This review aims to assess the evidence for the effectiveness of services and interventions for children and young people with high emotional and behavioural needs in the child welfare system and to inform the delivery of services and interventions.

Because these children and young people have multiple service needs, the literature drawn on in this review comes from a number of fields, including mental health and psychiatry, criminology and juvenile justice, special education and child welfare.

Given that most of the research has been conducted in the United States, the review discusses key issues in applying promising services and interventions to the Australian context. In addition, it examines approaches for the coordination and integration of multiple services for children and young people with high needs. Finally, it highlights areas where further research is needed.

1.2 Nature and characteristics of children and young people with high needs

Children and young people with high needs generally present with complex problems, including significant histories of abuse (as victims, perpetrators or both), serious mental health issues, 'challenging' behaviours, intellectual and learning disabilities, histories of school suspension/expulsion, and difficult familial relationships. These children and young people are often involved in two or more service systems.

The Department of Community Services (DoCS) defines children and young people with high needs in the following way (Department of Community Services, 2004):

'A child or young person who:

- exhibits challenging and/or risk-taking behaviours of such intensity, frequency, and duration that they place themselves or others at serious risk of harm, and/or
- has mental health presentations which impair their ability to participate in an ordinary life and which reduce access to services, activities and experiences, and/or
- has a disability with high level challenging behaviours or complex health issues which are life threatening or require continuous monitoring and intervention.'

The term 'children and young people with high needs' will be used in this review to encompass all groups and categories of children with high needs, including high and complex needs.

1.2.1 Limited Australian research

Few studies have examined the nature and characteristics of children and young people with high needs in Australia. However, two recent studies, one by Osborn and Delfabbro (2006) and the other by Tarren-Sweeney and Hazell (2006), provide some important insights into this group.

Osborn and Delfabbro (2006) conducted a case file study in four Australian States (South Australia, Western Australia, Queensland and Victoria) examining out-of-home children with two or more placement breakdowns ($n = 364$, mean age = 12.9, $sd = 3.19$). The total sample had experienced a range of two to 55 placements during their time in out-of-home care (mean = 10.53, $sd = 7.80$). Just under half of the total sample (47.3%) had experienced at least one relative care placement, and 56.5% had experienced at least one residential/group care placement.

The results showed that almost three-quarters of the children came from households with domestic violence or physical abuse; two-thirds had parents with substance abuse problems, and almost three in five had been neglected. Half the sample had parents with mental health problems, significant financial problems, or homelessness. The majority of the children and young people had suffered physical abuse (73.4%), sexual abuse (65.9%) and neglect (58.2%). Just over 90% of the sample had experienced at least one form of abuse or neglect. Low levels of family contact and poor social functioning were also evident in the children across the States. Of those attending school or TAFE/apprenticeship programs (73.1%), 34% had been suspended and 12.7% had been excluded (Osborn & Delfabbro, 2006).

Tarren-Sweeney and Hazell (2006) conducted a prospective epidemiological study which provided baseline data of mental health problems in children in foster care in NSW ($n = 547$, mean age = 7.8). The key findings suggested poor mental health and social competence in children. Disturbances in children were generally characterised by attachment difficulties, relationship insecurity, sexual behaviours, trauma-related anxiety, conduct problems and defiance, and inattention/hyperactivity. Even though the study focused on a younger age group than the focus of this review and was not specifically related to children and young people with high needs, the implication was that without appropriate intervention these children were at high risk of becoming 'high needs' adolescents (Tarren-Sweeney & Hazell, 2006).

The limited Australian research on this population correlates with international studies.

1.2.2 International research findings

Many children and young people with high needs in care experience emotional problems at various levels of intensity. These may include major depression, anxiety disorders, post-traumatic stress disorder, bipolar disorder, reactive attachment disorder, and suicidality. Some enter care with complex problems, including significant histories of abuse (as victims, perpetrators or both), intellectual disability and serious mental health issues, learning disabilities, histories of school suspension/expulsion, difficult relationships with natural families, and 'challenging' behaviours (Bath, 2001; Malmo Declaration, 1990).

Behavioural problems include school truancy, running away, antisociality, hyperactivity, attention deficit disorder, oppositional defiant disorder, adjustment disorder, obsessive compulsive disorder and conduct disorder (Biglan, Brennan, Foster & Holder, 2004; Blackman, Eustace & Chowdhury, 1991; Liao, 2001; Loeber & Farrington, 2001; Stathis & Martin, 2004).

Some of the more vulnerable children and young people may experience three or more coexisting problems (Rosenblatt & Rosenblatt, 2000). They may also carry with them a sense of hopelessness, of personal 'wasted potential' (Community Affairs Reference Committee, 2004: 29), of having no-one to turn to, and of having an unpredictable future.

1.2.3 Involvement in multiple service systems

Young people with high needs are often involved in two or more service systems (Muscat, Baron, Baron & Spencer, 2001). Figures from the 1996 US National Adolescent and Child Treatment Study (NACTS, cited in Howell et al., 2004) indicate that agency contact was, in order of frequency, mental health (93%), juvenile justice (80%), school-based special education (71%) and child welfare (69%). Walrath, Mandell and Leaf (2001) found that re-contact with any agencies or services after six years was high, with four out of ten adolescents being rearrested and 75% being readmitted to a mental health placement or juvenile correction facility.

Those from abusive and neglecting environments, with exposure to multiple negative influences, comorbid conditions (such as drug dependence and anxiety) and educational deficits (Dembo, Pacheco, Schmeidler, Ramirez-Garmica, Guida & Rahman, 1998) may have a distorted view of 'normality'. For some, 'normal' may mean their lived experience as victims of abuse, deprivation and neglect. This contrasts to 'normality' as a sense of belonging, a sense of self-worth, a sense of trust, or a sense of competence in some activity (Anglin, 2002a). An inevitable difficulty of any young person with high needs is for them to understand or discern a 'normal' existence.

1.2.4 Family characteristics

Families of children and young people with high needs are characterised by low self-esteem, poor impulse control, aggressiveness, anxiety and depression (Vig, Chinitz & Shulman, 2005). Stressors for parents include financial and emotional burdens, demands for physical care, difficulties managing challenging behaviours, and disappointment about children's progress (Cook & Kilmer, 2004; Walrath et al., 2001). Inappropriate expectations of the young person, negative attitudes toward parenting, and inaccurate knowledge of child development contribute to child-rearing difficulties (English, 1998). Adverse environment conditions (disadvantage, unemployment, poor nutrition, lack of social supports, overcrowding, etc.) interact with parent and child factors to further increase stress (Cook & Kilmer, 2004; Walrath et al., 2001).

1.2.5 Differences according to program

Children and young people with high needs are a heterogeneous group and vary within and between services. For example, comparison studies¹ of the characteristics of children and young people living in residential group care, group homes and therapeutic foster care (Baker & Curtis, 2006; Baker & Mitchell, 2004; Curtis et al., 2001) suggest that children and young people in residential care programs tend to be older, to be male, to have more prior living arrangements, to have greater frequencies of mental illness, 'delinquency' and school problems prior to care, and to have been physically abused. In contrast, children and young people in therapeutic foster care programs were more likely to be younger, have parents with substance dependencies, criminal histories and psychiatric disorders, have been sexually abused, and have more contact with siblings and friends during care (Baker & Curtis, 2006; Baker & Mitchell, 2004; Curtis et al., 2001).

1.2.6 Gender differences

Gender differences are also evident within this population. For example, Chamberlain and Reid (1994) found gender differences at entry to therapeutic foster care – males tended to be younger at time of first arrest and had more total arrests than females. Alternatively, girls tended to have a history of out-of-home care, and almost half (49%) had been sexually abused (over four times the rate of boys). Moreover, girls were more likely to have attempted suicide and have run away two or more times before entering the program (Chamberlain & Reid, 1994). Smith (2004) found that girls showed significantly greater criminality in family history, family stress and youth emotional/behaviour risk factors than boys.

In summary, the nature and characteristics of children and young people with high needs are varied and complex. These needs often stem from histories of neglect, abuse and disadvantage. Services and interventions that aim to appropriately meet the needs of this vulnerable group need to be informed by underlying issues and contributing factors that manifest in those behaviour problems which precipitated the young person's entry into care. It is noteworthy, however, that the models of service delivery and interventions described in this review mainly focus on 'behaviour management' of the child or young person who displays these challenging behaviours. Yet severe levels of emotional and behavioural disturbance can result from the accumulation of traumatic early experiences and severe emotional and behavioural problems arising from these experiences (Morton, Clark & Pead, 1999).

1.3 Structure and scope of the review

This literature search and review has identified three key services or programs that are dedicated to addressing the needs of these children and young people in OOHC or at immediate risk of entering OOHC:

- therapeutic (treatment) foster care (TFC)
- residential care (RC)
- multi-systemic therapy (MST).

This review describes each of these services/interventions, examines the evidence for outcomes and effectiveness, and identifies factors that influence outcomes for children and young people. It is important to note that the nature of the research and strength of empirical evidence for each of these interventions differs and, as a result, there is some variation in the structure of each section of this review.

¹ A descriptive prospective study of young people living in residential group care, group homes and TFC was conducted by the Child Welfare League of America: The Odyssey Project. Young people were assessed when they entered the project, at one-year intervals, at exit, and at six-month, one-year and two-year follow-up (Curtis et al., 2001).

Most of the research on the services and programs examined in this review has focused on children and young people aged ten to 17 years. Where appropriate, the evidence for services for younger children is also addressed.

It is beyond the scope of this review to address implementation challenges and relative costs associated with these services and interventions. However, there is a need to do so in the future.

This review is also limited in its capacity to determine the appropriateness of these services and interventions for meeting the needs of Indigenous children and young people. Internationally, no studies were located that examined therapeutic foster care, residential care or multi-systemic therapy for Indigenous populations. Further, this paper does not specifically address children and young people in OOHC who may have physical and intellectual disabilities. While some of the models reviewed may be relevant in addressing the needs of children and young people with disabilities who are in care, there are many other therapeutic interventions and residential services effective with this population that are not examined here.

1.3.1 Out-of-home-care service models

Therapeutic foster care and residential care are examined first in this review as they are designed for children and young people with high needs who require OOHC. Therapeutic foster care has a 'promising and probably efficacious' evidence base (Farmer et al., 2004: 862), and components of this model have informed the development of the specialised or intensive foster care model being introduced in Australia. This is examined in Section 2 of the review.

Section 3 examines residential care. The evidence for the effectiveness of this service is limited because of the lack of empirical research and comparison studies. The review indicates, however, that there are some benefits for some young people, in particular for those who have engaged in residential treatment programs. The innovation and development of therapeutic approaches (such as the Sanctuary model and the Stop-gap model) are indicative of a shift in the need to address complex and multidimensional problems that have beset young people who have entered care.

1.3.2 Other interventions

Section 4 of the review discusses multi-systemic therapy, a short-term intensive intervention designed to maintain children and young people with high needs in their homes and to work actively with family and community members to support the young person.

Multi-systemic therapy is sometimes referred to as a family preservation program and is similar in principle to intensive family preservation services (IFPS). MST focuses on the child or young person (mainly in the context of 'juvenile justice'). In contrast, IFPS is a child protection intervention that focuses primarily on enhancing parents' ability to provide a safe, stable and nurturing home environment (Cameron & Karabanow, 2003).

While MST has mainly been implemented in the US, it may be an appropriate child protection intervention in the Australian child welfare context for both in-home and residential programs.

1.3.3 Service coordination and integration

The literature also highlights the need for effective approaches to service coordination and integration as a key component of any successful service system or intervention providing for the multiple and complex needs of these children and young people and their families. Three approaches or models of coordination and integration are examined in the review:

- case management
- Wraparound
- the US Systems-of-Care model.

Case management is integral to each service and intervention examined in this review and is developing a convincing evidence base (Evans & Armstrong, 2002; Farmer et al., 2004). It is examined as it operates at the 'micro' level of service coordination, actively mobilising and maintaining a diversity of services for the individual child or young person and their family. While there is overlap between case management and Wraparound, case management focuses more specifically on coordinating and facilitating (or implementing) service delivery.

Wraparound is designed to work with families and young people with serious emotional and behavioural disturbance and multiple, complex needs. It aims to address the lack of 'fit' between family needs and actual services/supports provided, the lack of full engagement of families in the process, and the lack of program and system environment to support flexible, individualised care for families (Bruns, 2004). While case management is a central component of Wraparound, the focus of Wraparound is the way in which service delivery is planned (Farmer et al., 2004).

The Systems-of-Care model developed in the US represents an attempt to achieve an integrated approach at the broader level of systems and organisations in order to address the multiple service requirements of children and young people with high needs. This model aims to provide improved organisational and interagency arrangements as a key component of the program logic for delivering services to this target group. Within the Australian context, this model is quite innovative and this review assesses the evidence of its effectiveness.

Section 5 of the review examines each of these three approaches to service coordination and integration.

Children and young people with high needs receiving any of these services and interventions will also be receiving an array of other services, such as individual counselling, group and family therapy, behaviour management and problem-solving training, school-based behavioural interventions and special education, psychiatric consultation and medication management. These more specific therapies and interventions are not addressed in this review but are currently being reviewed in other work by the DoCS' Centre for Parenting and Research (see Schmied & Tully, 2006), and a review of effective interventions for sexual offenders (Nisbet, Rombouts & Smallbone, 2005).

1.4 Methodology of the review

1.4.1 Search strategy

The review is primarily based on a search using recognised academic databases including *SocINDEX with fulltext*, *Psychology and Behavioural Science Collection*, *PsycARTICLES*, *PsycINFO*, *MEDLINE*, *CINAHL*, *PsycBOOKS*, *PsycEXTRA*, *Academic Search Premier*, *Comprehensive*, *Psychology and Behavioral Sciences Collection*, *Academic Search Elite (EBSCO)* and *ProQuest 5000*. The period covered is from 1990 to 2005. In addition, a more general Google and Google Scholar search was conducted to access 'grey literature' from various national and international government and non-government organisations. The cut-off for inclusion of new literature was March 2006.

1.4.2 Studies included in review

The literature describing the design and implementation of services and interventions, and for reporting the outcomes for children and young people with high needs, is extensive and has predominantly been conducted within the US. To determine studies for inclusion, the search strategy and review process was designed to locate any meta-analyses² (e.g. Reddy & Pfeiffer, 1997), systematic reviews³ (e.g. Hahn et al., 2005; Littell, 2005) and narrative reviews⁴ (e.g. Curtis et al., 2001; Hair, 2005) of these services and interventions. The review also draws on single studies, particularly randomised controlled trials (RCTs) and other comparative studies, where available and appropriate.

While RCTs are considered to be the 'gold standard' in measuring efficacy and effectiveness⁵ of interventions and have been included in this review, the conduct of RCTs in 'real life' settings may not always be valid, possible or reliable (Chaffin & Friedrich, 2004). Furthermore, interventions that have been validated in a controlled environment may not translate to, or perform well in, community settings (Franco, Soler & McBride, 2005; Kazdin, 2004; Schoenwald & Hoagwood, 2001). For this reason, well-designed quasi-experimental⁶ (non-randomised) comparisons such as pre-post test (with a sample size of at least 30 in each group), longitudinal cohort and cross-sectional studies (with sample sizes > 100) are included.

Qualitative studies (e.g. Anglin, 2002a; Emond, 2003; Community Affairs Reference Committee, 2004) related to children and young people with high needs have also been included because they provide insights attained from service users and providers not always generated from, nor measured by, quantitative research.

² Meta-analysis is a statistical method of combining and summarising the results of two or more studies of similar design (usually RCTs) in a systematic review that meets minimum quality criteria (Macdonald, 2003).

³ A systematic review is a review of a clearly formulated question that uses systematic and explicit methods to identify, select and critically appraise relevant research, and to collect and analyse data from the studies included in the review. Statistical methods (meta-analysis) may or may not be used to analyse and summarise the results of the included studies (Macdonald, 2003).

⁴ A narrative review is a literature review in which reviewers have sought to collate relevant studies and to draw conclusions from them but do not make explicit their methods or decision-making rules (Macdonald, 2003).

⁵ It is important to highlight here the difference between efficacy and effectiveness studies. Efficacy is concerned with the question: Can a treatment work under ideal circumstances? Conversely, effectiveness addresses the question: Does it work in the real world? Studies that focus on efficacy do everything possible to maximise the chances of showing an effect. The rationale is that, if the treatment cannot be shown to work under the best conditions, there is not much chance that it will be effective in actual practice. On the other hand, effectiveness studies emphasise the applicability of the treatment and therefore try harder to duplicate the situations that clinicians will encounter in their practices (Streiner, 2002).

⁶ Quasi-experimental designs attempt to approximate experimental designs as closely as possible and are advantageous in situations where random assignment of subjects to different treatment groups is not feasible (Hedrick, Bickman & Rog, 1993).

1.5 Methodological issues in assessing effectiveness

There is a number of common methodological problems and design limitations which need to be taken into account in assessing service effectiveness and outcomes for children and young people with high needs, the most striking of which is the heterogenous nature and characteristics of those receiving care. Such a critique must also recognise the complexity of undertaking research within this field and in 'real life' settings. For example, there are important ethical considerations (such as withholding services) in the course of conducting research using experimental designs with control and comparison groups within this vulnerable population (Blackman et al., 1991).

Research design limitations have been identified across all services and interventions for children and young people with high needs (Barth, 2002; Bates et al., 1997; Berrick et al., 1997; Curtis et al., 2001; Hair, 2005; James & Meezan, 2002; Reddy & Pfeiffer, 1997). These include:

- limited use of control or comparison groups
- sampling problems such as small non-randomised samples or control conditions (small sample sizes have been the norm in OOHC research)
- variability of participants (in relation to age, sex, home environments, life events, abuse history and type of abuse and placement history, etc.) making comparisons difficult
- small number of outcomes measured; for example, behavioural and placement outcomes with little attention to socially relevant outcomes such as employment and school attendance
- lack of valid and reliable outcome measures
- timing of data collection influencing treatment effects, participant attrition, as well as lack of trained data collectors
- inadequate description and standardisation of intervention protocols, limiting the generalisability and replication of research findings
- little attention to the importance of intervening variables (e.g. family and community support) which may affect treatment efficacy
- scarcity of rigorous statistical analysis of data (Barth, 2002; Bates et al., 1997; Berrick et al., 1997; Curtis et al., 2001; Hair, 2005; James & Meezan, 2002; Meadowcroft & Thomlison, 1994; Reddy & Pfeiffer, 1997).

In addition, there are often diverse definitions, interpretations and implementation of program elements such as 'family focus', 'cultural competence', 'individualised services' and 'system integration'. There may be variability in program characteristics and scope, a lack of program/treatment fidelity, variation in training of service providers and the level of personal efficacy and confidence of the clinician, variation in levels and quality of family contact time, and variation in levels of impairment associated with interaction with other troubled young people, particularly in residential settings (Burns et al., 1999; McCurdy & McIntyre, 2004). This variation in components of programs and implementation of services and interventions makes effectiveness evaluation difficult, particularly when conducting comparison studies.

2. Therapeutic foster care

Summary of the evidence of effectiveness of therapeutic foster care

What is therapeutic foster care (TFC)?

Therapeutic foster care is an intensive, family-based therapeutic approach based on social learning theory and an eco-systemic approach. Specially trained foster carers provide unrestricted support, care and a positive relationship (alliance) with a mentoring adult (typically > 12 months). The program involves close supervision of the child or young person, setting rules and boundaries and limiting exposure and access to delinquent peers. Other interventions include counselling, independent living skills and problem-solving training, educational services and support groups.

Who is it for?

Children and young people with serious emotional and behavioural disorders, either leaving more restrictive settings (step-down placement) or entering more intensive placement for care that cannot be met in regular foster care (step-up placement).

What are the outcomes?

Improved behavioural, social and emotional functioning, transitioning to less restrictive placements, and placement stability.

What is the evidence for effectiveness?

Demonstrated to be effective in reducing violent crime by chronic juvenile offenders, and as 'promising or probably efficacious' in reducing behaviour problems and improvement in social skills and psychological adjustment in children and young people with high needs.

What influences effectiveness?

- Relative 'fit' between TFC parent and child or young person, and the development of a positive mentoring influence
- Characteristics of the child or young person (age, gender, etc.) and placement history (i.e. number of previous placements predicts program outcome)
- Characteristics of the program, such as length, intensity, service availability and utilisation.

2.1 Background and description of therapeutic foster care

Therapeutic (or treatment) foster care is an intensive family-based, therapeutic approach for children and young people with serious emotional and behavioural disorders (Fisher & Chamberlain, 2000; James & Meezan, 2002). With the move away from residential care over the past two decades, TFC has gained popularity as a less costly alternative to residential group care. It is considered to function as either a step-down placement for children and young people leaving more restrictive settings (juvenile justice centres or psychiatric hospitals), or as a more intensive step-up placement for those with high and complex needs that cannot be met effectively in regular foster care (Reddy & Pfeiffer, 1997; Walter, Swaim & Petr, 2003). Originally designed as a short transitional type of placement, TFC today is typically longer term, for over 12 months.

Therapeutic foster care involves the use of specially trained foster carers to provide non-restrictive care and support to a child or young person. TFC carers are usually part of a 'treatment team' that may consist of a number of program staff under the direction of a case manager or clinical supervisor. TFC carers are trained, supported and supervised as integral members of the treatment team. Other team members may provide a range of treatment services tailored to meet the specific needs of the child and their family (Chamberlain, 2000).

Therapeutic foster care is known by a number of different names, including multidimensional treatment foster care (MTFC; Chamberlain & Reid, 1998), foster family-based treatment (Hawkins, Meadowcroft, Trout & Luster, 1985), treatment foster care (Chamberlain & Reid, 1994), professional foster care (Pecora, Whittaker, Maluccio & Barth, 2000) and foster family care (Bryant & Snodgrass, 1992). For this review, the term 'therapeutic foster care' is used.

2.1.1 Model program – the Oregon Social Learning Centre strategy

The Oregon Social Learning Centre (OSLC) provides the best-researched model of TFC to date (though it uses the term MTFC not TFC). The first MTFC program was established in 1983 and targeted serious and chronic juvenile offenders. A key focus of the program was to minimise negative interactions with other struggling peers. The program has since been adapted to meet the needs of children or young people referred from mental health and child welfare.

The OSLC model is based on the social learning parent-training model, which requires foster parents to undertake daily activities specified in an individualised plan. Interventions include a behaviour management and modification approach using a point and level system. Children or young people and parents report on and document the use of positive reinforcement and awareness of consequences for actions.

2.1.2 Key features of TFC

There are a number of key features of TFC programs (Chamberlain, 2003; Farmer, Burns, Dubs & Thompson, 2002; Fisher & Chamberlain, 2000; Henggeler & Sheidow, 2003), as follows:

- There is a coordinated team (carry out the therapeutic plan for each young person), comprising trained foster parents, a full-time case manager, individual and family therapists, and other resource staff.
- Only one or two children or young people are placed with each foster family.
- Foster parents are carefully recruited and receive 20 to 30 hours of training on principles of social learning, reinforcement techniques, problem-solving, clear and consistent limit-setting, and specific issues such as attachment, separation, sexual abuse and how to engage and work with the birth family.

- Foster parents are seen as part of the treatment team; they maintain close communication, typically daily, with the case manager and help identify target behaviours and formulate plans.
- Foster parents receive ongoing support and supervision and participate in weekly supervision/support meetings with their case manager and other foster parents; Foster parents have 24-hour access to the case manager.
- Each child or young person is assigned an individual therapist who meets with them weekly and is available to the child on a 24-hour basis.
- Case managers carry smaller caseloads (these range from five to 15 cases – Foster Family-based Treatment Association standards recommend eight cases) and program staff members pay close (daily) attention to the individual child or young person's progress/problems in the foster home and at school.
- Foster parents and other treatment staff are in constant contact with, and involved in active coordination with, the school.
- Parent stipends are substantially higher than those of traditional foster care.
- Birth parents are involved in the treatment plan and receive family therapy, support and education to increase skills at supervision, limit-setting and reinforcement.
- Aftercare support and services using a Wraparound approach for children who are reunified; these include 24-hour crisis intervention, group and/or individual consultation and support, consultations and interventions with schools, individual and family therapy, and practical assistance.

Specific interventions offered within TFC programs include training in behavioural management and problem-solving for the children and young people (Chamberlain, 1990, 2003), school-based behavioural interventions and special education, counselling and independent living skills (Bryant & Snodgrass, 1992). Others include psychiatric consultation and medication management as required (Chamberlain, 2003), as well as individual, family and group services for children or young people and birth parents (Bryant & Snodgrass, 1992; Chamberlain, 1990; Hawkins et al., 1985), and behavioural parent training and support for TFC foster parents (Chamberlain, 2003). Intensive case management is another important component of the programs (Chamberlain & Reid, 1991).

The OSLC has also developed multi-dimensional treatment foster care - preschool (MTFC-P) as an early intervention strategy for children aged three to six years who are placed in foster care (Fisher, Burraston & Pears, 2005). The program follows a developmental framework where the challenges experienced by children are viewed from the perspective of delayed maturation rather than just a behavioural and emotional problem. Emphasis is on the child experiencing a consistent, caring and responsive environment. To date, only the findings of a pilot study have been published on this study (Fisher et al., 2005). However, preliminary findings of a randomised controlled trial (Barth, 2006) indicate that secure behaviours in MTFC-P children increased compared to those in regular foster care, mean levels of secure behaviour reduced for the regular foster care group over time, and there was a significant reduction in placement moves for children in MTFC-P.

2.2 Outcomes for children and young people with high needs using TFC

2.2.1 Overview

Therapeutic foster care is considered to be a 'promising and probably efficacious' intervention for children and young people with high needs (Farmer et al., 2004: 862). A recent systematic review by Hahn et al., (2005) found TFC to be effective in reducing violent crime among juvenile offenders. However, where TFC is implemented at a community level rather than in a research setting, the findings are mixed.

As noted in the introduction to this review, determining the comparative effectiveness of TFC programs is difficult, as these often differ in approach, intensity of service, training and support offered to TFC parents, and assistance offered to birth families (James & Meezan, 2002; Reddy & Pfeiffer, 1997).

The evidence for TFC primarily comes from a meta-analysis conducted by Reddy and Pfeiffer (1997), a systematic review by Hahn et al., (2005), and a number of single efficacy studies using randomised controlled designs, most of which have been conducted by the developers at the OSLC (Leve & Chamberlain, 2005; Chamberlain & Reid, 1991, 1998). In addition, there are a number of narrative reviews (e.g. Bates et al., 1997; Curtis et al., 2001; James & Meezan, 2002; Walter et al., 2003) and descriptive cross-sectional and longitudinal studies (e.g. Baker & Mitchell, 2004; Cross, Leavey, Mosley, White & Andreas, 2004; Farmer, Wagner, Burns & Richards, 2003; Hussey & Guo, 2005) that identify factors that influence outcomes for children and young people.

2.2.2 Social, emotional and behavioural outcomes for children and young people

Overall, studies demonstrate that TFC results in improved outcomes in social, emotional and behavioural functioning of children and young people. The meta-analysis by Reddy and Pfeiffer (1997) reported large positive effects for outcomes classified as social skills and medium-level effects for psychological adjustment (e.g. self-esteem, affect and quality of sleep), and reduction in behaviour problems on exiting TFC.

The key efficacy studies conducted by Chamberlain and colleagues indicate that young people in TFC make significant improvements in adjustment, self-esteem and sense of identity (Chamberlain, 1990; Chamberlain & Reid, 1991, 1998; Chamberlain & Weinrott, 1990; Clark Hewitt, Prange, Lee, & Boyd, 1994; Leve & Chamberlain, 2005). Baker and Mitchell (2004) also found that most young people in TFC programs were enrolled in school and most were not suspended or expelled after exiting. Boys in TFC also spent fewer days incarcerated than boys in group care (GC) (53 TFC and 129 GC) (Chamberlain & Reid, 1998).

Research suggests that such gains are sustained for some time after leaving TFC (Chamberlain & Reid, 1991). For example, Chamberlain and Reid (1998) found that boys in TFC reported, two years after exiting the program, using less marijuana and hard drugs than those in group care, and significantly more boys reported working in legal jobs, having positive relationships with their parents, and refraining from unprotected sex. Data on official arrest rates at one year after exiting showed boys in TFC had significantly fewer arrests ($m = 2.6$ TFC, $m = 5.4$ GC). Post-exit self-reports of delinquent activities also showed that boys in TFC reported engaging in significantly fewer delinquent activities, including serious and person crimes ($m = 12.8$ TFC, $m = 12.8$ GC). Leve and Chamberlain (2005) reported similar findings for girls in TFC.

To date, the most robust outcome for TFC is the reduction in violent crime (Hahn et al., 2005). Improvement in social, emotional and behavioural outcomes, however, is not consistently seen in studies conducted in other communities and counties in the US. Hussey and Guo (2005) found children generally demonstrated fewer internalising behaviours and psychiatric symptoms but

remained the same on measures of externalising behaviours and total problem score following TFC. Further, Cross et al., (2004) found in a sample of 384 children in TFC that 48% demonstrated improvement across all domains, and 35% worsened. Fifty per cent or more of young people improved in 11 out of 18 categories (such as self-care, quality of relationships, school participation, aggressive incidents, psychiatric symptoms and behaviours resulting from abuse). Fewer than half improved in the more difficult areas such as substance misuse and risky sexual behaviours experienced by a smaller percentage of the sample.

2.2.3 Placement stability

Stability in TFC placements and the restrictiveness of exit placement are used in most studies as outcome measures of TFC. Early studies suggested that between 38% and 70% of TFC placements are disrupted (Berrick, Courtney & Barth, 1993; Staff & Fein, 1995), though in the absence of comparison groups it is difficult to interpret these findings. Reddy and Pfeiffer (1997), however, concluded in their meta-analysis that TFC programs had a large positive effect on placement stability.

More recently, Smith, Stormshak, Chamberlain and Whaley (2001) found that around one-quarter of TFC placements are disrupted in the first 12 months, and most disruptions (70%) occurred during the first six months. Similarly, Farmer et al., (2003) found that a little over one-third of placements disrupted.

One common form of placement disruption is runaway behaviour. Participants in the OSLC TFC programs were significantly less likely to run away from placements compared to participants of group care, and were significantly more likely to finish the program (73% TFC, 36% GC) (Chamberlain & Reid, 1998; Chamberlain & Weinrott, 1990). Fasulo, Cross and Mosley (2002) studied 147 young people, and found that 44% ran away at least once and 22% ran away permanently, making running away the most frequent outcome in this sample. Two-thirds of those who ran away began this behaviour within the first six months of their placement. However, the runaway rates in this study, in the absence of a comparison group, are inconclusive regarding the effectiveness of TFC.

Fasulo et al., (2002) noted that 32% of young people who ran away temporarily eventually ran away permanently. Thus, running away at least once is significantly related to permanent disappearance from the TFC home. Findings indicated that young people most often ran back to their biological families (44%), to a peer friend (39%) or to a friend of a family member in the home community (17%). The authors view the tendency to run home as reflecting a deep attachment to parents rather than as rebellion (Fasulo et al., 2002).

2.2.4 Exit placements/status

Exit status (i.e. the level of restrictiveness of placement after exiting TFC and at follow-up) was investigated in a number of studies. Overall, TFC has demonstrated some success in transitioning children from more restrictive (institutional) placements to home, general foster care or independent living (Baker & Mitchell, 2004; Cross et al., 2004; Farmer et al., 2003). The meta-analysis by Reddy and Pfeiffer (1997) indicated that TFC programs had a medium effect on exit status.

Examining reports from 12 TFC programs across the US, Kutash and Rivera (1996) found that between 60% and 90% of young people in TFC programs exit to less restrictive settings. Three programs also reported follow-up data indicating that approximately 70% of young people in TFC remained in less restrictive settings for a substantial amount of time after placement. More recently, Cross et al., (2004) reported that 58% of their sample were permanently placed or moved to a less restrictive setting on completion of the program.

Farmer et al., (2003) suggest that the gains made from TFC may be lost after leaving the program. Their analyses found that, by the end of the 12-month post-placement period, rates of group home placement (among young people who had left TFC) were at levels similar to those prior to TFC. However, use of the most restrictive placements (residential treatment centres, hospitals, jail) remained low throughout the 12-month follow-up.

2.3 Factors influencing outcomes of TFC

James and Meezan (2002) stress that there is still insufficient knowledge about TFC to draw any definitive conclusions on what works for whom and in what context. The reason for this partly relates to the diversity and complexity of TFC programs. TFC is a 'packaged' program with a number of interventions, from counselling, behaviour management and problem-solving to educational services and support groups, and this makes it difficult to determine which specific interventions are effective. To date, no specific 'theory of change' has been demonstrated to affect service success (James & Meezan, 2002).

The following discussion examines factors that appear to influence the outcomes of TFC, including characteristics of the children and characteristics of the program (such as program staff and foster parent characteristics).

2.3.1 Characteristics of the child or young person

Age

Studies indicate that older children tend to have less successful outcomes with higher rates of placement failure than younger children (Farmer et al., 2003; James & Meezan, 2002), and lower rates of overall improvement (Cross et al., 2004). Cross et al., (2004) found that children younger than six showed significantly more improvement than any other age group. Smith et al., (2001) found that disruptions in the first six months were significantly more likely for older children and that this was most likely for older girls, while Fasulo et al., (2002) found that 14- to 16-year-olds made up the majority of runaways. Hudson, Nutter & Galaway (1994) found that only 40% of children over the age of 12 went home to a less restrictive placement from TFC.

However, research by Chamberlain and Reid (1998) indicates that TFC programs can be effective for older adolescents with serious behavioural problems. Findings that younger children do better is not surprising, as they have experienced fewer of the cumulative effects of adverse environments (Cross et al., 2004).

Gender

Evidence suggests that girls may fare worse in TFC programs than boys (Chamberlain & Reid, 1994). While girls complete programs at the same rate as their male counterparts, during treatment girls are more likely to engage in runaway behaviour (Cross et al., 2004; Fasulo et al., 2002; Smith et al., 2001). Smith et al., (2001) noted that boys' behaviours improved, or at least did not deteriorate, by the time they had spent six months in TFC; girls, however, after comparatively fewer problems in the first six months after intake, showed increased behaviour problems thereafter. Data suggested that this risk was further elevated for girls with a history of being sexually abused, although this is not supported in work by Fasulo et al., (2002).

Adolescent girls have by far the highest probability of disruption of placement (55%), followed by older boys (12.7% probability) (Smith et al., 2001). Smith et al., suggest that girls may need more time to build trusting relationships than boys, and only then may begin showing problem behaviours. They speculate that girls exhibit different forms of aggression (namely 'relational' aggression) that become more subtle as they age (Chamberlain, 1996). Fasulo et al., (2002) also suggest that, because girls are more likely to run away (back home), they may feel a greater sense of attachment to their families of origin or may go home to care for their parents or siblings.

Chamberlain and Reid (1994) found that, while the overall number of arrests after treatment dropped for boys and girls, sexually abused girls continued to show higher numbers of total offences. Smith (2004) notes that girls who completed treatment were at the lowest risk for reoffending.

In contrast, other studies did not find that gender influenced outcomes (Cross et al., 2004; Farmer et al., 2003). In these studies males and females differed little in the degree of improvement across all domains.

Ethnicity

Participants in the efficacy studies conducted by Chamberlain and colleagues are predominantly Caucasian. However, this does not reflect the population of adolescents in residential placements, which is over-represented by African Americans. Studies by Hussey and Guo (2005) and Cross et al., (2004) indicate that over 50 percent of children in TFC and residential placements are African-American. At the same time, little is known about how ethnicity impacts on outcomes.

Placement history

Of all variables examined by Hussey and Guo (2005), previous out-of-home care placements was the most significant predictor of impairment and change in mental health status over time. Each additional OOHC placement was predictive of increases in externalising, internalising and critical pathology domains.

2.3.2 Characteristics of the program

There are several key components of TFC programs identified in the literature that affect outcomes (Chamberlain & Moore, 1998; Smith, 2004). These are:

- close supervision of child/young person
- establishing and maintaining fair and consistent limits
- predictable consequences for rule-breaking
- presence and quality of a relationship (alliance) with a mentoring adult
- limited exposure and access to delinquent peers.

In addition, program length and intensity has also been shown to affect outcomes.

Close supervision leading to limited exposure to delinquent peers

Based on data from the RCTs conducted in Oregon, Chamberlain and Moore (1998) and Leve and Chamberlain (2005) found that children and young people in TFC spent more time per day with direct adult supervision and less unsupervised free time per week as compared with those in group care. In contrast, young people in group care spent more time with peers. Importantly, the adults working with the young people in group care and TFC differed in terms of what they thought had the most influence on the boys' success; that is, the TFC group believed that adults were able to more positively influence young people than peers were (Chamberlain & Reid, 1998).

Leve and Chamberlain (2005) concluded that TFC is significantly better than group care in reducing youth delinquent peer association in the 12-month period following treatment. The researchers also concluded that peer association during the intervention in fact mediates the effect of the intervention and association with delinquent peers 12 months after the program.

Limit-setting and consequences for rule-breaking

The development of TFC has been heavily informed by social learning theory. Consequently, the establishment and maintenance of fair and consistent limits and predictable consequences for rule-breaking are considered to be important components of the program (Chamberlain & Moore, 1998; Smith, 2004). This approach aims to reinforce positive behaviours and provide clear disincentives for inappropriate behaviours.

Relationship or 'alliance' between foster carer and child

Dore and Eisner (1993) argue that, in order to enhance a 'goodness of fit' between TFC families and a child, the child's ability to tolerate intimacy, level of impulsivity, fear of rejection, aggression and self-esteem should be assessed in the matching process. Jivanjee (1999) also notes that foster carer attitudes towards family involvement appear to be influenced more by their life experience than by their training.

The relative fit between TFC parent and child appears to be more predictive of outcomes than characteristics of the child or TFC provider alone (Smith et al., 2001). Chamberlain and colleagues report that foster parent-youth interactions are significantly related to program completion. Higher levels of reinforcement used by TFC foster carers and more positive observed behaviour were significantly predictive of completing treatment for both boys and girls (Chamberlain, 2003; Leve & Chamberlain, 2005).

However, research on the relationship or alliance between TFC parents and children and young people is limited. A study by Wells, Farmer, Richards and Burns (2004) found wide variation in how TFC mothers experience their role and relationships with children and young people. Given that the TFC parent is the 'therapeutic agent', understanding how parents and these children and young people form a relationship or alliance may provide the context for understanding the outcomes of TFC and the role that relationships and interactions play in this process.

Rauktis, Doucett, Vides de Andrade, McDonough and Reinhart (2005) found that most young people and TFC parents report positive alliances, but that adults were more positive about the relationship. In addition, there appeared to be a 'honeymoon period' early on in the relationship, followed by a period of lower alliance. The authors also examined the patterns of alliance using growth curves, and found that the number of previous placements, severity of problem behaviours and youth resistance appeared to be associated with different patterns of youth alliance. Young people with fewer previous placements (three or less) have more stable growth in alliance, while those with more placements (four or more) have lower alliance scores. A history of being moved from home to home or in and out of different residential treatment facilities appears to make it harder for young people to form a relationship with a treatment parent. Young people with oppositional defiant disorder were found to have more unstable relationships, decreasing in the first ten months of being in the home and then improving. Young people reporting lower resistance were also the ones reporting better relationships, and those reporting higher resistance were the ones having more difficulty building good relationships.

Two TFC parent characteristics seem to be associated with alliance. When biological children are present in the home there is a higher level of youth alliance. Also, when young people are placed in homes of parents of a different race, the rating patterns of alliance show more variability (higher variance) and a tendency to deteriorate over time. Cultural and racial perceptions and adjusting to living with treatment parents of a different culture may influence youth alliance.

Program length, intensity and service utilisation

Program length of TFC has been shown to vary. Some programs are short term (three to six months) and others longer term (up to 18 months) (Bryant & Snodgrass, 1992), or as long as the child needs placement, with some children staying in one placement for as long as five years (Staff & Fein, 1995). Hussey and Guo (2005) found that, on average, children stayed in TFC for 465 days.

The study by Farmer et al., (2003) does not support the view of TFC as a short-term transitional placement. The majority of young people (64%) in their study remained in their TFC placement throughout the 12-month study period. Despite the fact that nearly half the young people who left during the year returned home, moving out of TFC during this period appeared to be associated with problems or 'failure', such as having fewer strengths and higher levels of externalising behaviour, rather than 'success'. Similarly the study by Cross et al., (2004) found that the global improvement score tended to be higher the longer the child or young person was in TFC. Scores peaked at around two years and five months, after which scores tended to decrease.

However, it is important to note that concerns have been raised about the possibility of 'drift' in TFC. Pecora et al., (2000) suggest that there are indications that children in professional foster care placements experience delayed permanency compared with children in regular foster care.

There has been little study of the contribution of individual and group therapeutic services to children and young people in TFC. In the study by Fasulo, Cross, Mosley & Leavey (2002), a higher amount of psychotherapy was found to be related to a reduction in likelihood of runaway behaviour. The intensity of programs also varies. Some children will receive intensive therapy from skilled service providers, while other programs rely on the therapeutic milieu of the foster home. No studies have compared these approaches to date (James & Meezan, 2002). However, it should be noted that there will be individual differences among the children in a program regarding the type and intensity of the therapeutic service required.

2.4 Conclusions

Earlier it was highlighted that most reviews of TFC have found the evidence base is mixed due to methodological limitations and a scarcity of information about providers and interventions (Bates et al., 1997; Curtis et al., 2001; Hudson et al., 1994; James & Meezan, 2002; Reddy & Pfeiffer, 1997). Most of the research that examines the efficacy of TFC using rigorous research designs has been conducted by one group at the OSLC and has focused on juvenile justice populations. Hahn et al., (2005) thus caution about the immediate applicability to other populations outside the juvenile justice system and other communities.

The efficacy studies conducted by Chamberlain and colleagues at the OSLC indicate that certain key components of TFC programs affect outcomes (Chamberlain & Moore, 1998; Smith, 2004). However, James and Meezan (2002) emphasise that, outside the programs at the OSLC, little is known about the children, young people and families most likely to benefit from TFC, and even less information is available about the program and service characteristics that would promote success.

Strengths and limitations of TFC in the context of child welfare

Strengths	<ul style="list-style-type: none"> The unique relationship and relative 'fit' between foster carer and young person, and the clear program objectives implemented by the carer.
Limitations	<ul style="list-style-type: none"> Tested in juvenile justice population in the US; therefore, program elements may not be easily transferable to Australian child welfare context. Does not appear to be suitable for all children; for example, those over 14 years old and girls do not do as well.

3. Residential care

Summary of the evidence of effectiveness of residential care

What is residential care?

Residential care is a term used to describe a number of service modalities, including institutional care, group care, congregate care and residential treatment centres (the most restrictive setting). Services generally include counselling, education, recreation, health, nutrition, daily living skills, and advocacy services. Innovative approaches to therapeutic residential care incorporate trauma-based and attachment-focused therapies.

Who is it for?

Young people assessed as 'difficult to treat' or 'troubled and troubling' who have often had multiple failed placements in the care system.

What are the outcomes?

Reduction in internalising symptoms such as depression and anxiety, reduction in antisocial behaviour, and improvement in pro-social behaviour.

What is the evidence for effectiveness?

Research evidence is mixed, ranging from 'promising service' and 'viable option', to 'last choice' or 'last resort' for this group of young people. The trend towards a more therapeutic style of residential care holds 'greater promise' for 'difficult to serve' young people and their families.

What influences effectiveness?

- Characteristics of the child or young person, their family, service characteristics, and family and community involvement.
- Level of support perceived by the child or young person to be available from significant others while in care and after-care.

3.1 Background and description of residential care

Early research on institutional care has generally reported poor outcomes for children and young people (Hodges & Tizard, 1989; Provence & Lipton, 1962; Spitz, 1965; Tizard & Hodges, 1978; Wolkind, 1974; Youngleson, 1973). A recent Australian inquiry has revealed the long-term effects for children of not only the 'lived experience' of institutional care but the suppression of its negative effects (Community Affairs Reference Committee, 2004). These children, while not explicitly defined as those with high needs, were generally found to have suffered the adverse effects of long-term institutional care on their emotional, social and cognitive development (Bowlby, 1951; Goldfarb, 1945; Provence & Lipton, 1962; Spitz, 1965).

As a result of reported negative outcomes for children raised in institutional care, use of residential facilities generally has declined throughout the western world, with an increase in alternative forms of care. This declining trend in the use of residential care has also been reflected in Australia. In 1983, approximately 40% of children in out-of-home care lived in some form of residential care. In 2004, less than 10% of the total care population lived this way, with family foster care and kinship care being the options of choice for over 90% of placements (Delfabbro, Osborn & Barber, 2005a).

The primary purpose of residential care is to address the unique needs of young people who require additional services than those available to them within a family setting. This involves an understanding of the developmental needs of children, including nurturing, education and special needs such as the trauma of abuse (Bullock, Little & Milham, 1993). The basic physical, psychological, developmental and emotional needs of the young person in residential settings need to be met at a critical period in their life (Bullock, 2000). It also involves identifying and reducing key risk factors, such as antisocial peers, substance abuse, poor family functioning and school failure. The greater the number of risk factors addressed by an intervention, the greater its impact (Buist & Whyte, 2004).

However, there are debates as to the most appropriate form of residential care to meet the range of needs for this small but vulnerable group.

3.1.1 Debates on the appropriateness and effectiveness of residential care

Competing views regarding the appropriateness and effectiveness of residential care (RC) for young people range from 'preferred choice' to 'last resort'. These competing views are also reflected in the debate between those aligned with the Malmo Declaration (RC as a positive option for young people at appropriate times in their development) and those aligned with the Stockholm Declaration (RC as having negative consequences for residents and for society at large) (Bath, 2001; Anglin & Knorth, 2004).

More specifically, studies reporting positive findings of residential care have described the service in the following terms:

- A viable or realistic option for young people who exhibit major behavioural and emotional problems, or who are unable to achieve stability in traditional forms of family-based foster care (Bromfield, Higgins, Osborn, Panozzo & Richardson, 2005)
- A preferred and positive choice for young people at appropriate times in their development (Tizard & Rees, 1975; Zeanah, Smyke, Koga & Carlson, 2005; Hillan, 2005)
- An option to complement existing services rather than as a residual service (Kendrick, 1995)
- A 'promising' residential service for young people (Frensch & Cameron, 2002; Weiner & Kupermintz, 2001).

More negatively, residential care has been considered a 'last resort' for the most 'difficult to serve' young people, for those who have experienced multiple prior placement failures, for those coming directly from high-end placements like detention or psychiatric settings, or for those who have the most serious forms of mental illness and self-destructive behaviour (Barth, Webster & Lee, 2002; Budde et al., 2004).

There is also the view that institutionalising children competes with the ideal of a family setting – a view that seems to be based on society's prevailing values rather than on proven research (Budde et al., 2004).

These competing views aside, children and young people may be 'placed inappropriately' in residential care because of a lack of alternative community options (Kendrick, 1995).

3.1.2 Different forms of residential care

Residential care is on the continuum between an 'early placement option' to the 'most restrictive' facility (Budde et al., 2004). There is a number of different ways (or modalities) in which residential care is provided. These include the following:

- In its broadest sense, residential care can mean placement of a young person with high needs within a residential building, where the purpose is to provide care for them by paid rostered staff (living off-site) working in shifts.
- Larger facilities can typically run as family group homes, having a limited number of children who have 24-hour care by resident or substitute parents. Group homes can offer an intense, supervised, staffed, structured, consistently responsive environment for promoting the personal growth and development of young people who require intensive care and support (Anglin, 2002a).
- Another modality is 'congregate care', a form of care that incorporates a range of options, including group homes and residential treatment centres (Freundlich & Avery, 2005).
- Residential treatment centres are considered a more restrictive group setting, and are designed to integrate remedial education and mental health treatment based on an individualised service plan (Whittaker & Maluccio, 1988). They are generally professionally staffed to provide residential treatment of mental disorders. These settings often involve a focus on behaviour management, psycho-educational and group therapies, and medication management (Baker & Curtis, 2006).

3.1.3 The move towards therapeutic residential care

Within residential settings, and with links to community programs, young people are generally offered a variety of services, such as therapy, counselling, education, recreation, health, nutrition, daily living skills and pre-independent living skills (Child Welfare League of America, 2005). The trend towards a more therapeutic style of residential care has been commented on by Delfabbro and Osborn (2005), who see a 'greater promise' in involving a range of therapeutic interventions (rather than US-style services designed for correctional populations). This view echoes Wagner's (1988) earlier research on the continuing need for residential care as a therapeutic provision for socially and emotionally damaged children and young people.

The aim of a therapeutic environment is to provide structure and routine for children and young people in which to address trauma and negative relational issues while at the same time forging healthier relationships with others. Such therapeutic approaches are designed to interrupt the young person's downward spiral imposed by increasingly disruptive behaviour and to reduce problematic behaviours by reinforcing positive behaviours, while simultaneously preparing the environment for the young person's timely reintegration (McCurdy & McIntyre, 2004).

3.2 Evidence of effectiveness of residential care for children and young people with high needs

As residential care has not been tested in efficacy and effectiveness studies, evidence for its effectiveness as a service for children and young people with high needs is difficult to assess. Other difficulties in assessing the effectiveness of residential care are associated with wide variations in service description, modalities and principles, study design (such as inconsistent outcome variables and non-standardised measuring instruments) and definitions of key terms related to, for instance, 'restrictive' and 'quality' care.

Apart from the earlier studies previously noted, some more recent studies have yielded negative outcomes for children and young people, such as:

- increased symptoms of anxiety and depression as well as overall clinical deterioration of those assigned to residential settings compared to young people living in community-based alternatives (Burns et al., 1999)
- higher rates of conduct disorder, anxiety and attention-deficit disorder for those compared to a special education group (Silver et al., 1992)
- low levels of self-esteem, emotional comfort, psychosocial stability and work performance for those compared with a reference group at high school (Altshuler & Poertner, 2002)
- longer lengths of stay, less likelihood of returning home after leaving care, and less long-term stability for those compared with others residing in 'family-centred' care (Landsman, Groza, Tyler & Malone, 2001).

A fundamental, ongoing issue of long-term placement in institutional care has been found to be a lack of trust and security and a lack of interpersonal and life skills, especially social and parenting skills, which are acquired through a normal family upbringing (Community Affairs Reference Committee, 2004).

Evidence of more positive outcomes for young people in residential settings include significant reduction in internalising symptoms such as depression and anxiety, high-risk behaviours such as suicidality, and behavioural and emotional disturbance (Connor, Miller, Cunningham & Melloni, 2002; Lyons, Terry, Martinovich, Peterson & Bouska, 2001), as well as 'improved functioning' at one and three years after leaving care compared with severe impairment measured at admission (Blackman et al., 1991).

A preliminary study examining short-term effects of implementation of a trauma-based therapy has shown that young people in residential care did begin to develop more empathy for one another and for staff. Apart from benefits to residents, there was also shown to be a growing awareness by staff of trauma theories, which gave them more understanding of the often-confusing 'youth' behaviours they dealt with on a daily basis (Rivard, Bloom, McCorkle & Abramovitz, 2005).

Despite the small number of studies and methodological weaknesses, the results suggest that young people with severe emotional and behaviour disorders can benefit from services provided by residential settings that are multi-modal, holistic, ecological and therapeutic (Hair, 2005; Hillan, 2005).

⁷ Sanctuary model, integrated into residential treatment program using a comparison group (Rivard et al., 2005).

3.3 Factors influencing outcomes

Factors that influence outcomes for young people in residential care are associated with the characteristics of the young person, the young person's family, service characteristics and family and community involvement (Barth, 2002; Curry, 1991; Curtis et al., 2001; Franz, 2004; Guterman, Hodges, Blythe & Bronson, 1989; Hoagwood & Cunningham, 1992; Jackson-Walker, Wall & Minnich, 2003; Larzelere et al., 2001; Little et al., 2005; Pecora, Fraser & Haapala, 1992; Pecora et al., 2000; Wells, 1991; Whittaker, 2000).

Interestingly, demographic information such as age, IQ (intelligence rating), prior contact with the juvenile system, severity of the young person's presenting problem, and type and length of treatment have been found to be either not correlated or weakly correlated to outcomes for young people or not predictive of any follow-up ratings or adaptation on leaving care (Curry, 1991; Child Welfare League of America, 2005; Frensch & Cameron, 2002; Pecora et al., 1992; Pecora et al., 2000; Pfeiffer & Strezelecki, 1990). These findings point to the importance of exploring and examining other variables associated with the quality of relationships established and maintained while in care.

3.3.1 Characteristics of young people with high needs and their families

The experiences which children and young people bring to residential care influence outcomes. For example, a young person may have been a victim of neglect or physical abuse or sexual abuse, been a witness to domestic violence, or been a child of a criminal or imprisoned parent (Jackson-Walker et al., 2003). Others may have serious emotional disturbance, including anxiety, attention-deficit disorder, conduct disorder, poor impulse control, demonstrated poorer adaptive behaviours, and high levels of internalising and externalising behaviours. Externalising behaviours may include physical threats, aggression towards others or to property, inappropriate sexual behaviour and continual offending (Whittaker & Maluccio, 1988).

Evidence suggests that punitive sanctions work best with well-socialised, non-impulsive, future-oriented ('stop and think') young people with average and above IQ who are cautious, have low arousal thresholds and have minimal punitive experience and history. Such approaches tend to fail with young people with multiple problems who are persistent in their offending and whose personal characteristics tend to be the opposite of those described (Buist & Whyte, 2004).

Factors contributing to a child or young person's successful adaptation after leaving residential care settings include the following:

- positive contact of parents with the child or young person and residential staff during treatment
- level of support perceived by the child or young person to be available from significant others (family and community) (Taylor & Alpert, 1973) while in care, and in their after-care environment (Lewis, 1982; Wells, 1991)
- completion of academic tasks, attainment of treatment goals, and clinical work with the child's or young person's family (Wells, 1991)
- reduction of stress (Lewis, 1982)
- continuity of relationships (Andersson, 1999).

3.3.2 Service characteristics

Services provided

Residential care can offer a supervised, structured, less emotionally charged placement than foster placement can, and a more consistently responsive environment for promoting the personal growth and development of young people who require such intensive care and support (Anglin, 2002a, 2004).

Service characteristics found to be beneficial, or to provide protective factors, for young people include a skill-focused curriculum, service coordination, development of individualised treatment plans, continuity of care, highly structured routines and schedules (Handwerk, Field & Friman, 2000; Little et al., 2005), and sanctions balanced with resolving social life problems (Buist & Whyte, 2004)

Residential stability of young people has been found to be significantly correlated with increased self-esteem, lower antisocial behaviour, and less substance abuse (Wells, 1991). Comprehensive after-care planning, involvement in after-care, and availability of community-based services to support the transition of a young person from residential placement into the community have also been associated with positive status on leaving care, as have shorter lengths of stay (Hoagwood & Cunningham, 1992).

Staffing and milieu

Residential care can also offer an alternative environment that is not a family setting, where there is diversity of staff with whom the young person can relate, and where there is an intensity of care that is not available to young people in other settings (Anglin, 2002a). It should be noted, however, that attempts to imitate a 'family' environment have been shown to suit some young people and not others. Anglin (2004) found that children and young people with intact families living in group homes disliked attempts by the residence to imitate a family, and benefited from having a diverse care staff and a wider variety of adults with whom to relate. Others may be averse to a family-like environment when the environment from whence they came was untenable and destructive. On the other hand, Devine (2004) found that children and young people reported a critical sense of belonging in family-style homes that they had never experienced in their own homes (cited in Little et al., 2005).

Staff members consciously being less intimate and more youth-centred has been found to be appropriate in residential settings, particularly for children and young people suffering deep-seated effects of trauma and having difficulty controlling their 'acting out' or 'pain-based behaviour' (Anglin, 2002a, 2004). Potentially damaging effects can be mitigated, even for high-risk populations, provided that care homes are small, that staff members agree on aims and methods, and that there is congruence between structure and culture (Anglin, 2002a; Little et al., 2005; Sinclair & Gibbs, 1998).

High staff turnover, poorly trained staff, shift work and staff rotation have been shown to negatively influence outcomes for young people in residential care (Anglin, 2002b). Factors that appear to minimise potential effects of living in a group include careful supervision and disciplinary support, positive relationships with adults and peer influences, consistent one-to-one caring relationships, academic and educational support, presence of supportive community networks, positive attention, a minimally stressful environment, emotional and social support, advice and problem-solving, sharing of personal possessions, and a family-style environment (Anglin, 2002a; Emond, 2003; Handwerk et al., 2000; Little et al., 2005).

Peer group influence

Peer group influence can have both positive and negative effects. 'Positive peer culture' approaches (e.g. Vorrath & Brendtro, 1985) can promote modelling and teaching of skills in positive relating and active challenging of abusive and antisocial relating (Morton et al., 1999). On the other hand, young people in residential care are at risk of physical and sexual assault from peers; boys being over-represented in physical abuse and girls in sexual abuse (Barter, 2003). 'Deviancy training' within adolescent friendships can also increase adolescent problem behaviour, substance use, violence and adult maladjustment (Dishion, McCord & Poulin, 1999).

Family involvement and influence

Family support and involvement have been shown to be significantly correlated with three indices of adaptation of young people leaving care: self-esteem, mastery and psychopathology. The literature surrounding the benefits of 'contact' with family are, however, mixed (Taplin, 2005).

Residential treatment which includes family involvement combined with accessible after-care programs and continued academic participation has also been found to be associated with ongoing success for the young person after leaving care (Hair, 2005⁸). However, adolescents in long-term residential treatment who have had little or no family support, who have experienced high levels of stress, and who have had little residential stability after treatment, were less likely to adapt successfully after leaving care (Wells, 1991).

Interestingly, day programs which include intense family involvement have been found to be a potentially less intrusive alternative as long as families are able and willing to keep the child or young person at home (Hair, 2005). Barriers to family involvement have been linked to the residential facility seeing families as the cause of a child's or young person's problems, and a lack of financial resources with which to work with families (Frensch & Cameron, 2002).

Residential care that aims for positive outcomes for young people is likely to provide more intensive interventions (including program components, and frequency of contact), across multiple systems within which young people operate – family school/work, peer group and neighbourhood. This approach also involves training in interpersonal skills and social perspective-taking, increasing educational, employment, and general life skills, assisting young people to be responsible, helping them build new positive relationships, and graduating levels of intervention with assessed levels of risk/need (Buist & Whyte, 2004).

Overall, successful patterns of adjustment seem to hinge on two factors: the environment a child or young person enters or re-enters, and the degree of family involvement during treatment (Frensch & Cameron, 2002). What is less known, and which influences decisions about placing children and young people in residential care, are the critical combinations or interactions of child and family characteristics, program characteristics, and after-care status (Wells, 1991).

3.4 Conclusions

Few studies suggest that residential care has nothing at all to offer.

Bath (2001) suggests that residential care services will continue because there are no real alternatives. From his perspective, residential care services fail when they do not meet the needs of the particular young people sent to them, and when environments are unstable, abusive and dangerous for both young people and workers. He adds that the future for residential options relies on a diversification that includes smaller, focused, residential treatment options (Bath, 2001). Buist and Whyte (2004) suggest that there are young people who present such risks to others or to themselves that containment may be required. However, such high-risk strategies should be reserved only for young people who are most 'at risk'.

Others say there is a need for major reform (Whittaker, 2000: 9; cited in Tomison & Stanley, 2001), or a framework for change that encompasses case planning, managing difficult behaviour, therapeutic supports, and addressing issues of staffing and agency management (Department of Health UK, 1997). Therapeutic environments which focus on underlying problems associated with trauma and attachment appear to be integral to facilitating the recovery process for this group of children and young people with high needs (Rivard, Bloom, Abramovitz, Pasquale, Duncan, McCorkle & Gelman, 2003).

⁸ A systematic review was conducted to determine what factors increased the likelihood that positive individual and systemic changes occurred for young people following exit from residential treatment (Hair, 2005). Eighteen outcome studies met inclusion criteria (seven examined outcomes immediately upon completion of treatment and at exit, and 11 where outcome progress was assessed at exit).

In tackling the previously identified debate of ‘treatment of choice’ or ‘last resort’ for ‘troubled young people’, Frensch and Cameron (2002) concluded that there will continue to be children and young people with high needs who require highly restrictive placements. Therefore, resource-intensive therapeutic residential services will remain an integral component of a comprehensive system of care for this small but vulnerable group (Frensch & Cameron, 2002; Kutash & Rivera, 1996; Hazell, Tarren-Sweeney, Vimpani, Keatinge & Callan, 2002). However, the environment to which a child or young person returns may be of greater importance in determining their adjustment than changes made by the child or young person during treatment while in care (Lewis, 1982; Taylor & Alpert, 1973).

Strengths and limitations of residential care in the context of child welfare

Strengths	<ul style="list-style-type: none"> • Potential to offer a range of therapeutic interventions (including attachment and trauma therapy) to young people regarded as ‘difficult to treat’ or ‘troubled and troubling’, but who have often been the victims of abuse and neglect.
Limitations	<ul style="list-style-type: none"> • Little is known about the critical combinations of child and family characteristics, program characteristics, and after-care or exit status. • Peer interactions and the mix of children/young people in the setting can be difficult to balance and may influence outcomes.

4. Multi-systemic therapy

Summary of the evidence of effectiveness of multi-systemic therapy

What is MST?

Multi-systemic therapy is an intensive, goal-oriented, time-limited (typically three- to six-month) home- and family-focused treatment model designed to equip children and young people and their families with the skills needed to function more successfully in their natural environment. It is based on the family preservation model of service delivery.

Who is it for?

In general, adolescents who are at risk of out-of-home placement. Most evaluations have involved juvenile justice populations.

What are the outcomes?

Reduction in antisocial behaviour, criminal activity and recidivism rates for arrests; higher family cohesion; and lower peer aggression.

What is the evidence for effectiveness?

Several reviews have classified MST as a 'probably efficacious treatment' in reducing antisocial behaviour.

No conclusions can be drawn as to MST's effectiveness with younger children with milder forms of behavioural disorder, in the Australian context.

What influences effectiveness?

- Training and commitment of therapists, adherence to principles, commitment to the strategy by young people and their families, cooperation within and among relevant staff, positive involvement with peers and community or neighbourhood
- Positive interaction between each system, if not all systems.

4.1 Background and description of MST

Multi-systemic therapy (MST) is an ‘evidence-based’ treatment which uses the family preservation model of service delivery as an alternative to more restrictive settings (Sheidow et al., 2004).

It is based on systems theory (Bertalanffy, 1968) and theories of behaviour such as social ecology, human development (Bronfenbrenner, 1979), cognitive development, childhood psychopathology, family therapy models and community mental health (Henggeler, 1982; Lyons & Rawal, 2005). It began in the 1980s and was developed to address prison recidivism, criminal activity, and other types of antisocial behaviour for children and young people (aged ten to 17 years) referred by the juvenile justice and mental health systems (Burns et al., 2000; Cox, 2005; Henggeler, 1999; Henggeler, Schoenwald, Borduin, Rowland & Cunningham, 1998).

As a treatment model, MST emphasises recognised risk factors associated with antisocial behaviour. Hence, the overarching objective of MST is to empower parents to facilitate pragmatic changes in the young person’s and the family’s natural environment (Curtis, Ronan & Borduin, 2004). To maximise the likelihood of affecting change, MST treatments (involving both the young person and their family) address multiple factors within their social or natural environments (e.g. home, school, peer group, community or neighbourhood) contributing to the development and maintenance of the problems (Bronfenbrenner, 1979; Cox, 2005; Schoenwald, Brown & Henggeler, 2000).

The entire family is usually involved with MST. Parents as well as children and young people receive treatment to address any barriers to effective parenting, such as substance abuse or stress (Burns et al., 2000; Henggeler, 1982; Lyons & Rawal, 2005). This approach contrasts with interventions which might define the young person as the ‘identified client’ (Cox, 2005).

The program is manualised⁹ and usually involves a small group of specially trained clinicians and counsellors headed by a team leader. The first stage of the intervention is a systematic assessment of the young person. Standardised instruments are administered and detailed interviews are undertaken with key people. Based upon initial assessments, therapists develop an individualised strategy for each young person and then implement an intensive treatment ‘package’ using a variety of therapeutic techniques, including structural family therapy, strategic family therapy, behavioural parent training, cognitive behaviour therapy and social skills training. The therapy is carried out initially in the home for hourly sessions on a daily basis to teach parents how to implement more positive parenting strategies (Delfabbro, Osborn & Barber, 2005b).

The MST therapist is guided by nine practice principles and values (Cox, 2005; Henggeler & Schoenwald, 1998) which include identification of problem areas and formal and informal sources of support, and maintenance of therapeutic change. The treatment principles are as follows:

1. The primary purpose of assessment is to understand the fit between the identified problems and their broader systemic context.
2. Therapeutic contacts should emphasise the positive and should use systemic strengths as levers for change.
3. Interventions should be designed to promote responsible behaviour and decrease irresponsible behaviour among family members.
4. Interventions should be present focused and action oriented, targeting specific and well-defined problems.
5. Interventions should target sequences of behaviour within and among multiple systems that maintain identified problems.

⁹ ‘Manualised’ refers to strict guidelines of operation in relation to MST therapy, supervision, consultation and organisation.

6. Interventions should be developmentally appropriate and fit the developmental needs of the youth.
7. Interventions should be designed to require daily or weekly effort by family members.
8. Intervention effectiveness is evaluated continuously from multiple perspectives, with providers assuming accountability for overcoming barriers to successful outcomes.
9. Interventions should be designed to promote treatment generalisation and long-term maintenance of therapeutic change by empowering caregivers to address family members' needs across multiple systemic contexts.

4.2 Evidence of effectiveness of MST for children and young people with high needs

The 'promise' of MST with 'difficult to treat' clinical populations was established in the 1980s (Borduin et al., 1990; Brunk, Henggeler & Whelan, 1987; Henggeler et al., 1986). More recently, MST, as a clinical intervention, has been tested within 'real-world' clinical settings across different service systems in numerous RCTs, and these have confirmed it as an 'effective', 'probably efficacious' and 'promising' treatment model for children and young people with serious behavioural problems (Brestan et al., 1998; Burns et al., 1999; Burns et al., 2000; Chorpita et al., 2002; Lyons & Rawal, 2005; Rosenblatt & Woodbridge, 2003).

Randomised controlled trials of MST have been conducted with the following young people:

- those with serious emotional disturbance at imminent risk of out-of-home placement (Dirks-Linhorst, 2004; Henggeler et al., 1992; Rowland et al., 2005)
- those presenting psychiatric emergencies (Henggeler et al., 1999; Huey et al., 2004; Schoenwald, Ward, Henggeler & Rowland, 2000)
- juvenile offenders meeting diagnostic criteria for substance abuse or dependence and their families (Henggeler & Pickrel, 1999; Leschied & Cunningham, 2002)
- those arrested for sexual offenses (Borduin et al., 1990; Borduin & Schaeffer, 2001)
- those who have committed a violent criminal offense or had prior arrests (Borduin et al., 1995; Henggeler, Melton, Brondino, Scherer & Hanley, 1997; Henggeler et al., 1992)
- those with abusing/neglectful parents (Brunk et al., 1987).

Other trials have studied young Norwegian people with serious behaviour problems (Ogden & Halliday-Boykins, 2004), and young people with poorly controlled Type 1 diabetes (Ellis, Naar-King, Frey, Templin, Rowland & Greger, 2004).

Most of the effectiveness studies on MST have been conducted by the designers of the MST strategy or those associated with them. A meta-analysis of MST outcome studies conducted in the US (again by MST associates) sought to examine the effectiveness of MST by quantifying and summarising the magnitude of effects (treatment outcomes) across all eligible MST outcome studies from 1986 to 2003 (Curtis et al., 2004). Seven primary outcome studies and four secondary studies (i.e. studies reporting secondary analyses of data from primary outcome studies) met inclusion criteria, involving a total of 708 participants. Most studies appeared to be drawn from disadvantaged populations (Curtis et al., 2004).

The findings from the meta-analysis suggested that young people and their families utilising MST 'functioned better' than 70% of young people and their families treated 'by alternative methods' (e.g. by family or individual counselling, social skills training, vocational training, adolescent group therapy, crisis stabilisation, psychiatric evaluation and/or intensive individualised care). These positive findings predictably reflect those which this review found in individual MST studies. However, Curtis et al (2004) raise some important points which need to be taken into account when reviewing MST evaluation studies in general, specifically:

- that closer involvement of MST developers as clinical supervisors in efficacy studies may contribute to higher effect sizes than those generated from effectiveness studies
- whether MST effectiveness studies will be able to demonstrate results that are comparable to those that have been obtained in MST efficacy studies
- that effectiveness studies broaden their assessment of instrumental outcomes in each of the systems pertinent to the goals of MST
- that assessment of change in peer affiliations has generally been limited to measures of association with deviant peers, rather than prosocial peers
- that mechanisms of change need to include measures of performance in school (e.g. grades, achievement levels) and participation in extracurricular activities (e.g. sports teams, church groups, recreation centre activities).

The over-representation of studies by MST designers and associates led Littell (2005) to conduct an independent systematic review to provide unbiased estimates of the impacts of MST on restrictive out-of-home living placements, crime and delinquency, and other behavioural and psychosocial outcomes for young people and their families. They concluded that MST was not consistently more or less effective than other services in preventing restrictive out-of-home living arrangements (e.g. imprisonment, psychiatric hospitalisation), reducing arrests or convictions, or improving youth and family functioning.

A rejoinder by Henggeler et al., (2006) (the main designers of MST) addressed the methodological flaws of the clinical trials that Littell (2005) raised as justification for her conclusion regarding the ineffectiveness of MST. They claimed that:

Littell's conceptual and methodological analyses have misinterpreted and misrepresented MST research studies reflecting poor appreciation for the conduct of community-based research with challenging populations; the distinctions between efficacy, effectiveness, and transportability research; the nuances of conducting meta analyses; the importance of treatment fidelity to internal validity; and the fact that not all outcome studies are asking the same conceptual questions.

Replication of RCTs with different research groups needs to be attempted by others to confirm the robustness of findings and to determine whether the same benefits can be demonstrated with less support from MST experts across a range of settings (Lyons, 2005; Littell, 2005; Delfabbro et al., 2005b) and in countries other than the US. As the name implies, multi-systemic therapy or treatment also needs to be evaluated at multi-systemic levels (Henggeler & Schoenwald, 1998).

In summary, MST, as an empirically established treatment for violent and chronic juvenile offenders, appears to be 'robust' with this group and worthy of wider implementation and continued evaluation. There is already recognition of the need for a quality assurance system for MST in an attempt to ensure that treatment fidelity is maintained in the absence of the treatment developers (Curtis et al., 2004).

4.3 Outcomes for young people and families with high needs using MST

4.3.1 Outcomes for young people

The literature reports a number of outcomes for young people using MST. These include:

- reduced arrests, higher family cohesion and lower peer aggression (Henggeler et al., 1992)
- lower recidivism rates for arrests, sexual offences and criminal offences (Borduin et al., 1990; Henggeler, Schoenwald, Borduin, Rowland & Cunningham, 1998)
- fewer and less serious crimes committed and fewer arrests for violent crimes, reduction in incidence and severity of criminal acts, and improved family outcomes (Borduin et al., 1995; Henggeler, Schoenwald, Borduin et al., 1998)
- decreased behaviour problems and extensive improvements in family relations (Henggeler et al., 1986)
- effective restructuring of problematic parent-child relations with abusive and neglectful families (Brunk et al., 1987)
- reduced drug use (Borduin et al., 1995; Henggeler et al., 1992).

4.3.2 Outcomes for families

Changes in 'family empowerment' (see Principle No. 9 above) have been associated with changes in caregiver functioning and family relations. In this regard, increased empowerment at the family level has been found to be significantly associated with decreased caregiver symptomatology over time, improved family cohesion and increased caregiver supervision of the young person (Cunningham, Henggeler, Brondino & Pickrel, 1999). Overall, MST has demonstrated larger effects on measures of family relations than on measures of individual adjustment or peer relations. This focus on the family is aligned with MST principles in general (Curtis et al., 2004). Positive family outcomes may be more difficult to achieve in the child welfare context; there is still limited research of the impact of MST on a child welfare population.

4.3.3 Service outcomes

At the service level and in comparison with control groups, MST has been found to achieve the following outcomes:

- treatment completion
- decreased number of days in out-of-home placement
- high levels of satisfaction among young people and their families
- cost effectiveness.

4.4 Factors influencing outcomes for young people with high needs using MST

Multi-systemic therapy is an intervention strategy which recognises that behavioural problems arise from many levels of influence (Burns et al., 2000; Henggeler & Pickrel, 1999) beyond the young person, including the family, the peer group, the school environment and the community or neighbourhood.

4.4.1 Characteristics of the young person and family

Characteristics of the young person and family are inextricably linked. For example, a difficult temperament can be a product of the interaction between the young person's biological predisposition and the parents' behaviour towards them (Kashani, Jones, Bumby & Thomas, 1999). The family can be characterised by poor discipline, conflict and parental drug abuse. In turn, young people involved in MST strategies have been found to have favourable attitudes toward drug use (Henggeler, Pickrel, Brondino & Crouch, 1996). Those who appear in juvenile justice and psychiatric settings for violent behaviour usually meet diagnostic criteria (American Psychological Association, 1994) for conduct disorder, parent-child relationship problems, attention-deficit/hyperactivity disorder, or a depressive disorder (Kashani et al., 1999).

4.4.2 Characteristics of the peer group

Peer groups influence the behaviour of their members. For example, peers of the young person involved in MST strategies have also been found to have favourable attitudes towards drug use (Henggeler et al., 1996). This group influence may also extend to aggressive and antisocial behaviours. Conversely, positive peer attributes (e.g. problem-solving, sharing possessions, caring for each other) may influence anti-social behaviours towards pro-social behaviours.

4.4.3 Characteristics of the school, neighbourhood or community

School and neighbourhood are closely linked and are likely to share cultures and subcultures (Henggeler et al., 1996). High 'drop-out' rate, low attendance and poor performance levels in school characterise young people involved in MST strategies. Within a culture of violence, repeated exposure to violence through the media, and accessibility to weapons (particularly in the US), drugs and alcohol have been linked to increased violence (Kashani et al., 1999).

Characteristics of these systems reflect the 'behaviour' focus adopted by MST strategies. In the same way, MST aims to correct behaviour by improving family emotional bonding and parental discipline strategies, increasing parent-teacher communication and academic performance, and promoting involvement in extracurricular activities, structured sports or volunteer organisations. Success for those involved in MST is operationalised in terms of lower recidivism rates, improved family and peer relations, decreased behavioural problems at home and school, and lower rates of out-of-home placements (Kashani et al., 1999).

4.4.4 Adherence to MST principles and cultural differences

Effectiveness studies of MST rely on strict adherence to its principles, and inclusion and exclusion criteria by both users and therapists. While this allows for more rigorous testing, the criteria would less likely be adhered to outside the US in countries which adopt a less punitive approach to problem behaviours, emphasise positive reinforcement and have fewer restrictions on alcohol consumption.

Children and young people with high needs in Australia, for example, may not respond to authoritarian US style of MST intervention (Delfabbro et al., 2005b). Therefore, the extent to which MST principles could be adapted to be more culturally sensitive to the Australian context is an important consideration. Approaches are, in turn, reflected in the training of MST therapists. This being the case, fidelity of MST, as a strategy, would then be compromised.

4.5 Conclusions

In summary, most MST evaluations have involved juvenile justice populations. It is unclear whether the strategy can be applied to young people with milder forms of behavioural disorder, less associated with broader system factors (Delfabbro et al., 2005b). It is also difficult to conclude which groups of young people would benefit from using MST strategies because of the variation in factors involved.

Outcomes rely on the training and commitment of MST therapists, adherence to principles, commitment to the strategy by young people and their families, cooperation within and among school staff, positive involvement with peers and community or neighbourhood, and positive interaction between each system, if not all systems.

Strengths and limitations of MST in the context of child welfare

Strengths	<ul style="list-style-type: none"> • An evidence-based treatment which uses the family preservation model of service delivery as an alternative to more restrictive settings.
Limitations	<ul style="list-style-type: none"> • Involves juvenile justice populations; no conclusions can be drawn as to its effectiveness with younger children with milder forms of behavioural disorder. • Requires intensive training of therapists. • Requires a strong commitment from therapists, children, young people, families and community. • Adherence to MST principles in the Australian context.

5. Service coordination and integration

This section of the review examines three approaches to service coordination and integration that have been identified in the literature as potentially effective in responding to children and young people with high needs. These approaches are:

- case management
- Wraparound
- the US Systems-of-Care model.

In some reviews, case management and Wraparound have been viewed as variations on a common theme. As they have evolved, however, they have developed distinct (although not entirely disentangled) niches and literatures (Farmer et al., 2004). Case management focuses more specifically on coordinating and facilitating service delivery, while Wraparound provides more focused attention on the way in which service delivery is planned (Farmer et al., 2004).

A key theme in the literature that discusses the challenges of responding to children and young people with high needs is the necessity for integration across service delivery systems. Integration of service delivery at a system or organisational level is required in order to address the multiple and co-occurring needs of these children and young people. The US Systems-of-Care model represents one of the few well-researched attempts to provide an integrated service delivery approach to this population of children and young people.

5.1 Case management

Summary of the evidence of effectiveness of case management

What is case management?

Definitions of case management vary, and include 'care management', 'care coordination', 'service coordination' and 'intensive case management' across diverse populations. Elements include assessment, service planning, implementation and coordination, monitoring, evaluation and advocacy. It is derived from the concept of 'continuity of care'.

Who is it for?

Children and young people with high needs that are not met through existing services.

What are the outcomes?

Reduction in externalising behaviour and internalising symptoms, reduction in drug and alcohol use, improvement in self-concept and social competency; improvement in service use, more days spent in the community and fewer in hospital and restrictive settings, and decreases in unmet medical, recreational and educational needs.

What is the evidence for effectiveness?

A 'convincing evidence base' is developing for intensive case management as a 'promising' or 'potentially efficacious' service in reducing antisocial behaviour and the risk of use of restrictive settings (Evans & Armstrong, 2002; Farmer et al., 2004).

What influences effectiveness?

Availability of services and level of coordination of service components.

5.1.1 Background and description of case management

There is no agreed upon terminology or definition of 'case management' (Winters & Terrell, 2003), and there is diversity in what is provided and who provides this service. Terminology, definition and utilisation of case management varies, involving 'care management', 'care coordination', 'service coordination' and 'intensive case management' across diverse populations. Elements of case management include assessment, service planning, implementation and coordination, monitoring, evaluation and advocacy.

Broadly, case management is a strategy that actively mobilises, coordinates and maintains a diversity of services for the individual child or young person and their family (Stroul & Friedman, 1986). It has been described as the 'glue that holds the system together' (Stroul & Friedman, 1986: 109), or the 'lynchpin for an effective interagency system' (England & Cole, 1992: 362; Farmer et al., 2004).

Key models of case management include the generalist or service broker, the primary therapist model, the interdisciplinary team, the comprehensive service centre, the family as case manager, and the volunteer as case manager (Farmer et al., 2004). Further, case management has been used across diverse populations, including the elderly, individuals with developmental disabilities and brain injury and chronic medical illness, drug-dependent mothers, and HIV-infected young people (Farmer et al., 2004).

Within the Australian context, case management came to be embraced as 'the solution' for a wide range of human service-related problems in the 1980s and 90s (Fisher & Fine, 2002). It was adopted at a program level in the mid-1990s by the Supported Accommodation Assistance Program (SAAP)¹⁰ so that services funded under the program were required to implement a case management approach to working with clients (Department of Health and Family Services, 1997). It has been used in the health and aged care sectors as a means of improving efficiency in resource allocation to clients with complex (health) care needs that could not be met through existing services (Fisher & Fine, 2002). Similarly, case management has been used as a means of improving support to unemployed job-seekers (Eardley & Thompson, 1997).

5.1.2 Case management within a child welfare context

Case management is considered an essential component of each of the services and interventions described in this review, including Wraparound and Systems-of-Care (Winters & Terrell, 2003). While sharing similarities with Wraparound, case management operates at the client (i.e. child and family) level, whereas Wraparound, in general, works at the system level, emphasising service planning, coordination and linking of services. The goal of case management for children and young people and their families is the provision of individualised services and the tailoring of those services to the particular needs of the child or young person.

Case management performs a range of functions. It ensures that services are suited to the individual child and family, are clinically and culturally appropriate, and lead to desired outcomes. Stroul and Friedman (1996) articulated the basic elements of case management as:

- assessment
- service planning
- service implementation, including linking, brokering (procuring), resource development, and troubleshooting obstacles
- service coordination (ensuring multiple services are directed at the same goal)
- monitoring and evaluation
- advocacy, including empowering families and overcoming barriers.

¹⁰ SAAP is a joint Commonwealth-State funded program responding to people who are homeless or at risk of homelessness.

The term ‘intensive case management’ (ICM) is most commonly used in the literature that discusses case management for children and young people with high needs. However, ICM is vaguely defined as meaning more ‘intense’ than usual case management, highlighting the lack of consensus about definition, conceptualisation or service parameters (Schaedle & Epstein, 2000). Intensive models of case management provide direct support and clinical roles (Winters & Terrell, 2003:174), and can be distinguished from other models of case management by the frequency of contacts, generally lower caseload sizes, duration of service and, in some cases, authority for funding and accountability. Importantly, ICM aspires to a set of common principles and core operational functions derived from the concept of continuity of care. For the purposes of this review, the term intensive case management will be used to refer to both studies of case management and intensive case management with children and young people with high needs.

5.1.3 Evidence for the effectiveness of intensive case management

There has been a number of randomised trials of ICM with children and young people with high needs and most have demonstrated positive improvements over time. However, many of the reported improvements are found in service use, such as decreased hospitalisation and increased use of community-based services, rather than in individual and family functioning (Farmer et al., 2004).

A model known as Children and Youth Intensive Case Management (CYICM) has been evaluated in two controlled studies. The program has been described as an expanded broker model, which means that the case manager, in addition to brokering services, is responsible for assessment, planning, linking and advocating on behalf of the young person and their family.

In the first study, Evans and Armstrong (1994) found that children in the program spent significantly more days in the community between episodes of psychiatric hospitalisation and were hospitalised for fewer days than they had been before enrolment in the program. A subsequent study evaluated a random sample of 199 children enrolled in CYICM (Evans, 1996). Findings at three-year follow-up indicated significant behavioural improvements and decreases in unmet medical, recreational and educational needs compared with those who did not receive the expanded model.

More recently, Evans et al., (2003) examined the effects of three interventions: home-based crisis intervention, home-based crisis intervention ‘plus’, and crisis case management. All three interventions led to improvements across time in some outcomes for young people, such as improved self-concept and reduction in internalising symptoms. Young people receiving crisis ICM (the most intensive approach) made the most gains in these areas. Evans et al., (2003) found no improvements in externalising behaviours and social competency between admission and leaving care, but reductions in externalising behaviour were noted six months after the young people had left care. All three programs were successful at maintaining most young people in their communities.

Gains in individual and family functioning are not evident in all studies, but, at a minimum, studies have demonstrated an improvement in service use and often placement in less restrictive settings. For example, two teams of researchers (Burns, Farmer, Angold, Costello & Behar, 1996; Yoe, Santarcangelo, Atkins & Burchard, 1996) compared the impact of a full-time case manager (experimental group) to the primary therapist or mental health clinician acting as case manager for children and young people with high needs. Both studies reported significant improvements on retention in services, array of services used, and use of less restrictive community-based services. However, there were few individual or family level improvements at 12 months. Yoe et al., (1996) also reported greater satisfaction with services among young people in the intervention group.

Similarly, in one study, young people who were released from residential treatment for substance-related problems were randomly assigned to usual care or to an ICM model after release from treatment for 90 days. Results at three months after release showed that young people in the case management group were more likely to access and continue using services, were more likely to abstain from marijuana, and had reduced use of alcohol, compared with young people in the usual care condition (Godley, Godley, Dennis, Funk & Passetti, 2002).

Given ICM's current evidence base, Farmer argues that it is a 'promising' or 'potentially efficacious' intervention (Farmer et al., 2004). However, as Farmer et al., (2004) suggest, studies of ICM need to be replicated, particularly to determine the necessary dose, functions and intensity of effective ICM and to assess fidelity. The effects of ICM also need to be evaluated systematically to determine the impact of other interventions that the young person and their family receive. The difficulty is in determining whether it is the case management itself or particular services among those being 'case managed' that are more or less critical to positive outcomes.

Strengths and limitations of case management in the context of child welfare	
Strengths	<ul style="list-style-type: none"> • An essential component of various services and interventions (including Wraparound), providing individualised and tailored services to the particular needs of the child or young person and family.
Limitations	<ul style="list-style-type: none"> • Lack of consensus about definition, conceptualisation or service parameters. • Difficulty in determining necessary 'dose', functions and intensity of effective case management. • Difficulty in determining whether it is the case management itself or particular services among those being 'case managed' that are critical.

5.2 Wraparound

Summary of the evidence of effectiveness of Wraparound

What is Wraparound?

Wraparound is a 'planning process involving the child or young person and family that results in a unique set of community services and natural supports individualised to the child and family, to achieve a positive set of outcomes' (Burns & Goldman, 1999: 28). It focuses on the way in which service delivery is planned.

Who is it for?

Children and young people with serious emotional and behavioural disturbance who are identified by child welfare or juvenile justice as being at immediate risk of out-of-home placement and being removed from the community.

What are the outcomes?

Reductions in the likelihood of out-of-home care (OOHC) and restrictive placements, and improvements in psychological and behavioural functioning.

What is the evidence for effectiveness?

Studies have reported both 'promising' results and results falling on the 'weak side of promising' as a service for maintaining young people in their homes.

What influences effectiveness?

- adherence to elements and principles
- involvement of family members and community supports
- organisational, policy and funding constraints.

5.2.1 Background and description of Wraparound

'Wraparound' is an intervention defined as a 'planning process involving the child and family that results in a unique set of community services and natural supports individualised for that child and family to achieve a positive set of outcomes' (Burns & Goldman, 1999: 28).

There are some obvious connections between the Wraparound process and case management. The role of case management in service implementation and coordination, monitoring, and advocacy is critical to the Wraparound process (Winters & Terrell, 2003).

Unlike other evidence-based practices, Wraparound was not developed by a single person or research group, but guided by a diverse set of loosely affiliated providers, trainers and family advocates (Bruns & Walker, 2000). The main authors examining Wraparound include Knitzer (1982), Stroul and Friedman (1986) and Munger (1998).

Wraparound is a philosophy of care broadly based on an ecological/social environmental approach (Burns et al., 2000; Munger, 1998) which assumes that a young person will function best when the larger service system surrounding them is coordinated efficiently with the micro-system of the immediate home and family environment. As the name implies, services are 'wrapped around' young people who are identified by child welfare or juvenile justice as being at immediate risk of out-of-home placement and being removed from the community (Burchard & Clarke, 1990; Burns et al., 2000).

The development of Wraparound was driven by a pragmatic need to resolve conflicting policies and procedures and to create more sensible pathways through the bureaucratic maze of multiple agencies serving young people with high needs (Burns et al., 2000). It has since become a mandated¹¹ program in the US in order that 'services be tailored to the specific needs of all children and families' (VanDenBerg, Bruns & Burchard, 2003). In some US communities and states, Wraparound describes any service purchased with flexible funds, or any form of team process for developing plans. Elsewhere, it is a professional system that uses a continuum of care (Bruns & Walker, 2000), or is a definable planning process which refers to a set of practices and procedures used to develop individualised services and supports for multi-need families (Cox, 2005).

Wraparound involves the young person and family and results in a unique set of community services and support individualised for the child and family to achieve a positive set of outcomes. Four principles characterise Wraparound programs (Lyons & Rawal, 2005):

- a strengths-based approach
- 'life-domain' planning
- case management
- development of natural supports (e.g. extended family, friends and neighbours).

The program or service has two primary goals:

- to reduce the likelihood of OOHC and unnecessarily restrictive placements
- to improve behavioural and emotional functioning (Lyons & Rawal, 2005).

Wraparound was designed to work with families and young people with serious emotional and behavioural disturbance and multiple, complex needs. It aimed to address the lack of fit between family needs and actual services/supports provided, the lack of full engagement of families in the process, and the lack of a program and system environment to support flexible, individualised care for families (Bruns, 2004).

¹¹ Wraparound was congressionally mandated in 1996 in order that the US Department of Defense develop, implement and evaluate a demonstration project and utilise a 'wraparound' mental health service system for child and adolescent military dependents (Bickman, Smith, Lambert & Andrade, 2003).

According to Farmer et al., 'Wraparound is simultaneously a widely used approach (used, as of 2000, in the majority of the US and territories), and a difficult intervention to operationalise and study' (Farmer et al., 2004:868). Since the development of connections between services and people often takes time, Wraparound is usually, by its very nature, a longer-term intervention that can require many months to complete, particularly when supporting vulnerable young people and their families (Delfabbro et al., 2005b). Barriers to implementation include organisational, policy and funding constraints – specifically, excessive documentation requirements, rigidity around access to and payment for services and supports, and inconsistent team support (Bruns, Suter, Burchard & Leverentz-Brady, 2004; cited in Walker & Schutte, 2004).

5.2.2 Evidence for effectiveness and outcomes for young people with high needs using Wraparound

By definition, Wraparound is both a philosophy and a process for realising this philosophy in practice. Although the concepts and philosophy underlying the process are sound, the intricacies and subtleties prescribing specific procedures are more intuitively logical than empirically validated (Scott & Eber, 2003).

Studies have reported Wraparound as both yielding 'promising' results and results falling on the 'weak side of promising' (Farmer et al., 2004). The model's flexible, individualised nature and grassroots development make rigorous testing difficult (Lyons & Rawal, 2005). The growth in Wraparound's popularity has been driven primarily by the appeal of its underlying philosophy (Bruns, Burchard, Suter, Force & Dakan, 2003; VanDenBerg, 1993) rather than by its empirical evidence for effectiveness. As such, there is a lack of empirical evidence using RCTs to show whether Wraparound works any better than regular services such as individualised therapies (Burns et al., 2000).

Burns, Hoagwood and Mrazek (1999) reviewed multiple uncontrolled studies of case management using a Wraparound approach. Overall, they concluded that there is 'emerging evidence' for the effectiveness of Wraparound, although results often focus on service use rather than clinical status. Concern for the integrity of Wraparound interventions, raised by Burns et al., (1999), was also a concern raised by Burchard et al., (2002) in their recent review.

These studies suggest two priority areas for future research on the effectiveness of Wraparound:

- establishing a reliable method to assess fidelity of the intervention
- more controlled studies contrasting Wraparound with other interventions.

The lack of shared standards or guidelines for Wraparound's practice has not only created problems around evaluation of effectiveness but also around issues of quality assurance and fidelity (Bruns & Walker, 2000). In an effort to improve rigour in testing and evaluation, the Wraparound Fidelity Index (WFI)¹² was designed and developed (Bruns, Suter & Burchard, 2002).

There has been a number of studies published using Wraparound demonstration programs (Lyons & Rawal, 2005). For example, a quasi-experimental (non-randomised comparative) design was used to evaluate the (congressionally mandated) Wraparound demonstration (Bickman, Smith, Lambert & Andrade, 2003) using a Wraparound mental health service system for child and adolescent military dependents. Both groups showed improvement on some measures, but there were no differences in functioning, symptoms or life satisfaction. The authors argued that (in this particular study), the ability to identify young people and assign them to appropriate services was not sufficiently well developed, that the services delivered to the families were not effective, and that no matter how they were delivered they would not make any difference on the outcomes. They suggested the mental health outcomes could have been a function of a poorly implemented evaluation.

¹² The WFI is completed through brief, confidential telephone or face-to-face interviews of young people, caregivers and resource facilitators (e.g. care coordinators or case managers) and incorporates assessment of adherence to the 'essential elements' of the program (Bruns, Suter & Burchard, 2002).

5.2.3 Factors influencing outcomes of Wraparound

Wraparound outcomes for young people include reductions in the number of days and level of restrictiveness of residential placements, and improvements in school performance and psychological and behavioural functioning (Burns et al., 2000). These outcomes have been supported by other studies that have shown improved social, emotional and behavioural functioning for young people and improved quality of life and school performance (Burns, 2002; Rast & Bruns, 1999; VanDenBerg, 1993).

Meeting individual service needs, which can vary greatly among young people, is most salient to outcomes (Toffalo, 2000). However, given the multifaceted nature of Wraparound, variations in the availability of community resources and the idiosyncratic nature of each intervention, the difficulty may be to determine exactly which component works most effectively (Delfabbro et al., 2005b).

A number of challenges exist to implementing and evaluating Wraparound. These include:

- inconsistent adherence to its elements and principles such as not engaging important individuals on the child and family team, especially school personnel, friends and family advocates
- limited involvement of the young person in community activities and activities the young person does well
- limited use of family and community strengths to plan services
- limited flexible funds to implement innovative ideas generated from team planning, and inconsistent measurement of consumer satisfaction (Bruns, Suter, Burchard & Leverentz-Brady, 2003)
- flexible funding (programs remain hampered by traditional reimbursement procedures and agencies that continue to operate in isolation) (Bruns & Walker, 2000)
- a clear understanding of family-centred, community-based principles and strategies (Bruns & Walker, 2000)
- intensive and ongoing training, supervision and administrative support (many Wraparound programs do not provide such supports to the staff) (Bruns & Walker, 2000).

Wraparound involves a family-centred and culturally competent individualised plan and process (Walker & Schutte, 2004). Barriers and challenges to implementing Wraparound with 'difficult to serve' young people in community-based contexts have been identified (Marks & Lawson, 2005), and include the following:

- Some families receiving the service have few, if any, social supports, which is most apparent in disadvantaged neighbourhood communities. They often choose not to involve their friends, relatives or neighbours in team meetings for reasons such as shame and protection of privacy, and they prefer to use 'professionals' rather than their own informal system of support to help care for young people.
- Some families are poor or disadvantaged and find it hard to commit time and energy to their neighbours or kin; they do not always follow through on agreements made, especially for young people returning to homes with an overwhelmed single parent and many siblings; they may also become dependent on program services (an unintended consequence).
- Getting young people and families to actively participate in and accept joint responsibility and accountability for their plan's success is a persistent challenge.

- Lifestyles of young people and/or family members can involve chronic substance abuse.
- Skills, talents and capabilities of young people are under-utilised, and they also experience alienation from school and exclusion from mainstream recreational and youth programs.

In turn, these challenges are likely to influence staff morale, wellbeing and retention (Marks & Lawson, 2005).

Strengths and limitations of Wraparound in the context of child welfare	
Strengths	<ul style="list-style-type: none"> • Services are ‘wrapped around’ young people who are identified as being ‘at risk’ of being placed in out-of-home placement.
Limitations	<ul style="list-style-type: none"> • Its ‘flexible’ and ‘individualised’ nature and grassroots development may result in an ‘any service will do’ approach. • Limited evidence to suggest it works any better than regular services such as individualised therapies.

5.3.1 Background and description of Systems-of-Care

The Systems-of-Care model was developed in the US to improve services for children with severe emotional disturbances. It was established in response to research in the early 1980s showing that two-thirds of all children and young people with severe emotional disturbances in the US did not receive the services they needed (Knitzer, 1982). This research highlighted that the mental health service system was fragmented, and that services were provided either in inappropriately restrictive settings or not at all.

In response to these findings, the US Congress authorised the Child and Adolescent Service System Program (CASSP) in 1984, and provided funding to address these service shortfalls. In 1992 the Center for Mental Health Services (CMHS) developed the Comprehensive Community Mental Health Services for Children and Their Families Program, providing grants to states and communities to develop organised interagency Systems-of-Care for children with severe emotional disturbances and their families.

Since its inception, this program has provided over 100 grants in excess of \$US700 million to improve service delivery, with over 53,000 children and families the recipients so far (Holden & Brannan, 2002; Holden, Friedman & Santiago, 2001; Holden et al., 2003). The US Congress continues to support this initiative to the tune of \$80 million per annum (Lourie, 2003).

5.3.2 Overview of the Systems-of-Care model

The Systems-of-Care model is distinguished from the notion of a 'continuum of care'. Whereas a continuum of care generally connotes the provision of a range of services, the Systems-of-Care model not only includes service components but also encompasses mechanisms, arrangements and structures to ensure that services are provided in an integrated way (Stroul & Friedman, 1994). Hence, Systems-of-Care is defined as:

'... a comprehensive spectrum of mental health and other necessary services which are organised into a coordinated network to meet the multiple and changing needs of children and adolescents with severe emotional disturbances and their families' (Stroul & Friedman, 1994: 3).

The Systems-of-Care model has a clear focus on addressing the needs of children and adolescents with severe emotional disturbances across a range of service delivery systems, including mental health, juvenile justice, child welfare, substance abuse and special education.

Funding provided by the CMHS is directed to two levels:

- infrastructure to house, organise, coordinate and manage the integration of program elements
- service delivery to provide the services and interventions for children, young people and their families (CMHS, 2001).

The actual implementation of the Systems-of-Care model, in terms of service components and organisational arrangements, has differed from state to state and community to community (Stroul & Friedman, 2003). However, there have been some common approaches to implementation:

- Inter-agency structures have been established across public, private and not-for-profit organisations to achieve improved coordination. Interagency councils have tended to function at two levels: one representing the agency director level for decisions about the system overall, and another representing operational or managerial level, for day-to-day case coordination.
- Services offered have tended to be a mix of three main elements – traditional clinical care (through a range of non-medical organisations), intake and referral services and Wraparound services (CMHS, 2001).

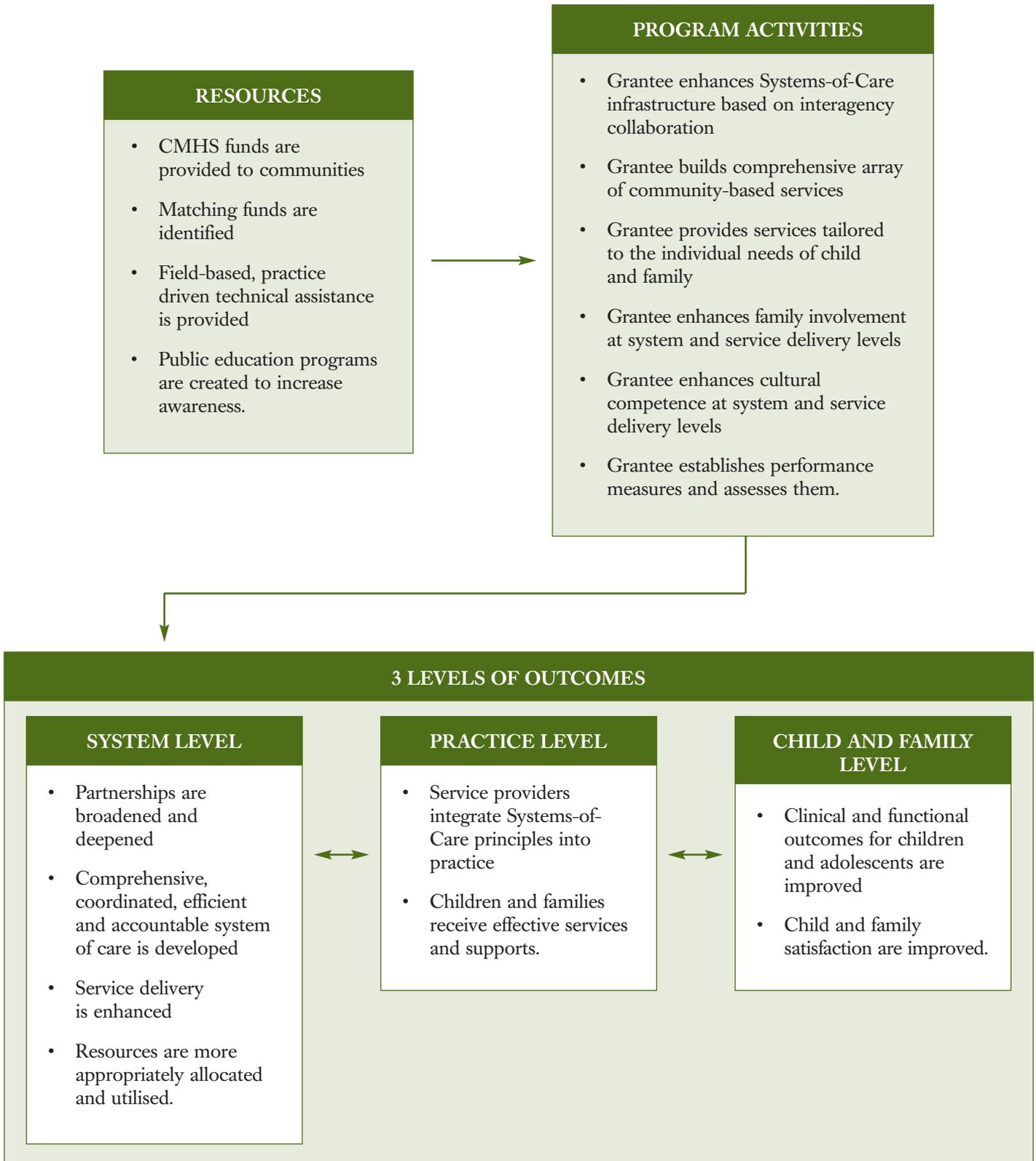
In addition to these implementation elements, Systems-of-Care incorporates an operational philosophy about the way services should be delivered to children and their families. Three core principles have been identified (Stroul & Friedman, 2003: 19-20):

- Systems-of-Care should be child centred and family focused (a commitment to adapt services to the child and family rather than expecting them to adapt to the constraints of agencies and programs).
- Systems-of-Care should be community based (provision of a community-based network of services, offering less restrictive, more normative treatment environments within or close to the child's home community).
- Systems-of-Care should be culturally competent (responsive to the cultural, racial and ethnic differences of populations served).

The basic program logic for this approach is depicted in Figure 1.

Essentially, it is proposed that 'changes in communities' service delivery systems are expected to impact on the quality and quantity of services that children and their families receive, which should lead to improved outcomes for those children and families' (Cook & Kilmer, 2004: 665). Hence, outcomes are expected at a systems/organisational level, at a practice level and at the level of the child and family.

Figure 1: Systems-of-Care program logic



5.3.3 Effectiveness of the Systems-of-Care model

There have been several reviews of the empirical status of the Systems-of-Care model. Most notable are reviews by Rosenblatt (1998), Holden et al., (2003), Friesen and Winters (2003) and Cook and Kilmer (2004). The consensus has been that there is a growing body of evidence suggesting that Systems-of-Care leads to improved interagency working. However, the gains for the children and adolescents served along with their families have been modest. As a result, the evidence is mixed regarding the effectiveness of Systems-of-Care on outcomes for children and young people with high needs.

Studies demonstrating positive outcomes

Holden et al., (2003) compared the Stark County Systems-of-Care and a matched community at Mahoning County. Stark County offered twice as many services to clients than Mahoning. More ICM was evident at Stark County and this was reflected in collaboration among agencies and service providers for the coordination of services, thus providing continuity of service.

These positive organisational features were paralleled by outcomes for clients. The children and adolescents entering Mahoning (non-Systems-of-Care) with multiple juvenile justice offences were significantly more likely to go onto more such charges after two years of services than their counterparts in the Stark County (Systems-of-Care) (Holden et al., 2003). Over time, young people in Stark County also showed better outcomes at school, including a lesser need for special education, a reduction in suspensions, and improved peer acceptance.

A study undertaken by Walrath, Mandell and Leaf (2001) revealed good client outcomes, as internalising and externalising symptoms (as measured by the Child and Adolescent Functional Assessment Scale (CAFAS)) had improved from baseline to six months follow-up, regardless of the referring agency, presenting problems, risk factors, age or gender.

Jacobsen and Cervine (2001) examined the Systems-of-Care model operating in Santa Cruz, California. There have been simple pre-test/post-test analyses, comparisons between data for the Systems-of-Care and for the other counties throughout the state, and several measures of child/adolescent and family functioning and stakeholder satisfaction. Sample sizes varied between 530 and 748.

From early on, interagency collaboration has been associated with below-rest-of-the-state averages for out-of-home placements for children and adolescents with multi-service needs. This appeared to reflect improved client outcomes and reduce the need for out-of-home services. Before 1989, Santa Cruz group home expenditures were well above state averages, but were well below for 1989-1999. Following implementation of Systems-of-Care, hospitalisations dropped from an average of five per year to none, school attendance and performance improved significantly, and rearrests dropped dramatically.

Other positive client outcomes were that over three years (1995-98) clinicians estimated significant improvements in the functioning of child and adolescent clients (per CAFAS scores) and 94% of parents were either highly or moderately satisfied with services rendered.

In Marion County, Indiana, the Systems-of-Care is entitled 'The Dawn Project' and serves 467 children and adolescents. Preliminary analyses by Anderson, Wright, Kooreman, Mohr and Russell (2003) have shown significant clinical improvement (scores on the CAFAS) during the first year of receiving services, and a reduction in recidivism among young people completing the program.

Studies demonstrating uneven or negative outcomes

Recent comparisons from a 1997 longitudinal study offered findings that were generally, though not totally, positive. A total of 75 children and families were randomly chosen from three Systems-of-Care (Canton, Santa Cruz and Baltimore) and three matched communities that were not funded but that nevertheless applied Systems-of-Care principles in varying degrees (Youngstown, Austin and West Baltimore). Stephens, Holden and Hernandez (2004) showed that the communities consistently practised the Systems-of-Care philosophy and were able to reduce symptoms (as measured by the Child Behaviour Checklist (CBCL)) and dysfunction (as measured by the CAFAS) in children and adolescents at six months. However, this improvement was not sustained: by 12 months there was no significant difference between Systems-of-Care clients and non-Systems-of-Care clients. There was a qualification, though: the more that children and adolescents experienced Systems-of-Care principles across communities that did and did not use the model, the better their outcomes, demonstrating a definite benefit to adopting these principles.

The Systems-of-Care 'demonstration' at Fort Bragg was compared to two matched sites that offered services as usual to children and adolescents with multi-service needs (Bickman, 1996; Bickman, Foster & Lambert, 1996; Hamner, Lambert & Bickman, 1997). Fort Bragg provided an expanded array of services, a single point of entry into the Systems-of-Care, care coordination through case management, comprehensive client assessments, and virtually unlimited services to meet the needs of clients.

Bickman and colleagues found some positive client outcomes. The children and adolescents at Fort Bragg received more services (with a decrease in hospitalisation and residential treatment) more quickly and over longer periods of time, while parents and adolescents reported greater satisfaction with those services than at comparison sites. On the downside for Fort Bragg, however, there was no difference between the outcomes it produced for children's symptoms and functioning and those produced by the comparison sites. There was equivalent client improvement across sites, with results favouring either Fort Bragg or the comparison groups depending on the particular measure. There has been much debate about these ambiguous findings (see Cook & Kilmer, 2004 for a summary), with the suggestion that they were precipitated by a lack of fiscal incentives for controlling costs (Foster, 2001).

Bickman and his colleagues (Bickman, 1996; Bickman, Noser & Summerfelt, 1999) also evaluated the publicly funded program at Stark County. Families were randomly assigned to the program or to standard care, which entailed parents securing their own services. The Systems-of-Care group received more case management and home visits than the comparison group and, at 24-month follow-up the Systems-of-Care group showed modest differential improvements in problem behaviours. However, when children who received treatment (across groups) were compared to those who did not receive treatment (in Stark County and the comparison sites), those receiving no formal treatments showed greater gains than the treated children.

Pandiani, Banks and Schacht (2001) captured data for up to 33,000 children and adolescents who moved in and out of ten Systems-of-Care programs within Vermont between 1993 and 1998. They discovered that greater caseload integration across sites was correlated with less referral for residential care (a positive outcome) but higher rates of juvenile detention (a clearly negative outcome).

5.3.4 Factors influencing outcomes in Systems-of-Care

As Figure 1 indicates, the Systems-of-Care program logic is complex and aims to achieve outcomes at three levels, in the following order:

- (i) Establishment of new or improved system and organisational partnerships to more appropriately allocate and utilise new and existing resources
- (ii) so that there are improvements to the accessibility, quality and quantity of services guided by a set of key practice principles,
- (iii) ultimately resulting in improvements in child and family outcomes.

The goal of achieving outcomes at the first two levels significantly increases the number of variables likely to impact on outcomes for children and young people at the third level.

Within this context, there is a number of factors that will impact on the assessment of outcomes in the Systems-of-Care model. These include the following:

- The characteristics of children and young people who use Systems-of-Care services are quite varied. While this population can be generally described as having high needs, the nature and diversity of those needs is broad and spans multiple domains, particularly mental health problems (involving a range of behavioural and conduct disorders) but also substance abuse, offending and juvenile justice issues, special education needs and child welfare issues.
- The role of community and contextual factors in Systems-of-Care sites, beyond the provision of formal services, will have an impact on outcomes for children and families. However, the research on Systems-of-Care has generally tended to focus on clinical treatments and neglected to consider the broader set of community factors as key variables in mediating outcomes (Cook & Kilmer, 2004).
- While there has been considerable variation in the implementation of the Systems-of-Care model across sites, there has been an emphasis on adherence to the key principles of the model and this has been the focus of evaluations (e.g. CMHS, 2001). However, these research efforts 'have not identified which principles need to be implemented, in what ways, and at what levels before gains in children's outcomes should be expected' (Cook & Kilmer, 2004: 665). There are also significant problems in the conceptualisation and measurement of key Systems-of-Care constructs, such as 'individualised care' (Bickman et al., 1999).

Strengths and limitations of Systems-of-Care in the context of child welfare

Strengths	<ul style="list-style-type: none"> • The core principles – child centred, family focused, community based and culturally competent – leading to improved interagency working.
Limitations	<ul style="list-style-type: none"> • Adherence to core principles. • Appears to be a greater focus on effecting change at the organisational level, with little evidence of improved outcomes for children and families. • Variation and diversity in characteristics of children and young people, community and contextual factors.

6. Overall conclusions and future directions

This final section of the review outlines the major findings, identifies key issues that need to be considered in the translation of these services and interventions to the Australian context, and outlines innovative approaches and areas for future research.

6.1 Summary of key findings

In general, it appears that there are benefits to children and young people with high needs from each of the services and interventions examined in this review.

Therapeutic foster care (TFC) appears to be most successful for boys and children under the age of 14 with less severe emotional and behavioural problems. The setting of boundaries and limited exposure to negative peer influence, the relative 'fit' between the TFC parent and child, and positive mentoring influence seem to facilitate the best outcomes. For young people with serious emotional disturbance and behavioural problems, residential care is considered to have potential in offering a range of therapeutic interventions (including attachment and trauma therapy) to young people regarded as 'difficult to treat' but who have often been victims of abuse and neglect. Multi-systemic therapy (MST) aims to keep adolescents who are 'at risk' in their homes by focusing on and reducing antisocial behaviour and promoting positive peer influence.

This review has also highlighted the need for effective systems of coordination and integration of services for children and young people with high needs. Case management, particularly intensive case management, has been found to be a 'promising' intervention for coordinating and facilitating service delivery. Wraparound, similarly, is a 'promising' intervention that provides more focused attention on the way in which service delivery is planned. The US Systems-of-Care model is an ambitious attempt to coordinate service components for the children and young people with high needs. It encompasses mechanisms, arrangements and structures to ensure that services are provided in an integrated way.

6.1.1 Common elements underpinning interventions and approaches to service coordination

The services and interventions that have been examined in Sections 2, 3 and 4 of this review, as well as approaches to service coordination and integration discussed in Section 5, all share a number of common elements.

Theoretical and conceptual basis

Either implicitly or explicitly, these services and interventions draw on well-established theoretical frameworks of attachment, social learning and behavioural theories, systems theory and ecological approaches. TFC, MST, Wraparound and Systems-of-Care, in particular, draw on these theories to identify the characteristics of the target group, program design and desired outcomes for children, young people, families and communities.

Emphasis on the multiple needs of children, young people and their families

In general, there is recognition of the multiple needs of children and young people and their families and a concerted approach to bringing together services and supports to address these multiple needs. This is accompanied by an increasing emphasis on an individualised approach to services and therapies and an emerging focus on the strengths and resources of young people and their families.

Service delivery

Effective service delivery relies on:

- Well-trained, skilled staff who are well supported
- Active involvement of the family and community, including maintaining community connections for children and young people, and
- Provision of transitional and follow-on or after-care services.

In practice, however, many programs and services are struggling to adhere to these common elements and, despite a long history in the US, much of this work is still under development.

6.1.2 Factors influencing outcomes

Common outcomes reported for children and young people receiving the services and interventions examined in this review were improved social, emotional, psychological and behavioural functioning, improved school performance, and reductions in the number of days and level of restrictiveness of placement. A number of enabling or hindering factors influencing or mediating these outcomes were related to the characteristics of the child and young person (including previous adverse experiences and placement history), family (including quality of interaction and care), peer group, school, community and neighbourhood environments.

What appears to be most strongly related to positive outcomes is the quality and length of the relationship between those being cared for and those providing care. This would suggest or confirm that other more fundamental elements of the caring relationship and perception of level of support may be important factors influencing levels of effectiveness of services other than, for example, child characteristics such as age, race and IQ. There appears to be increasing research interest in this area, focusing on the role of relationships in affecting outcomes.

At a broader systems level, expected outcomes include the establishment of new and improved systems and partnerships, improvements in accessibility, quality and quantity of services and communication between services, and ultimate improvements in child and family outcomes.

6.1.3 Evidence of effectiveness of services and interventions

Overall, the evidence base for the services and interventions outlined in this review is limited. Where research has been undertaken, studies have identified a number of methodological limitations. While some controlled studies indicate efficacy of the interventions, some studies have concluded that little is known about which components of the interventions work for whom, and at what levels they are required in order to impact on outcomes for the child and young person and their parents (Cook, 2004; Delfabbro et al., 2005b; Little, 2005).

In addition, little is known about the degree to which service provision affects other family members beyond the target young person (Cook & Kilmer, 2004). Yet there is evidence of positive outcomes for some children and young people in some domains, and this provides a basis to build upon this knowledge (Delfabbro et al., 2005b). Based on the positive outcomes presented in this review, there is reason to consider that the services (or components/elements) reviewed might have a place in the care of some children and young people with high needs in the Australian context.

6.2 Key issues arising from this review

This section identifies key common issues that have arisen from this review, including attention to the trauma these children and young people have experienced, an increased focus on relationship-based practice, and participation of children and young people in service planning and delivery. Attention to these issues is more likely to strengthen the common elements or principles on which these services are based.

6.2.1 Expanding focus on attachment and trauma

The services and interventions outlined in this review are, in general, designed to respond to the behaviour of the child or young person. However, their behaviour may be a manifestation of victimisation (of abuse or neglect), deprivation or exposure to violence, and other forms of trauma (Abramovitz & Bloom, 2003). In addition, adolescence can be a time of emotional turmoil, mood lability, introspection, heightened sensitivity, rebellion and behavioural experimentation (Blackman, 1995). In this context, family members are usually under pressure or stress within the familial environment, or from external factors or influences.

An understanding of both the cause of maladaptive behaviour and the most appropriate response to this behaviour will guide a more therapeutic approach to the care of children, young people and their families. This approach requires an integrated use of individual, group, milieu and family therapy, with an overarching emphasis on safety. This, in turn, has implications for service users and providers in terms of utilising more holistic, social developmental, ecological, grief and loss, attachment-focused and trauma-based interventions. An Australian program, Take Two, for example, is an innovative approach informing trauma-based interventions for children and young people with high needs (see Section 6.3).

6.2.2 Major assumptions underlying program design and fidelity

Service availability

The services and interventions outlined in this review rely on external, natural and community services and supports to children, young people and families with high needs. There is an assumption that support services do exist and are available and best fit the recipients' needs and strengths (Child Welfare League of America, 2005). A focus on individualised care may be compromised when existing external services do not match the young person's and family's needs, or, more problematically, if they do not exist at all.

Resources of the family and community

Each of the services examined in this review emphasises the use by young people and their families of natural supports within the family, extended family, neighbourhood and community. Yet there is a number of barriers to family and community participation which can impact on service effectiveness:

- Not all high-risk families have a caring social network or one with adequate resources.
- Some parents may harbour concerns about disclosing stigmatising situations to kin or other informal associates and, therefore, avoid seeking their help in coping with such problems.
- Some family members may be disinclined to participate in informal helping relationships and may perceive others as unresponsive to their needs (Cox, 2005).
- Stressors for parents interact with factors pertinent to parent and child to increase stress (Vig et al., 2005).

- Stigmatisation and disempowerment (on the part of parents/families) can impact on perception of service provision and effectiveness.
- The family's capacity to access and remain connected to the treatment protocol over time may be limited (Carr & Semel, 2004).

The triple threat of disadvantage, single-parent status and stress, as well as concrete obstacles of time, transportation, child care and competing priorities, are also determining factors in service use and commitment to service principles (Carr & Semel, 2004). Recognition of these barriers to service utilisation or program participation points to the need for an approach which can support children, families and communities.

6.2.3 A lack of focus on community-level factors

Cook and Kilmer (2004) point out that societal outcomes for children and families will be affected by community and contextual factors. However, research has tended to focus primarily upon clinical treatments and service delivery methods/factors, and neglected to consider the broader set of community factors in influencing outcomes.

Neighbourhood disadvantage or deprivation has been found to be associated with physical, learning and behavioural outcomes, as well as social and emotional outcomes, for children and young people with social and emotional outcomes impacting more on boys than girls (Edwards, 2005). Results from the Longitudinal Study of Australian Children (Sanson et al., 2002) have shown that socioeconomic status (income inequality), racial/ethnic diversity (impacting capacity of residents to engage) and residential stability (time to build relationships) all impact on children's well-being. In particular, concentrated disadvantage, physical and social disorder, and low neighbourhood cohesion are associated with greater physical distress.

6.2.4 Gaining the perspectives and participation of children

Few studies have examined the perspectives of the young person in care or strategies that encourage their participation in decision-making. Children's and young peoples' perceptions or definitions of 'successful' outcomes for themselves and their parents or their family may vary considerably in the context of behavioural, emotional or psychological problems and expectations.

The perspective of the young person in care may differ from those of caseworkers, service providers, parents/family, researchers and others involved in the evaluation process. For example, families and human service 'professionals' may hold different views regarding the causes of the young person's 'problems' and the 'success' of outcomes of service (Allen & Petr, 1998; Johnson et al., 2000; Malsiak, 1998, cited in Walker & Schutte, 2004).

There are, however, difficulties associated with gaining the perspective and participation of the child or young person in care, such as the likelihood of them withholding information, particularly if they feel disclosure will have a negative effect on their placement (Delfabbro, Taplin & Bentham, 2002; Mason, Urquhart & Bolzan, 2003).

6.2.5 Peer interaction – a positive or negative influence

There is an essential theoretical difference between TFC and models of residential care in relation to the way that peer interaction is viewed. The review of TFC highlighted isolation from deviant peers as one of the key program components believed to lead to positive outcomes for young people (Leve & Chamberlain, 2005). In contrast, in residential care, peer interactions can be viewed as a potentially positive component of the therapeutic environment, or at least as a factor that may mediate outcomes for children and young people, not all of which will be negative.

A recent study by Mager, Milich, Harris and Howard (2005) examined the impact of group composition on behavioural outcomes for children receiving an intervention for conduct problems. Children with conduct disorders were placed in either mixed groups (i.e. with children who did not have a conduct problem) or in groups comprised of only children with conduct problems. Surprisingly, the mixed group was observed to be less positive in terms of peer interactions and more likely to reinforce inappropriate behaviour.

Hartup (2005) suggests that, as yet, we do not have a good understanding of the impact of peer interactions or the group effect on outcomes for children and young people. A better understanding of peer influences will depend on learning more about the reciprocities between peers and how these influence behaviours.

6.2.6 A need to focus on the relationship with the child or young person

Establishing positive relationships between the child or young person and the residential staff, therapeutic foster carer and case manager appears to be a key program element of these services and interventions. Smith et al., (2001) consider that the match between the foster carer and the young person is one of the most important predictors of outcomes in TFC (as in all forms of foster care).

Findings of a recent meta-analysis of the therapeutic relationship between a therapist and child or young person provide support for the argument that the therapeutic relationship is an important process factor or variable that influences treatment outcomes (Shirk & Karver, 2003). Therefore, it is noteworthy that very few studies have examined the relationship that develops between staff or carers and the children and young people in their care and how this impacts on outcomes.

6.3 Innovative approaches and future research potential

New models and approaches towards therapeutic environments for children and young people with high needs (e.g. the Sanctuary model and Stop-gap model in the US, and Turnaround and Take Two in Australia) are indicative of a shift from care settings that focus intently on behaviour management to settings incorporating a more therapeutic model of care which promotes a safe and supportive environment for children and young people within which to heal psychological and social trauma experiences.

These innovative approaches in the US and Australia are indicative of the need to understand and address the underlying problems associated with trauma and attachment that manifest in behaviours that bring 'difficult to serve' young people to the attention of government and non-government services.

It is also important to note the developments occurring in training and support of foster carers. For example, the Community Alternative Placement Scheme (CAPS) in Scotland (Walker, Hill & Triseliotis, 2002, 2002a) and Project Keep in California are providing increased levels of training, support and supervision for regular foster carers, with the purpose of reducing the behavioural and emotional problems seen in children in OOHC.

6.3.1 The Sanctuary model of residential care

The Sanctuary model represents a trauma-informed model for creating or changing an organisational culture in order to more effectively provide a cohesive context within which healing from psychologically and socially traumatic experience can be addressed. It aims to create change for therapeutic communities, such as:

- increase in perceived sense of community/cohesiveness
- democratic decision-making and shared responsibility in problem-solving
- reduction in critical incidents and use of physical restraints,

and for young people, such as:

- reduction in traumatic stress symptoms
- increase in level of self esteem
- greater internal locus of control
- greater utilisation of social network
- improvement in decision-making and problem-solving skills
- decrease in aggressive behaviour (Bloom, 2005).

This model was piloted in 2001 in four 'residential units' in the US, using a comparison group design. Preliminary findings showed that staff and young people became more aware of their interdependence as community members, young people began to develop more empathy for one another and for staff, there was a decrease in antagonistic coping mechanisms, and a greater sense of internal control developed. A growing awareness and understanding of trauma theories gave staff more understanding of the often-confusing behaviours of young people that staff dealt with on a daily basis (Rivard et al., 2005).

6.3.2 Stop-gap model of residential care

Stop-gap is an intensive approach currently being trialled in the US. It is an innovative, emerging service designed to redefine the role of residential treatment centres to offer short-term, intensive approaches to therapy and support for the child and young person with serious emotional and behavioural problems within a system of care. It incorporates evidence-based practices intended to have an immediate and positive impact on behaviours that keep children and young people with high needs in the most restrictive environments. It proposes to interrupt the young person's downward spiral of increasingly disruptive behaviour, and simultaneously to prepare the environment for the young person's timely reintegration (McCurdy & McIntyre, 2004).

There are three key elements of the program:

1. Environment-based intervention, which aims to:
 - create an environment in which the intensity of behaviour is immediately reduced to a level that facilitates movement of the individual towards community-based treatment
 - provide intensive skill teaching, focused on teaching adaptive alternate behaviours, in an attempt to maintain lower levels of problem behaviour over time; strategies used include the token economy, academic intervention and support, social skills training, problem-solving and anger management skills training.

2. Intensive interventions when problem behaviours do not improve or intensify. These intensive interventions are more targeted, employing functional behavioural assessment and behaviour support plans.
3. After care-related interventions on entry to the program which aim to prepare the young person and family for success in a community-based placement and the maintenance and generalisation of acquired skills. After-care-related interventions comprise intensive case management, behaviour parent training and community integration (McCurdy & McIntyre, 2004).

To date, the Stop-gap model has not been evaluated, but the concept of disrupting the downward spiral of maladaptive responses may prove to be an effective approach for children and young people with serious emotional and behavioural problems in the Australian context.

Innovative approaches which focus on therapeutic interventions are also developing in Australia, including Turnaround and Take Two.

6.3.3 Turnaround

Turnaround was established in response to a review of intensive youth support services in the Australian Capital Territory (ACT Office for Children and Family Support, 2002). Its aim is to improve services and outcomes for young people with high and complex needs aged between 12 and 18 years.

Turnaround clients typically have:

- a significant history of early childhood trauma
- involvement with statutory services (including care and protection and/or youth justice)
- multiple personal issues (including mental health, drug and alcohol, offending behaviours and homelessness)
- families with multiple issues (including family violence and criminal behaviour)
- an average of seven different services involved with them.

The Turnaround team consists of a team leader and case coordinators. Each young person in the program identifies the people and agencies to be part of their 'support team'. This approach actively involves young people and their natural supports in all planning and decision-making (ACT Office for Children and Family Support, 2002).

To date, Turnaround has not been evaluated. It does, however, appear to show promise as an effective service which operates from a strengths-based philosophy and a 'no reject, no eject' policy.

6.3.4 Take Two

Take Two is an intensive therapeutic service operating in Victoria for children who have suffered trauma and disrupted attachment due to severe abuse and neglect and who are at risk of or already demonstrating behavioural or emotional disturbance (Berry Street Victoria, 2006).

Those eligible for the Take Two service include children and young people who:

- have suffered from substantiated abandonment, lack of care, physical harm, sexual abuse, developmental or medical harm as defined by Victorian law
- are living at home or in any form of OOHC
- may or may not be on a Children's Court order.

Each referred child is assessed for the trauma they have suffered and their coping capacities. The stresses and resources of their family and others who care for them are also assessed. Treatment planning is collaborative among all parties, and is designed to assist each child directly, as well as many of the adults who care for the child.

Take Two provides a safe and therapeutic environment for children and young people. Within the context of secure and attentive relationships with therapists and others who care for these children and young people, complex emotional and behavioural issues are addressed. The program also employs the only Aboriginal psychiatric nurse in Victoria, to ensure its services for Aboriginal children and young people are culturally sensitive and competent. Evaluation is occurring concurrently.

In summary, these innovative approaches recognise the need to address the underlying problems experienced by children and young people that manifest in behaviours which attract the attention of government and non-government agencies.

6.4 Potential questions for further research

Given the limited knowledge about children and young people with high needs in the Australian context, a concerted research effort is needed. Both short-term and longitudinal research designs could address the following key questions.

6.4.1 Characteristics of children, young people and their carers

- What are the characteristics of children and young people with high needs in OOHC in NSW?
- How do these children and young people compare with a matched sample of children in OOHC receiving standard and medium-level care in OOHC in NSW?
- What are the characteristics of the intensive foster carers and the intensive foster care home environments?

6.4.2 Participation

- What are the views/perspectives of children and young people with high needs?
- What is the level of parent and family involvement/participation in case planning and service provision for children and young people with high needs?

6.4.3 Service delivery

- What services and interventions are received by children and young people with high needs? How do these vary between agencies and regions?
- What models and services work for Indigenous children and young people with high needs?
- How effective is intensive foster care in improving outcomes for children and young people with high needs? How do outcomes compare to those children with high needs placed in residential care? Specific questions here could include:
 - o What is the impact of intensive foster care on social and emotional wellbeing?
 - o What is the behaviour change in young people after six and 12 months in intensive foster care?
 - o What are the outcomes of young people exiting intensive foster care?

- What aspects of the relationship between those being cared for and the carers lead to positive outcomes?
- How effective are Wraparound services for children and young people with high needs?
- What are the most effective models of case management and integrated service delivery?
- What are the experiences of staff who work with children and young people with high needs?

6.5 Conclusion

In general, there are benefits to children and young people with high needs from each of the services and interventions examined in this review. However, the level of evidence for effectiveness of the services and interventions reviewed makes it difficult to draw definitive conclusions about which services (or components of services), and at what levels are, or might be, effective in achieving positive outcomes for which children and young people.

The research evidence for these services has focused on clinical outcomes and treatments, and on multiple factors that influence or mediate those outcomes. In order to further develop these services, and to determine what works for which children and young people and in what context, there needs to be more attention directed towards therapeutic approaches and the influences of family relationships, peer group interaction, neighbourhood and community.

If these services are to be translated to the Australian context, it will be important to study both their efficacy (in a controlled environment) and their effectiveness (in the real world) to determine the suitability of interventions for this context. In addition, integrated delivery at a system or organisational level is required in order to address the multiple and co-occurring needs of these children and young people.

References

- Abramovitz, R. & Bloom, S. L. (2003). Creating sanctuary in residential treatment for youth: From the 'well-ordered asylum' to a 'living-learning environment'. *The Psychiatric Quarterly*, 74(2), 119-135.
- ACT Office for Children & Family Support. *Turnaround Program*. Retrieved February 2006 from www.dhcs.act.gov.au/ocfyfs/Turnaround%20Program/default.htm
- AIHW. (2005). *Child Protection Australia 2003-04*. Catalogue No. CWS 24. Canberra: Australian Institute of Health and Welfare (Child Welfare Series no 36).
- Allen, R. I. & Petr, C. G. (1998). Rethinking family-centered practice. *American Journal of Orthopsychiatry*, 68(1), 4-15.
- Altshuler, S. J. & Poertner, J. (2002). The Child Health and Illness Profile – Adolescent Edition: Assessing well-being in group homes or institutions. *Child Welfare*, 59(3), 495-513.
- American Psychological Association. (1994). *Diagnostic Statistical Manual: 4th edition*. Washington, DC, USA: APA.
- Andersson G. (1999). Children in Residential and Foster Care – a Swedish Example. *International Journal of Social Welfare* 8(4), 253-267.
- Anderson, J. A., Wright, E. R., Kooreman, H. E., Mohr, W. K. & Russell, L. A. (2003). The Dawn Project: A model for responding to the needs of children with emotional and behavioral challenges and their families. *Community Mental Health Journal*, 39(1), 63-74.
- Anglin, J. P. (2002a). *Pain, normality, and the struggle for congruence: reinterpreting residential care for children and youth*. Binghamton, NY: Haworth Press Inc.
- Anglin, J. P. (2002b). Risk, well-being, and paramouncy in child protection: The need for transformation. *Child & Youth Care Forum*, 31(4), 257-268.
- Anglin, J. P. (2004). Creating 'well-functioning' residential care and defining its place in a system of care. *Child & Youth Care Forum*, 33(3), 175-192.
- Anglin, J. P. & Knorth, E. J. (2004). Competing declarations on residential care for children and youth-Stockholm versus Malmö. *Child & Youth Care Forum*, 33(3), 141-149.
- Baker, A. J. L. & Curtis, P. A. (2006). Prior placements of youth admitted to therapeutic foster care and residential treatment centers: The Odyssey Project Population. *Child and Adolescent Social Work Journal* 23(1), 38-60.
- Baker, C. & Mitchell, F. (2004). Providing a secure base in long-term foster care. *Child & Family Social Work*, 9(4), 371-372.
- Barber, J. & Delfabbro, P. (2004). *Children in foster care: A two-year tracking study of children referred for foster placement in the Australian State of South Australia*. London, UK: Routledge.
- Barter, C. (2003). *Abuse of children in residential care*. NSPCC Inform. Retrieved August 2006 from www.nspcc.org.uk/Inform.
- Barth, R. P. (2002). *Institutions vs foster homes: The empirical base for a century of action*. Chapel Hill, USA: Jordan Institute for Families, University of North Carolina.
- Barth, R. P. (2006). *Supporting the development of foster child and carer relationships*. Paper presented at the NSW Department of Community Services, August 17, 2006, Sydney.
- Barth, R. P., Webster, D. & Lee, S. (2002). Adoption of American Indian children: Implications for implementing the Indian child welfare and adoption and safe families acts. *Children & Youth Services Review*, 24(3), 139-158.
- Bates, B. C., English, D. J. & Kouidou-Giles, S. (1997). Residential treatment and its alternatives: A review of the literature. *Child & Youth Care Forum*, 26(1), 7-51.

- Bath, H. (2001). *The role and future of residential care in out-of-home care*. Paper presented at the 'Finding a Place' Forum, Community Services Commission and Association of Children's Welfare Agencies, October 17, Sydney.
- Berrick, J. D., Barth, R. P., Needell, B. & Jonson-Reid, M. (1997). Group care and young children. *Social Service Review*, June, 257-273.
- Berrick, J. D., Courtney, M. & Barth, R. P. (1993). Specialized foster care and group home care: Similarities and differences in the characteristics of children in care. *Children and Youth Services Review*, 15(6), 453-473.
- Berry Street Victoria (2006). *Take Two*. Retrieved July 2006, from www.berrystreet.org.au/services_taketwo.htm
- Bertalanffy, L. (1968). *General system theory: Foundations, development, applications*. New York, USA: George Braziller.
- Bickman, L. (1996). A continuum of care: More is not always better. *American Psychologist*, 51, 689-701.
- Bickman, L., Foster, E. M. & Lambert, E. W. (1996). Who gets hospitalized in a continuum of care? *Journal of the American Academy of Child and Adolescent Psychiatry*, 35(1), 74-80.
- Bickman, L., Noser, K. & Summerfelt, W. T. (1999). Long-term effects of a system of care on children and adolescents. *Journal of Behavioral Health Services & Research*, 26(2), 185-202.
- Bickman, L., Smith, C. M., Lambert, E. W. & Andrade, A. R. (2003). Evaluation of a congressionally mandated Wraparound demonstration. *Journal of Child & Family Studies*, 12(2), 135.
- Biglan, A., Brennan, P. A., Foster, S. L. & Holder, H. D. (2004). *Helping adolescents at risk: Prevention of multiple problem behaviors*. New York, USA: Guilford Press.
- Blackman, M. (1995). You asked about ... adolescent depression. *The Canadian Journal of CME*, May 1995, 5.
- Blackman, M., Eustace, J. & Chowdhury, T. (1991). Adolescent residential treatment: A one to three year follow-up. *Canadian Journal of Psychiatry*, 36(7), 472-479.
- Bloom, S. L. (2005). Creating sanctuary for kids: Helping children to heal from violence. *Therapeutic Community, The International Journal for Therapeutic and Supportive Organizations*, Spring.
- Borduin, C. M., Henggeler, S. W., Blaske, D. M. & Stein, R. J. (1990). Multisystemic treatment of adolescent sexual offenders. *International Journal of Offender Therapy and Comparative Criminology*, 34(2), 105-113.
- Borduin, C. M., Mann, B. J., Cone, L. T., Henggeler, S. W., Fucci, B. R., Blaske, D. M. & Williams, R. A. (1995). Multisystemic treatment of serious juvenile offenders: Long-term prevention of criminality and violence. *Journal of Consulting and Clinical Psychology*, 63(4), 569-578.
- Borduin, C. M. & Schaeffer, C. M. (2001). Multisystemic treatment of juvenile sexual offenders: A progress report. *Journal of Psychology & Human Sexuality*, 13(3), 25-42.
- Bowlby, J. (1951). Maternal care and mental health. *Bulletin of the World Health Organization*, 3(3), 355-533.
- Brestan, E. V., Eyberg, S. M. & England, M. J. (1998). Effective psychosocial treatments of conduct-disordered children and adolescents: 29 years, 82 studies, and 5272 kids. *Journal of Clinical Child Psychology*, 27(2), 180.
- Bromfield, L. M., Higgins, D., Osborn, A., Panozzo, S. & Richardson, N. (2005). *Out of home care in Australia: Messages from research*. Melbourne, Vic: Australian Institute of Family Studies, for the Community Services Ministers' Advisory Council, commissioned by the Australian Government Department of Family and Community Services.
- Bronfenbrenner, U. (1979). Contexts of child rearing: Problems and prospects. *American Psychologist*, 34(10), 844-850.

- Brunk, M., Henggeler, S. W. & Whelan, J. P. (1987). Comparison of multisystemic therapy and parent training in the brief treatment of child abuse and neglect. *Journal of Consulting and Clinical Psychology*, 55(2), 171-178.
- Bruns, E. J. (2004). *The Evidence Base and Wraparound (formerly 'The Evidence Base on Wraparound')*. Paper presented at the 11th Annual Building on Family Strengths Conference, 7 May, Portland, Oregon, USA.
- Bruns, E. J., Burchard, J. D., Suter, J., Force, M. M. & Dakan, E. (2003). *Fidelity to the Wraparound process and its association with outcomes*. Paper presented at The 15th Annual Research Conference Proceedings: A System of Care for Children's Mental Health, Tampa: University of South Florida, Florida Mental Health Institute Research and Training Center for Children's Mental Health.
- Bruns, E. J., Suter, J. & Burchard, J. D. (2002). *Pilot test of the Wraparound Fidelity Index 2.0*. Paper presented at the the 14th Annual Research Conference Proceedings. A system of care for children's mental health: Expanding the research base, Tampa, FL, USA: University of South Florida, The Louis de la Parte Florida Mental Health Institute, Research and Training Center for Children's Mental Health.
- Bruns, E. J., Suter, J. C., Burchard, J. D. & Leverentz-Brady, K. (2004). *A national portrait of Wraparound implementation: Findings from the Wraparound fidelity index*. Paper presented at the 16th Annual Research Conference Proceedings. A System of Care for Children's Mental Health: Expanding the Research Base, 2-3 March 2003, Tampa, FL, USA.
- Bruns, E. J. & Walker, J. S. (2000). Roles for youth in Systems-of-Care. *Focal point: A National Bulletin on Family Support and Children's Mental Health*, 14(2), 3-4.
- Bryant, B. & Snodgrass, R. D. (1992). Foster family care applications with special populations: People Places, Inc. *Community Alternatives: International Journal of Family Care*, 4(2), 1-25.
- Budde, S., Mayer, S., Zinn, A., Lippold, M., Avrushin, A., Bromberg, A. et al (2004). *Residential care in Illinois: Trends and alternatives*. Chicago, USA: Chapin Hall Centre for Children, University of Chicago.
- Buist, M., & Whyte, B. (2004). *International evidence to Scotland's Children's Hearings Review: Decision making and services relating to children and young people involved in offending*. Report. Criminal Justice Social Work Development Centre for Scotland.
- Bullock, R., Little, M. & Millham, S. (1993). *Residential Care for Children: A Review of the Research*. London, HMSO.
- Bullock R (2000). Juvenile offending: treatment in residential settings. In C. R. Hollin (Ed.), *Handbook of offender assessment and treatment* (pp. 537-550). Chichester: John Wiley & Sons.
- Burchard, J. D., Bruns, E. J., & Burchard, S. N. (2002). The wraparound approach. In B. J. Burns & K. Hoagwood (Eds.), *Community treatment for youth: Evidence-based interventions for severe emotional and behavioral disorders* (pp. 69-90). New York: Oxford University Press.
- Burchard, J. D. & Clarke, R. T. (1990). The role of individualized care in a service delivery system for children and adolescents with severely maladjusted behavior. *Journal of Mental Health Administration*, 17(1), 48-60.
- Burns, B. J. (2002). Reasons for hope for children and families: A perspective and overview. In B. J. Burns & K. Hoagwood (Eds.), *Community Treatment for Youth: Evidence-Based Treatment for Severe Emotional and Behavioral Disorders*. Oxford, UK: Oxford University Press.
- Burns, B. J., Farmer, E. M. Z., Angold, A., Costello, E. J. & Behar, L. (1996). A randomized trial of case management for youths with serious emotional disturbance. *Journal of Clinical Child Psychology*, 25(4), 476-486.
- Burns, B. J. & Goldman, S. K. (1999). Promising practices in Wraparound for children with serious emotional disturbance and their families. *Systems-of-Care: Promising practices in children's mental health, 1998 series, Volume IV* (pp. 144). Washington DC: Center for Effective Collaboration and Practice, American Institutes for Research.

- Burns, B. J., Hoagwood, K. & Mrazek, P. J. (1999). Effective treatment for mental disorders in children and adolescents. *Clinical Child & Family Psychology Review*, 2(4), 199-254.
- Burns, B. J., Schoenwald, S. K., Burchard, J. D., Faw, L. & Santos, A. B. (2000). Comprehensive community-based interventions for youth with severe emotional disorders: Multisystemic therapy and the Wraparound process. *Journal of Child & Family Studies*, 9(3), 283-314.
- Cameron, G. & Karabanow, J. (2003). The nature and effectiveness of program models for adolescents at risk of entering the formal child protection system. *Child Welfare*, 82(4), 443-474.
- Carr, E. & Semel, M. (2004). *Predictors of efficacy in Wraparound care with severely psychiatrically disturbed adolescents*. Paper presented at the Georgetown Institute Conference, San Francisco, CA, USA.
- Chaffin, M. & Friedrich, B. (2004). Evidence-based treatments in child abuse and neglect. *Children & Youth Services Review*, 26(11), 1097-1113.
- Chamberlain, P. (1990). Comparative evaluation of specialized foster care for seriously delinquent youths: A first step. *Community Alternatives: International Journal of Family Care*, 2(2), 21-36.
- Chamberlain, P. (1996). Community-based residential treatment for adolescents with conduct disorder. In T. H. Ollendick & R. J. Prinz (Eds.), *Advances in clinical child psychology, Vol. 18*. (pp. 63-90), Plenum Press, New York, USA.
- Chamberlain, P. (2000). Multidimensional Treatment Foster Care: A program for intensive parenting, family support, and skill building. *Journal of Emotional & Behavioral Disorders*, 8(3), 1063-4266.
- Chamberlain, P. (2003). The Oregon Multidimensional Treatment Foster Care Model: Features, outcomes, and progress in dissemination. *Cognitive and Behavioral Practice*, 10(4), 303-312.
- Chamberlain, P. & Moore, K. (1998). A clinical model for parenting juvenile offenders: A comparison of group care versus family care. *Clinical Child Psychology & Psychiatry*, 3(3), 375-386.
- Chamberlain, P. & Reid, J. B. (1991). Using a specialized foster care community treatment model for children and adolescents leaving the State Mental Hospital. *Journal of Community Psychology*, 19(3), 266-276.
- Chamberlain, P. & Reid, J. B. (1994). Differences in risk factors and adjustment for male and female delinquents in treatment foster care. *Journal of Child & Family Studies*, 3(1), 23-39.
- Chamberlain, P. & Reid, J. B. (1998). Comparison of two community alternatives to incarceration for chronic juvenile offenders. *Journal of Consulting and Clinical Psychology*, 66(4), 624-633.
- Chamberlain, P. & Weinrott, M. (1990). Specialized foster care: Treating seriously emotionally disturbed children. *Children Today*, 19(1), 24-27.
- Chorpita, B. F., Yim, L. M., Donkervoet, J. C., Arensdorf, A., Amundsen, M. J., McGee, C., et al (2002). Toward large-scale implementation of empirically supported treatments for children: A review and observations by the Hawaii Empirical Basis to Services Task Force. *Clinical Psychology: Science and Practice*, 9(2), 165-190.
- Clark Hewitt, B., Prange, M. E., Lee, B. & Boyd, L. A. (1994). Improving adjustment outcomes for foster children with emotional and behavioral disorders: Early findings from a controlled study on individualized services. *Journal of Emotional & Behavioral Disorders*, 2(4), 207-218.
- CMHS. (2001). *Annual Report To Congress on the Evaluation of the Comprehensive Community Mental Health Services for Children and Their Families Program, 2001*. Atlanta, GA: US Department of Health and Human Services.
- Community Affairs Reference Committee. (2004). *Forgotten Australians, A report on Australians who experienced institutional or out-of-home care as children*. The Senate, Parliament House, Canberra, Commonwealth of Australia.
- Connor, D. F., Miller, K. P., Cunningham, J. A. & Melloni, R. H. (2002). What does getting better mean? Child improvement and measure of outcome in residential treatment. *American Journal of Orthopsychiatry*, 72, 110-117.

- Cook, J. R. & Kilmer, R. P. (2004). Evaluating Systems-of-Care: Missing links in children's mental health research. *Journal of Community Psychology*, 32(6), 655-674.
- Cox, K. (2005). Examining the role of social network intervention as an integral component of community-based, family-focused practice. *Journal of Child & Family Studies*, 14(3), 443-454.
- Cross, T. P., Leavey, J., Mosley, P. R., White, A. W. & Andreas, J. B. (2004). Outcomes of specialized foster care in a managed child welfare services network, *Child Welfare* 83, 533-564.
- Cunningham, P. B., Henggeler, S. W., Brondino, M. J. & Pickrel, S. G. (1999). Testing underlying assumptions of the family empowerment perspective. *Journal of Child & Family Studies*, 8(4), 437-449.
- Curry, J. F. (1991). Outcome research on residential treatment: Implications and suggested directions. *The American Journal of Orthopsychiatry*, 61(3), 348-357.
- Curtis, N. M., Ronan, K. R. & Borduin, C. M. (2004). Multisystemic treatment: A meta-analysis of outcome studies. *Journal of Family Psychology*, 18(3), 411-419.
- Curtis, P. A., Alexander, G. & Lunghofer, L. A. (2001). A literature review comparing the outcomes of residential group care and therapeutic foster care. *Child & Adolescent Social Work Journal*, 18(5), 376-392.
- Child Welfare League of America (CWLA). (2005). *Position statement on residential services*. Washington, DC, USA: Child Welfare League of America, Inc.
- Delfabbro, P. & Osborn, A. (2005). Models of service for children in out-of-home care with significant emotional and behavioural difficulties. *Developing Practice*, 14(Summer), 17-29.
- Delfabbro, P., Osborn, A & Barber, J. (2005a). Beyond the continuum: New perspectives on the future of out-of-home care in Australia. *Children Australia*, 30(2), 11-18.
- Delfabbro, P., Osborn, A. & Barber, J. (2005b). *A review of treatment modalities for children with emotional and behavioural disorders in out-of-home care*. Unpublished manuscript.
- Delfabbro, P., Taplin, J. & Bentham, Y. (2002). Is it worthwhile?: Motivational factors and perceived difficulties of foster caring in South Australia, *Adoption & Fostering*, 26, 28-37.
- Dembo, R., Pacheco, K., Schmeidler, J., Ramirez-Garmica, G., Guida, J. & Rahman, A. (1998). A further study of gender differences in service needs among youths entering a Juvenile Assessment Centre. *Journal of Child and Adolescent Substance Abuse*, 7(4), 49-77.
- Department of Health UK. (2005). *Safeguarding Children* (Utting Report). London, UK Commission for Social Care Inspection.
- Department of Health and Family Services (DHFS). (1997). *National Practice Principles in SAAP Case Management*. Canberra, ACT: National Case Management Working Group.
- Devine, T. (2004). *A study of ways a residential group care facility can foster resilience in adolescents who have experienced cumulative adversities*. Unpublished doctoral dissertation, Fielding Graduate Institute.
- Dirks-Linhorst, P. A. (2004). *An evaluation of a family court diversion program for delinquent youth with chronic mental health needs*, Univ Microfilms International.
- Dishion, T. J., McCord, J. & Poulin, F. (1999). When interventions harm. Peer groups and problem behavior. *The American Psychologist*, 54(9), 755-764.
- Department of Community Services (DoCS). (2004). *Report of data and definitions used in out-of-home care*. Sydney, NSW: Strategic Services Directorate.
- Dore, M. M. & Eisner, E. (1993). Child-related dimensions of placement stability in treatment foster care, *Child & Adolescent Social Work Journal*, 10, 301-317.
- Eardley, T. & Thompson, M. (1997). Does care management help unemployed job seekers? *Social Policy Research Centre Reports and Proceedings No 132*, University of New South Wales, Sydney, Australia.

- Edwards, B. (2005). Does it take a village? An investigation of neighbourhood effects on Australian children's development. *Family Matters*, 72 (Summer), 36-43.
- Ellis, D. A., Naar-King, S., Frey, M., Templin, T., Rowland, M. D. & Greger, N. (2004). Use of multisystemic therapy to improve regimen adherence among adolescents with type 1 diabetes in poor metabolic control: A pilot investigation. *Journal of Clinical Psychology in Medical Settings*, 11(4), 315-324.
- Emond, R. (2003). Putting the care into residential care: The role of young people. *Journal of Social Work*, 3(3), 321-337.
- England, M. J. & Cole, R. F. (1992). Building Systems-of-Care for youth with serious mental illness. *Hospital & Community Psychiatry*, 43(6), 630-633.
- English, D. J. (1998). The extent and consequences of child maltreatment. *The Future of Children*, 8(1), 39-53.
- Evans, M. E. (1996). Family preservation services for children with emotional and behavioral disorders. In G. Pfeffer & D. K. Behera (Eds.), *Contemporary Society – Childhood and Complex Order*. New Delhi: Manak Publications.
- Evans, M. E. & Armstrong, M. I. (1994). Development and evaluation of treatment foster care and family-centered intensive case management in New York. *Journal of Emotional & Behavioral Disorders*, 2(4), 228.
- Evans, M. E. & Armstrong, M. I. (2002). What is case management? In B. J. Burns & K. Hoagwood (Eds.), *Community treatment for youth: Evidence-based interventions for severe emotional and behavioral disorders* (pp. 39-68). New York, USA: Oxford University Press.
- Evans, M. E., Boothroyd, R. A., Armstrong, M. I., Greenbaum, P. E., Brown, E. C. & Kuppinger, A. D. (2003). An experimental study of the effectiveness of intensive in-home crisis services for children and their families: Program outcomes. *Journal of Emotional and Behavioral Disorders*, 11(2), 93-104.
- Farmer, E. M. Z., Burns, B. J., Dubs, M. S. & Thompson, S. (2002). Assessing conformity to standards for treatment foster care. *Journal of Emotional & Behavioral Disorders*, 10(4), 213-222.
- Farmer, E. M. Z., Dorsey, S. & Mustillo, S. A. (2004). Intensive home and community interventions. *Child and Adolescent Psychiatric Clinics of North America*, 13(4), 857-884.
- Farmer, E. M. Z., Wagner, H. R., Burns, B. J. & Richards, J. T. (2003). Treatment foster care in a system of care: Sequences and correlates of residential placements. *Journal of Child & Family Studies*, 12(1), 11-24.
- Fasulo, S. J., Cross, T. P. & Mosley, P. R. (2002). Adolescent runaway behavior in specialized foster care. *Children and Youth Services Review*, 24(8), 623-640.
- Fisher, K. & Chamberlain, P. (2000). Multidimensional treatment foster care: A program for intensive parenting, family support, and skill building. *Journal of Emotional & Behavioral Disorders*, 8(3), 155.
- Fisher, K. & Fine, M. (2002). Care coordination, case management theory and the Coordinated Care Trials: Reconsidering the fundamentals. In *The Australian Coordinated Care Trials: Recollections of an Evaluation* (pp. 23-38). Canberra, ACT: Department of Health & Aged Care.
- Fisher, P. A., Burraston, B. & Pears, K. (2005). The early intervention foster care program: Permanent placement outcomes from a randomized trial. *Child Maltreatment*, 10(1), 61-71.
- Foster, E. M. (2001). Expenditures and sustainability in Systems-of-Care. *Journal of Emotional & Behavioral Disorders*, 9(1), 53-62.
- Franco, E., Soler, R. E. & McBride, M. (2005). Introducing and evaluating parent-child interaction therapy in a system of care. *Child and Adolescent Psychiatric Clinics of North America*, 14(2), 351.
- Franz, B. S. (2004). Predictors of behavioural and emotional problems of children placed in children's homes in Croatia. *Child & Family Social Work*, 9(3), 265-271.
- Frensch, K. M. & Cameron, G. (2002). Treatment of choice or a last resort? A review of residential mental health placements for children and youth. *Child & Youth Care Forum*, 31(5), 307-339.

- Freundlich, M. & Avery, R. J. (2005). Planning for permanency for youth in congregate care. *Children and Youth Services Review*, 27(2), 115-134.
- Friesen, B. J. & Winters, N. C. (2003). The role of outcomes in Systems-of-Care: Quality improvement and program evaluation. In A. J. Pumariega & N. C. Winters (Eds.), *The Handbook of Child and Adolescent Systems-of-Care: The New Community Psychiatry*. (pp. 459-486). Hoboken, NJ, USA: Jossey-Bass.
- Godley, M. D., Godley, S., Dennis, M. L., Funk, R. & Passetti, L. L. (2002). Preliminary outcomes from the assertive continuing care experiment for adolescents discharged from residential treatment. *Journal of Substance Abuse Treatment*, 23(1), 21-32.
- Goldfarb. (1945). Effects of psychological deprivation in infancy and subsequent stimulation. *American Journal of Psychiatry*, 102, 18-33.
- Guterman, N. B., Hodges, V. G., Blythe, B. J. & Bronson, D. E. (1989). Aftercare service development for children in residential treatment. *Child & Youth Care Quarterly*, 18(2), 119-130.
- Hahn, R. A., Bilukha, O., Lowy, J., Crosby, A., Fullilove, M. T., Liberman, A., et al (2005). The effectiveness of therapeutic foster care for the prevention of violence: A systematic review. *American Journal of Preventive Medicine*, 28(2 Suppl 1), 72-90.
- Hair, H. J. (2005). Outcomes for children and adolescents after residential treatment: A review of research from 1993 to 2003. *Journal of Child & Family Studies*, 14(4), 551-575.
- Hamner, K. M., Lambert, E. W. & Bickman, L. (1997). Children's mental health in a continuum of care: Clinical outcomes at 18 months for the Fort Bragg demonstration. *Journal of Mental Health Administration*, 24(4), 465-471.
- Handwerk, M. L., Field, C. E. & Friman, P. C. (2000). The iatrogenic effects of group intervention for antisocial youth: Premature extrapolations? *Journal of Behavioral Education*, 10(4), 223-238.
- Hartup, W. W. (2005). Peer interaction: What causes what? *Journal of Abnormal Child Psychology*, 33(3), 387-394.
- Hawkins, R. P., Meadowcroft, P., Trout, B. A. & Luster, W. C. (1985). Foster family-based treatment. *Journal of Clinical Child Psychology*, 14(3), 220-229.
- Hazell, P. L., Tarren-Sweeney, M., Vimpani, G. V., Keatinge, D. & Callan, K. (2002). Children with disruptive behaviours II: Clinical and community service needs. *Journal of Paediatrics and Child Health*, 38(1), 32-40.
- Hedrick, T. E., Bickman, L. & Rog, D. J. (1993). *Applied Research Design: A Practical Guide*. (Applied Social Research Methods Series: 32). Newbury Park: Sage.
- Henggeler, S. W. (1982). *Delinquency & adolescent psychopathology: A family-ecological systems approach*. Boston, USA: John Wright.
- Henggeler, S. W. (1999). Multisystemic therapy: An overview of clinical procedures, outcomes, and policy implications. *Child & Adolescent Mental Health*, 4(1), 2-10.
- Henggeler, S. W., Melton, G. B., Brondino, M. J., Scherer, D. G. & Hanley, J. H. (1997). Multisystemic therapy with violent and chronic juvenile offenders and their families: The role of treatment fidelity in successful dissemination. *Journal of Consulting and Clinical Psychology*, 65(5), 821-833.
- Henggeler, S. W., Melton, G. B. & Smith, L. A. (1992). Family preservation using multisystemic therapy: An effective alternative to incarcerating serious juvenile offenders. *Journal of Consulting and Clinical Psychology*, 60(6), 953-961.
- Henggeler, S. W. & Pickrel, S. G. (1999). Multisystemic treatment of substance-abusing and-dependent delinquents: Outcomes, treatment fidelity, and transportability. *Mental Health Services Research*, 1(3), 171-184.
- Henggeler, S. W., Pickrel, S. G., Brondino, M. J. & Crouch, J. L. (1996). Eliminating (almost) treatment dropout of substance abusing or dependent delinquents through home-based multisystemic therapy. *American Journal of Psychiatry*, 153(3), 427-428.

- Henggeler, S. W., Rodick, J. D., Borduin, C. M., Hanson, C. L., Watson, S. M. & Urey, J. R. (1986). Multisystemic treatment of juvenile offenders: Effects on adolescent behavior and family interaction. *Developmental Psychology*, 22(1), 132-141.
- Henggeler, S. W., Rowland, M. D., Randall, J., Ward, D. M., Pickrel, S. G., Cunningham, P. B., et al (1999). Home-based multisystemic therapy as an alternative to the hospitalization of youths in psychiatric crisis: Clinical outcomes. *Journal of the American Academy of Child & Adolescent Psychiatry*, 38(11), 1331-1339.
- Henggeler, S.W., Schoenwald, S.K., Swenson, C.C. & Borduin, C.M. (2006). Methodological critique and meta-analysis as Trojan horse. *Children and Youth Services Review*, 28(4), 447-457.
- Henggeler, S. W. & Schoenwald, S. K. (1998). *Multisystemic therapy supervisory manual: Promoting quality assurance at the clinical level*. Rockville, MD, USA: National Institute of Justice.
- Henggeler, S. W., Schoenwald, S. K., Borduin, C. M., Rowland, M. D. & Cunningham, P. B. (1998). *Multisystemic treatment of antisocial behavior in children & adolescents* (Report No. 1-57230-106-6). New York, USA: Guilford Press.
- Henggeler, S. W. & Sheidow, A. J. (2003). Conduct disorder and delinquency. *Journal of Marital and Family Therapy*, 29(4), 505-522.
- Hillan, L. (2005). *Reclaiming residential care: A positive choice for children and young people in care*. Acton, ACT: The Winston Churchill Memorial Trust of Australia.
- Hoagwood, K. & Cunningham, M. (1992). Outcomes of children with emotional disturbance in residential treatment for educational purposes. *Journal of Child and Family Studies*, 1(2), 129-140.
- Hodges, J. L. & Tizard, B. (1989). Social and family relationships of ex-institutional adolescents. *Journal of Child Psychology & Psychiatry*, 30(1), 77-97.
- Holden, E. W. & Brannan, A. M. (2002). Special issue: Evaluating Systems-of-Care: The Comprehensive Community Mental Health Services for Children and Their Families Program, *Children's Services: Social Policy, Research & Practice*, 5, 1-74.
- Holden, E. W., Friedman, R. M. & Santiago, R. L. (2001). Overview of the national evaluation of the Comprehensive Community Mental Health Services for Children and Their Families Program. *Journal of Emotional & Behavioral Disorders*, 9, 4-12.
- Holden, E. W., Santiago, R. L., Manteuffel, B. A., Stephens, R. L., Brannan, A. M., Soler, R. E., et al (2003). Systems-of-Care demonstration projects: Innovation, evaluation, and sustainability. In A. J. Pumariega & N. C. Winters (Eds), *The handbook of child and adolescent Systems-of-Care: The new community psychiatry* (pp. 432-458). San Francisco, CA, USA: Jossey-Bass.
- Howell, J. C., Kelly, M. R., Palmer, J. & Mangum, R. L. (2004). Integrating child welfare, juvenile justice, and other agencies in a continuum of services. *Child Welfare*, 83(2), 143-156.
- Hudson, J., Nutter, R. W. & Galaway, B. (1994). Treatment foster care programs: A review of evaluation research and suggested directions. *Social Work Research*, 18(4), 198-210.
- Huey, S. J. J., Henggeler, S. W., Rowland, M. D., Halliday-Boykins, C. A., Cunningham, P. B., Pickrel, S. G. & Edwards, J. E. (2004). Multisystemic therapy effects on attempted suicide by youths presenting psychiatric emergencies. *Journal of the American Academy of Child & Adolescent Psychiatry*, 43(2), 183-190.
- Hussey, D. L. & Guo, S. (2005). Characteristics and trajectories of treatment foster care youth. *Child Welfare*, 84(4), 485-560.
- Jackson-Walker, S., Wall, J.R. & Minnich, H.M. (2003). *IARCCA Outcome Project special report: An analysis of outcome measures for children in residential care, transitional living, and foster care*. Indianapolis, IN: IARCCA.
- Jacobson, D. & Cervine, D. (2001). A magic growth formula for mental health services in Santa Cruz County. In M. Hernandez & S. Hodges (Eds.), *Developing Outcome Strategies in Children's Mental Health* (pp. 115-136). Baltimore, MD, USA: Paul H. Brookes Publishing.

- James, S. & Meezan, W. (2002). Refining the evaluation of treatment foster care, *Families in Society: The Journal of Contemporary Human Services*, 83, pp. 233-244.
- Jivanjee, P. (1999). Parent perspectives on family involvement in therapeutic foster care. *Journal of Child & Family Studies*, 8(4), 451-461.
- Johnson, Z., Molloy, B., Scallan, E., Fitzpatrick, P., Rooney, B., Keegan, T. & Byrne, P. (2000). Community Mothers Programme – Seven year follow-up of a randomised controlled trial of non-professional intervention in parenting. *Journal of Public Health Medicine*, 3, 337-342.
- Kashani, J. H., Jones, M. R., Bumby, K. M. & Thomas, L. A. (1999). Youth violence: Psychosocial risk factors, treatment, prevention, and recommendations. *Journal of Emotional & Behavioral Disorders*, 7(4), 200-211.
- Kazdin, A. E. (2004). Evidence-based treatments: challenges and priorities for practice and research. *Child & Adolescent Psychiatric Clinics of North America*, 13(4), 923-940.
- Kendrick, A. (1995). The integration of child care services in Scotland. *Children and Youth Services Review*, 17(5-6), 619-635.
- Knitzer, J. (1982). *Unclaimed children: The failure of public responsibility to children and adolescents in need of mental health services*. Washington, DC, USA: The Children's Defense Fund.
- Kutash, K. & Rivera, V. R. (1996). *What works in children's mental health services? Uncovering answers to critical questions*. Baltimore, MD, USA: Paul H Brookes Publishing Co.
- Landsman, M. J., Groza, V., Tyler, M. & Malone, K. (2001). Outcomes of family-centered residential treatment. *Child Welfare League of America*, 53(3), 351-379.
- Larzelere, R. E., Dinges, K., Schmidt, M. D., Spellman, D. F., Criste, T. R. & Connell, P. (2001). Outcomes of residential treatment: A study of the adolescent clients of Girls and Boys Town. *Child & Youth Care Forum*, 30(3), 175-185.
- Leschied, A. W. & Cunningham, A. M. A. (2002). *Seeking effective interventions for serious young offenders: Interim results of a four-year randomized study of multisystemic therapy in Ontario, Canada*. London, Canada: Centre for Children and Families in the Justice System, London Family Court Clinic Inc.
- Leve, L. D. & Chamberlain, P. (2005). Association with delinquent peers: Intervention effects for youth in the juvenile justice system. *Journal of Abnormal Child Psychology*, 33(3), 339.
- Lewis, W. W. (1982). Ecological factors in successful residential treatment. *Behavioral Disorders*, 7(3), 149-156.
- Liao, Q. (2001). Describing the population of adolescents served in Systems-of-Care. *Journal of Emotional & Behavioral Disorders*, 9(1), 13.
- Littell, J. H. (2005). Lessons from a systematic review of effects of multisystemic therapy. *Children and Youth Services Review*, 27(4), 445-463.
- Little, M., Kohm, A. & Thompson, R. (2005). The impact of residential placement on child development: Research and policy implications. *International Journal of Social Welfare*, 14(3), 200-209.
- Loeber, R. & Farrington, D. P. (2001). Young children who commit crime: Epidemiology, developmental origins, risk factors, early interventions, and policy implications. *Development & Psychopathology*, 12, 737-762.
- Lourie, I. S. (2003). A history of community child mental health. In A. Pumariega & N. C. Winters (Eds.), *The Handbook of Child and Adolescent Systems-of-Care: The New Community Psychiatry* (pp. 1-16). San Francisco, CA, USA: Jossey-Bass.
- Lyons, J. S. & Rawal, P. H. (2005). Evidence-based treatments for children and adolescents. In C. E. Stout & R. A. Hayes (Eds.), *The Evidence-Based Practice: Methods, Models, and Tools for Mental Health Professionals* (pp. 177-198). Hoboken, NJ, USA: John Wiley & Sons, Inc.
- Lyons, J. S., Terry, P., Martinovich, Z., Peterson, J. & Bouska, B. (2001). Outcome trajectories for adolescents in residential treatment: A statewide evaluation. *Journal of Child & Family Studies*, 10(3), 333-345.

- Macdonald, G. M. (2003). *Using systematic reviews to improve social care*. London, UK: Social Care Institute for Excellence.
- Mager, W., Milich, R., Harris, M. J. & Howard, A. (2005). Intervention groups for adolescents with conduct problems: Is aggregation harmful or helpful? *Journal of Abnormal Child Psychology*, 33(3), 349-362.
- Malmo Declaration. (1990). Geneva, Switzerland: International Federation of Educative Communities.
- Malysiak, R. (1998). Deciphering the tower of Babel: Examining the theory base for wraparound fidelity. *Journal of Child and Family Studies*, 7, 11-25.
- Marks, M. B. & Lawson, H. A. (2005). Co-production dynamics and time dollar programs in community-based child welfare initiatives for hard-to-serve youth and families. *Child Welfare*, 84(2), 209-232.
- Mason, J., Urquhart, R. & Bolzan, N. (2003). Defining children's needs in out-of-home care: Methods and challenges of a collaborative research project. *Children Australia*, 28(2), 32-37.
- Massinga, R. & Pecora, P. J. (2004). Providing better opportunities for older children in the child welfare system. *The Future of Children*, 14(1), 150-173.
- McCurdy, B. L. & McIntyre, E. K. (2004). 'And what about residential...?'™ Re-conceptualizing residential treatment as a stop-gap service for youth with emotional and behavioral disorders. *Behavioral Interventions*, 19(3), 137-158.
- Meadowcroft, P. & Thomlison, B. (1994). Treatment foster care services: A research agenda for child welfare. *Child Welfare*, 73(5), 565-581.
- Morton, J., Clark, R. & Pead, J. (1999). When care is not enough: A review of intensive therapeutic and residential service options for young people in out-of-home care who manifest severe emotional and behavioural disturbance and have suffered serious abuse or neglect in early childhood. Victoria, Australia: Department of Human Services.
- Munger, R. (1998). *The ecology of troubled children: Changing children's behavior by changing the places, activities, and people in their lives*. Cambridge, MA, USA: Brookline Books.
- Muscat, A., Baron, A. M., Baron, Y. M. & Spencer, N. (2001). The care and health needs of children in residential care in the Maltese Islands. *Child: Care, Health & Development*, 27, 251-262.
- Nisbet, I., Rombouts, S. & Smallbone, S. (2005). *Impacts of programs for adolescents who sexually offend: Literature review*. Sydney, NSW: Jointly commissioned by Research, Funding & Business Analysis Division and Child Protection & Early Intervention Directorate, and NSW Department of Community Services.
- Ogden, T. & Halliday-Boykins, C. A. (2004). Multisystemic treatment of antisocial adolescents in Norway: Replication of clinical outcomes outside of the US. *Child & Adolescent Mental Health*, 9(2), 77-83.
- Osborn, A. & Delfabbro, P. H. (2006). *National comparative study of children and young people with high support needs in Australian Out-of-Home Care*. Final Report. Adelaide, South Australia: University of Adelaide.
- Pandiani, J., Banks, S. M. & Schacht, L. M. (2001). Caseload segregation/integration and service delivery outcomes for children and adolescents. *Journal of Emotional & Behavioral Disorders*, 9(4), 232.
- Pecora, P. J., Fraser, M. W. & Haapala, D. A. (1992). Intensive home-based family preservation services: An update from the FIT project. *Child Welfare*, 71(2), 177-188.
- Pecora, P. J., Whittaker, J. K., Maluccio, A. N. & Barth, R. P. (2000). *The Child Welfare Challenge*. New York, USA: Aldine De Gruyter.
- Provence, S. & Lipton R. (1962). *Infants in Institutions*. New York, USA: International Universities Press.
- Rast, J. & Bruns, E. J. (2003). Ensuring fidelity to the Wraparound process. *Focal Point, Fall 03*, 21-24.
- Rauktis, M. B., Doucett, A., Vides de Andrade, R., McDonough, L. & Reinhart, S. (2005). Examining how alliance develops in treatment foster care. *Focus*, 2(Spring), pp.2-12.

- Reddy, L. A. & Pfeiffer, S. I. (1997). Effectiveness of treatment foster care with children and adolescents: A review of outcome studies. *Journal of the American Academy of Child and Adolescent Psychiatry*, 36(5), 581-588.
- Rivard, J. C., Bloom, S. L., Abramovitz, R., Pasquale, L. E., Duncan, M., McCorkle, D. & Gelman, A. (2003). Assessing the implementation and effects of a trauma-focused intervention for youths in residential treatment. *Psychiatric Quarterly*, 74(2), 137-154.
- Rivard, J. C., Bloom, S. L., McCorkle, D. & Abramovitz, R. (2005). Preliminary results of a study examining the implementation and effects of a trauma recovery framework for youths in residential treatment. *The International Journal for Therapeutic and Supportive Organizations*, 26(1), 83-96.
- Rosenblatt, A. & Rosenblatt, J. A. (2000). Demographic, clinical, and functional characteristics of youth enrolled in six California Systems-of-Care. *Journal of Child & Family Studies*, 9, 51-66.
- Rosenblatt, A. & Woodbridge, M. W. (2003). Deconstructing research on Systems-of-Care for youth with EBD: Frameworks for policy research. *Journal of Emotional & Behavioral Disorders*, 11(1), 27.
- Rosenblatt, J. A. (1998). *Preliminary outcomes in a system of care for youths with EBD: An examination of differential change across clinical profiles*. Univ Microfilms International.
- Rowland, M. D., Halliday-Boykins, C. A., Henggeler, S. W., Cunningham, P. B., Lee, T. G., Kruesi, M. J. P. & Shapiro, S. B. (2005). A randomized trial of multisystemic therapy with Hawaii's Felix Class Youths. *Journal of Emotional & Behavioral Disorders*, 13(1), 13-23.
- Sanson, A., Nicholson, J., Ungerer, J., Zubrick, S., Wilson, K., Ainley, J., et al (2002). *Introducing the Longitudinal Study of Australian Children. LSAC Discussion Paper No.1* (Discussion Paper). Melbourne: Australian Institute of Family Studies.
- Schaedle, R. W. & Epstein, I. (2000). Specifying intensive case management: A multiple perspective approach. *Mental Health Services Research*, 2(2), 95-105.
- Schoenwald, S. K., Brown, T. L. & Henggeler, S. W. (2000). Inside multisystemic therapy: Therapist, supervisory, and program practices. *Journal of Emotional & Behavioral Disorders*, 8(2), 113-127.
- Schoenwald, S. K. & Hoagwood, K. (2001). Effectiveness, transportability, and dissemination of interventions: what matters when? *Psychiatric Services*, 52(9), 1190-1197.
- Schoenwald, S. K., Ward, D. M., Henggeler, S. W. & Rowland, M. D. (2000). Multisystemic therapy versus hospitalization for crisis stabilization of youth: Placement outcomes 4 months postreferral. *Mental Health Services Research*, 2(1), 3-12.
- Scott, T. M. & Eber, L. (2003). Functional assessment and Wraparound as systemic school processes: Primary, secondary, and tertiary systems examples. *Journal of Positive Behavior Interventions*, 5(3), 131.
- Sheidow, A. J., Bradford, W. D., Henggeler, S. W., Rowland, M. D., Halliday-Boykins, C. A., Schoenwald, S. K. & Ward, D. M. (2004). Treatment costs for youths receiving multisystemic therapy or hospitalization after a psychiatric crisis. *Psychiatric Services*, 55(5), 548-554.
- Shirk, S. R. & Karver, M. (2003). Prediction of treatment outcome from relationship variables in child and adolescent therapy: A meta-analytic review. *Journal of Consulting and Clinical Psychology*, 71(3), 452-464.
- Silver, S. E., Duchnowski, A. J., Kutash, K., Friedman, R. M., Eisen, M., Prange, M. E., et al., (1992). A comparison of children with serious emotional disturbance served in residential and school settings. *Journal of Child and Family Studies*, 1(1), 43-59.
- Sinclair, I. & Gibbs, I. (1998). *Children's homes: A study in diversity*. New York, USA: John Wiley and Sons.
- Smith, D. K. (2004). Risk, reinforcement, retention in treatment, and reoffending for boys and girls in multidimensional treatment foster care. *Journal of Emotional & Behavioral Disorders*, 12(1), 38-48.
- Smith, D. K., Stormshak, E., Chamberlain, P. & Whaley, R. B. (2001). Placement disruption in treatment foster care. *Journal of Emotional & Behavioral Disorders*, 9(3), 200-206.

- Spitz, R. (1965). *The first year of life: A psychoanalytic study of normal and deviant development of object relations*. Guilford, CT, USA: International Universities Press, Inc.
- Staff, I. & Fein, E. (1995). Stability and change: Initial findings in a study of treatment foster care placements. *Children and Youth Services Review*, 17(3), 379-389.
- Stathis, S. & Martin, G. (2004). A transdisciplinary approach to adolescent forensic mental health. *Australian and New Zealand Journal of Psychiatry*, 38(9), 746-752.
- Stephens, R. L., Holden, E. W. & Hernandez, M. (2004). System-of-care practice review scores as predictors of behavioral symptomatology and functional impairment. *Journal of Child & Family Studies*, 13(2), 179-191.
- Streiner, D. L. (2002). The 2 'es' of research: Efficacy and effectiveness trials. *Canadian Journal of Psychiatry*, 47(6), 52-57.
- Stroul, B. A. & Friedman, M. J. (2003). Systems-of-Care: A framework for children's mental health care. In A. Pumariega & N. C. Winters (Eds.), *The Handbook of Child and Adolescent Systems-of-Care: The New Community Psychiatry* (pp. 17-34). San Francisco, CA, USA: Jossey-Bass.
- Stroul, B. A. & Friedman, R. M. (1986). *A system of care for children and youth with severe emotional disturbances (Revised edition)*. Washington, DC, USA: Georgetown University Child Development Center (CASSP), Technical Assistance Center.
- Stroul, B. A. & Friedman, R. M. (1994). *A System of Care for Children and Youth with Severe Emotional Disturbances*. Washington DC, USA: CASSP Technical Assistance Center, Center for Child Health and Mental Health Policy, Georgetown University Child Development Center. 176.
- Stroul, B. A. & Friedman, R. M. (1996). The system of care concept and philosophy. In B. Stroul (Ed.), *Children's Mental Health: Creating Systems-of-Care in a Changing Society* (pp. 591-612). Baltimore, MD: Paul H. Brookes.
- Taplin, S. (2005). *Is all contact between children in care and their birth parents 'good' contact?* Sydney: NSW Department of Community Services.
- Tarren-Sweeney, M. & Hazell, P. (2006). Mental health of children in foster and kinship care in New South Wales, Australia. *Journal of Paediatrics and Child Health*, 42(3), 89-97.
- Taylor, D. A. & Alpert, S. W. (1973). *Continuity and support following residential treatment*. Washington DC, USA: Child Welfare League of America.
- Tizard, B. & Hodges, J. L. (1978). The effect of early institutional rearing on the development of eight year old children. *Journal of Child Psychology and Psychiatry*, 19(2), 99-118.
- Tizard, B. & Rees, J. (1975). The effect of early institutional rearing on the behaviour problems and affectional relationships of four-year-old children. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, 16(1), 61-73.
- Toffalo, D. A. D. (2000). An investigation of treatment integrity and outcomes in Wraparound services. *Journal of Child & Family Studies*, 9(3), 351-361.
- Tomison, A. M. & Stanley, J. (2001). *Alternative care: Models of support for younger children with challenging behaviours and/or in juvenile justice*. Adelaide, SA, Australia: South Australian Department of Human Services.
- VanDenBerg, J. (1993). Integration of individualized mental health services into the system of care for children and adolescents. *Administration and Policy in Mental Health*, 20(4), pp. 247-257.
- VanDenBerg, J., Bruns, E. J. & Burchard, J. D. (2003). History of the Wraparound process. *Focal Point: A National Journal on Family Support & Children's Mental Health*, 17, 4-7.
- Vig, S., Chinitz, S. & Shulman, L. (2005). Young children in foster care: Multiple vulnerabilities and complex service needs. *Infants & Young Children: An Interdisciplinary Journal of Special Care Practices*, 18(2), 147-160.

- Vorrath, H. H. & Brendtro, L. K. (1985). *Positive peer culture (2nd Ed)*. New York, USA: Aldine.
- Wagner, G. (1988). *Residential care: A positive choice*. Independent review into residential care (Wagner Committee). London: HMSO.
- Walker, J. S. & Schutte, K. M. (2004). Practice and process in Wraparound teamwork. *Journal of Emotional & Behavioral Disorders*, 12(3), 182-192.
- Walker, M., Hill, M. & Triseliotis, J. (2002). *Fostering and secure care: An evaluation of the community alternative placement scheme (CAPS)*. Glasgow, Scotland: The Glasgow Centre for the Child & Society.
- Walker, M., Hill, M. & Triseliotis, J. (2002a). Testing the limits of foster care: Fostering as an alternative to secure accommodation. London: BAAF Adoption & Fostering.
- Walrath, C. M., Mandell, D. S. & Leaf, P. J. (2001). Responses of children with different intake profiles to mental health treatment. *Psychiatric Services: A Journal of the American Psychiatric Association*, 52(2), 196-201.
- Walter, U. M., Swaim, T. & Petr, C. G. (2003). *Best practices in therapeutic foster care: A review of national literature and local practices in the State of Kansas*. Manhattan, Kansas, USA: University of Kansas.
- Wandersman, A. & Florin, P. (2003). Community interventions and effective prevention. *American Psychologist*, 58(6/7), 441-448.
- Weiner, A. & Kupermintz, H. (2001). Facing adulthood alone: The long-term impact of family break-up and infant institutions, a longitudinal study. *British Journal of Social Work*, 31(2), 213-234.
- Wells, K. (1991). Eagerly awaiting a home: Severely emotionally disturbed youth lost in our Systems-of-Care: A personal reflection. *Child & Youth Care Forum*, 20(1), 7-17.
- Wells, K., Farmer, E. M. Z., Richards, J. T. & Burns, B. J. (2004). The experience of being a treatment foster mother. *Qualitative Social Work: Research and Practice*, 3(2), 117-138.
- Whittaker, J. K. (2000). Reinventing residential childcare: an agenda for research and practice. *Residential Treatment for Children & Youth*, 17, 13-30.
- Whittaker, J. K. & Maluccio, A. N. (1988). Understanding the families of children in foster and residential care. In E. W. Nunnally & C. S. Chilman (Eds.), *Troubled relationships* (pp. 192-204). Thousand Oaks, CA, USA: Sage Publications, Inc.
- Winters, N. C. & Terrell, E. (2003). Case management: The linchpin of community-based Systems-of-Care. In A. Pumariega & N. C. Winters (Eds.), *The Handbook of Child & Adolescent Systems-of-Care: The New Community Psychiatry* (pp. 547). San Francisco, USA: Jossey-Bass.
- Wolkind. (1974). Sex differences in the aetiology of antisocial disorders in children in long term residential care. *British Journal of Psychiatry*, 125, 125-30.
- Yampolskaya, S., Paulson, R. I., Armstrong, M. I., Jordan, N. & Vargo, A. C. (2004). Child welfare privatization: Quantitative indicators and policy issues. *Evaluation Review*, 28(2), 87-103.
- Yoe, J. T., Santarcangelo, S., Atkins, M. & Burchard, J. D. (1996). Wraparound care in Vermont: Program development, implementation, and evaluation of a statewide system of individualized services. *Journal of Child and Family Studies*, 5(1), 23-37.
- Youngleson, M. L. (1973). The need to affiliate and self-esteem in institutionalized children. *Journal of Personality & Social Psychology*, 26(2), 280-286.
- Zeanah, C. H., Smyke, A. T., Koga, S. F. & Carlson, E. (2005). Attachment in institutionalized and community children in Romania. *Child Development*, 76(5), 1015-1028.

