Published in final edited form as:
*Child Youth Serv Rev*. 2011 February ; 33(2): 308–321. doi:10.1016/j.childyouth.2010.09.014.

# What Works in Group Care? – A Structured Review of Treatment Models for Group Homes and Residential Care

**Sigrid James**

## Abstract

This paper presents findings from a structured review of treatment models that are relevant to group care and residential treatment settings for children involved with the child welfare system. Initiated and guided by The California Evidence-Based Clearinghouse for Child Welfare, five treatment models – Positive Peer Culture, Teaching Family Model, Sanctuary Model, Stop-Gap Model, and Re-ED – were reviewed for effectiveness. In this paper, each model s treatment features are described and relevant outcome studies reviewed in terms of their effectiveness as well as relevance for child welfare practice. Findings indicate that four of the models are either supported or promising in terms of evidence for effectiveness. Implications for group care practice and research are discussed.

## Introduction

Group care is a very broad term that encompasses many different forms of residentially-based placement and treatment services provided to children and youth with a wide range of needs. It is a placement option or service at the intersect of the three major child serving systems - child welfare, mental health and juvenile justice – describing “a continuum of programs from substance abuse treatment centers to locked units for sexual offenders to family-style residential group homes, and occasionally even residential schools…or therapeutic boarding schools” (Lee, 2008). Clear operational distinctions between different group care settings do not exist in the research literature (Curtis, Alexander, & Lunghofer, 2001; Lee, 2008), leading to the aggregation of diverse programs under one umbrella term as if group care were a monolithic construct. Yet, group care differs along a range of dimensions, including function, target population, length of stay, level of restrictiveness, and treatment approach (Butler & McPherson, 2007; Lee, 2008).

Group care has a long and often debated history in child welfare practice. It is theoretically intended as a placement of last resort, and as a response to characteristics or psychosocial problems that cannot be addressed in less restrictive family-based settings (Barth, 2002). Since the emergence of a growing number of alternative family- and home-based treatment options, group care has increasingly fallen into disrepute. Concerns are manifold. Group care is very costly with limited scientific evidence for its effectiveness. It is also an intervention that ideologically departs from system of care emphasis on community-based care in the least restrictive setting (Stroul & Friedman, 1986). Concerns further revolve around reliance on shift staff with often inadequate training and high turnover rates, issues of safety and potential for abuse as well as negative peer processes (e.g., Burns, Hoagwood

& Mrazek, 1999; Dishion, McCord & Poulin, 1999). Group care treatment cannot be found on any list of evidence-based treatments for youth with serious emotional and behavioral problems (NREPP [SAMHSA], 2009). Instead, it has sometimes been cited as a treatment that may potentially have adverse effects (Barth, 2005; Overcamp-Martini & Nutton, 2009). Nonetheless, placement into group care settings remains a common occurrence for some youth, particularly for youth with extended stays in out-of-home care for whom alternative family- or home-based treatment options are less available (McCurdy & McIntyre, 2004). As such, it remains an integral part of the continuum of services for a sizable proportion of children in out-of-home care (Butler & McPherson, 2007), and questions about the effectiveness and outcomes of services provided through group care settings are highly relevant.

## The Effectiveness and Outcomes of Group Care

The outcome literature on group care is scant, and current knowledge about its effect on targeted outcomes is mostly based on studies with small nonrepresentative samples, and weak study designs, lacking control groups and standardized measures (Bean, White & Lake, 2005; Bettmann & Jasperson, 2009; Hair, 2005). Existing studies, relying mostly on pre-experimental designs, have measured outcome in terms of symptom reduction (Lyons, Terry, Martinovich, Peterson & Bouska, 2001; Weis, Wilson & Whitemarsh, 2005), behavioral and socio-emotional functioning (Larzelere et al., 2001; Leichtman, Leichtman, Barber & Neese, 2001; Lyons & Schaefer, 2000; Mann-Feder, 1996; Weis et al., 2005), and academic success (Hooper et al. 2000; Thompson et al., 1996). In general, youths who have less severe dysfunction, greater capacity for interpersonal relationships and acute rather than chronic onset of problems tend to have better outcomes (Landsman, Groza, Tyler & Malone, 2001; Wilmshurst, 2002). Involvement of families in treatment during group care placement, availability of after-care services as well as shorter lengths of stay in group care further mitigate outcome and have been associated with a better prognosis or outcome (Hoagwood & Cunningham, 1993; Larzelere et al., 2001). Predictors of poor outcome include co-morbid substance use disorder, a history of physical or sexual abuse and early onset of persistent conduct problems and delinquency (Peterson & Scanlan, 2002).

While findings from pre-post or nonequivalent comparison group studies point to improvements in functioning following group care placement, a final verdict on the outcomes associated with group care cannot be rendered without carefully selected comparison groups to address threats to internal validity. A handful of studies have compared the outcomes of group care to those associated with home- or community-based interventions (Barth, Greeson, Guo & Green, 2007; Breland-Noble et al., 2004; Breland-Noble et al., 2005; Chamberlain & Reid, 1998; James, Roesch & Zhang, under review; Lee & Thompson, 2008). One of the main challenges is to address the baseline differences that are inherent to the placement of children along the continuum of services and that may not be random. A few studies have addressed this issue via design or through statistical methods. Findings from these studies have been mixed. A few studies found more favorable outcomes for youth receiving community-based treatments (Breland-Noble et al., 2004; 2005). Two studies found no differences in outcome after adjusting for initial baseline differences (Barth et al., 2007; James et al., under review). Contrary to these studies, Lee and Thompson (2008) found that group care youth compared to youth in treatment foster care were more likely to be favorably discharged, more likely to return home, and less likely to experience subsequent placement in the first 6 months following discharge. Authors cautioned not to generalize results to other group care settings given the unique characteristics of the Boys Town residential campus.

A limitation of much of the existing research is the treatment of group care as a uniform construct. With few exceptions (e.g., Lee & Thomas, 2008; Thompson et al., 1996), most studies do not report on specific group care models, and provide limited information on the type of group care received by the study population.

## Purpose of Current Review

The current paper responds to this limitation by presenting the findings of a structured review initiated and guided by the California Evidence-Based Clearinghouse for Child Welfare on prevalent group care treatment models relevant to children in the child welfare system. There are several reasons for this particular focus.

First, a considerable proportion of children in group care settings come from the child welfare system. Currently, close to 80,000 children and youth under the supervision of child welfare systems are placed in group care and residential treatment settings (USDHHS, 2008) This represents an estimated 16 percent of the current foster care population. Secondly, despite similar background characteristics among youth from different service systems, children involved with the child welfare system also have unique characteristics and challenges. Children in foster care have high rates of mental health problems stemming from histories of abuse and/or neglect, familial dysfunction, and experiences of separation (e.g., Burns et al., 2004; McMillen et al., 2004). While foster children have been shown to be high users of specialty mental health services (McMillen et al., 2005), family- or home/based treatment alternatives to group care may be less available to them given removal from their biological family. This places them at particularly high risk for group home placement (McCurdy & McIntyre, 2004; McMillen et al., 2004). Thirdly, about 10 to 15 percent of the foster care population experiences considerable placement instability (Wulczyn et al., 2003). Frequent placement moves along with older age and a higher rate of emotional and behavioral problems have been consistently correlated with a greater likelihood of placement into group care (e.g., James et el., 2006). Finally, the field of child welfare has progressed more slowly than either mental health or juvenile justice in building an evidence-based knowledge base; as such it is a stated mandate of the California Evidence-Based Clearinghouse for Child Welfare (CEBC) to advance the knowledge base in child welfare.

## Methods

### The California Evidence-Based Clearinghouse for Child Welfare

The California Evidence-Based Clearinghouse for Child Welfare (CEBC) was created through a collaborative effort between the California Department of Social Services, Chadwick Center for Children and Families (Rady Children s Hospital, San Diego) and Child and Adolescent Services Research Center. The CEBC is meant as a tool for identifying, selecting and implementing evidence-based child welfare practices in order to improve the safety, permanency and well-being of children and families in the care of the child welfare system. While recognizing a special responsibility to child welfare practice in California, the CEBC provides information that may be useful for any child welfare system (www.cebc4cw.org).

### Review Procedures

The CEBC uses a standardized review process, which involves a statewide Advisory Committee, a Scientific Panel consisting of leading national child welfare researchers, and Topic Experts. One of the topics of interest that had been identified involved higher level placement. While higher level placement may also involve settings such as treatment foster care and inpatient psychiatric care, the current review was only focused on group care. The review took place in 2008, and since then has been updated. A team of child welfare experts

identified primary treatment models relevant to residential care. The available published and peer-reviewed literature was searched, using the following databases: Campbell and Cochrane Collaboratives, National Child Welfare Clearinghouse, PubMed, Psych Info, Google, Google Scholar, and NREPP. Next, outcome studies were reviewed by the Topic Expert and rated on an effectiveness scale with five categories ranging from well-supported effective practice to concerning practice. Table 1 specifies both criteria for rating as well as the types of studies considered in the rating process. Dissertations, descriptive articles about a treatment model or program, and reports to funders were not part of the review. Only peer-reviewed literature was included in the final rating process. The classification system uses criteria regarding a practice s clinical and/or empirical support, documentation, acceptance within the field, and potential for harm. A lower score indicates a greater level of support for the practice protocol. In 2008, a not rated category was added for programs that are generally accepted as clinical practice, do not seem to present a substantial risk to those receiving it, but lack literature that would provide evidence of a benefit. Given the focus on child welfare practice, the CEBC further evaluates each model s relevance to child welfare populations and child welfare outcomes in the area of permanency, safety and child/family well-being.

The search process yielded information on five models relevant to group care: Positive Peer Culture, Teaching Family Model, Sanctuary Model, Re-Ed, and the Stop-Gap Model. The features of these models will be briefly summarized and the evidence for the models effectiveness discussed. An overview of each model s features and the relevant outcome literature can be found in Tables 2 and 3, respectively.

## Model 1 - Positive Peer Culture

**Overview—**The Positive Peer Culture (PPC) treatment model was developed by Vorrath and Brendtro (1985) in response to the failure of conventional treatment approaches to effectively deal with negative peer pressure among troubled youth. It is grounded in theories of social psychology and argues that social context is a powerful determinant of thoughts and behaviors. As such, PPC aims to transform a negative peer context into a positive peer culture, in which adult authority is deemphasized. Group norms that reinforce mutual responsibility, prosocial attitudes and social concern are fostered through the development of trust and respect. The model assumes that as youth become more committed to caring for others, hurtful behaviors are replaced by prosocial and responsible behaviors, and self-worth is increased. Some of the behaviors and attitudes that are fostered include:

- A sense of belonging
- A code of conduct that assures a safe environment and promotes pro-social behavior
- Individual members responding positively to the influences of the community
- A sense the each member can make a significant positive contribution to the community
- Positive reinforcement of social responsibility to the community
- Censure of maladaptive and anti-social behavior

**Treatment features—**PPC has four essential treatment components: (1) *Building Group Responsibility*: group members learn to keep one another out of trouble; (2) The importance of the *Group Meeting*: The group meeting serves as the problem-solving arena in which youth are able to help one of their peers in a safe environment; meetings are structured and involve problem reporting, problem solving, group leader s summary, etc. A distinct

problem list is used in the program to ensure a universal language; (3) *Service Learning*: Youth are engaged in multiple community projects, developed to reinforce the value of helping others; many projects are conducted along side adult service clubs. Youth are taught that community service is an expected part of community living, not a punishment for misbehavior. In the context of a PPC program, service learning is not simply a program component but a life-style of community responsibility and action; (4) *Teamwork Primacy:* a highly successful program management model which assumes that "teamwork" is the highest administrative priority. Staff teams are organized around distinct groups of children.

PPC was designed for group settings, and has been applied in residential settings, outpatient facilities and schools. PPC is generally delivered in groups of 8 to 12 youth in 90-minute structured group meetings, which ideally occur five times per week over a six to nine month period. PPC does not have a parent component. PPC is manualized, and training is available in the form of classroom training and program immersion. It has been acknowledged that the successful implementation of PPC has been a challenge due to a lack of attention given to quality control (Quigley, 2003). Adequate training of staff is an essential component to successfully guide the group process (Moody & Lupton-Smith, 1999; Vorrath & Brendtro, 1985).

**Evidence for effectiveness—**Evaluative studies of PPC that have appeared in the peer-reviewed published literature are very limited, but include one randomized (Leeman, Gibbs & Fuller, 1993) and one quasi-experimental study (Nas, Brugman & Koops, 2005) within the context of a residential treatment facility. In addition, one quasi-experimental study (Sherer, 1985) evaluated the effectiveness of PPC with "street-corner gangs." It needs to be noted that both the Leeman et al. and Nas et al. studies were conducted on an adaptation of the PPC program, namely the EQUIP program. EQUIP combines elements of PPC, moral discussion groups and social skills training (Gibbs, Potter, Barriga & Liau, 1996). Measured outcomes include moral judgment, cognitive distortions, behavior problems, social skills and self-concept as well as recidivism. All studies were conducted with delinquent youth. Leeman et al. s (1993) experimental study reported significant gains in institutional conduct and social skills in the experimental group relative to the control group; they also reported a 50 percent reduction in recidivism after six months, and a one-third reduction at 1-year follow-up. In the quasi-experimental study by Nas et al. (2005), significant reductions in some cognitive distortions and also in covert antisocial behavior were noted. However, this study did not find significant differences in moral judgment and social skills, overt antisocial behavior or the cognitive distortion of "assuming the worst" between treatment and comparison group. Similarly, the 1985 Sherer study reported improvements on resistance to temptation and moral development in the PPC group, but no differences in other areas (e.g., confession). The limited outcome literature suggests that PPC can be effective with delinquent youth in residential facilities with regard to some outcomes, such as improved self-concept and recidivism. However, there are also concerns about PPC. A case-control study by Ryan (2006) cautioned that PPC may not be the most effective strategy for youth in the juvenile justice system that had experienced maltreatment. Kapp (2000) conducted qualitative interviews with youth who went through PPC programs and were highly critical of the group process. Based on established CEBC criteria, PPC is considered to be "supported by research evidence" (Level 2). With regard to relevance to child welfare practice received a medium (2) rating. Outcomes focused on child and family well-being.

### Teaching Family Model

**Overview—**Of all group home models, the Teaching-Family Model (TFM) is probably the most described and researched model in the literature (Phillips, Phillips, Fixsen & Wolf, 1974). A 2002 annotated bibliography of publications of the TFM (Fixsen & Blasé, 2002)

lists more than 150 titles, addressing a range of topics from research on treatment procedures, practitioner training, program fidelity, administrative support to dissemination/ replication.

The TFM was first implemented in 1967 with the opening of a group home for delinquent youth as the Achievement Place Research Project at Kansas University. The TFM is best known because of its utilization at Boys Town (formerly Father Flanagan s Boys Town). Boys Town uses an advanced and updated adaptation of the TFM that has been described in detail by Daly and Dowd (1992).

**Treatment features—**TFM is characterized by clearly defined goals, integrated support systems, and a set of core elements, which include:

- Careful selection of prospective Teaching Parents, which are often married couples working as a treatment team
- Comprehensive skill-based training of these treatment providers
- Role of teaching parents as professional practitioners
- 24-hour professional consultation
- The routine use of proactive teaching interactions focused on positive prevention and youth-skill acquisition
- The use of a client peer leadership/self-government system
- Thorough and recurrent professional and community evaluation of the performance of the teaching parents
- Requirement of annual reaccreditation based on these evaluations
- An emphasis on family-style living and learning in a normalizing care environment

Besides residential group care, the TFM has also been applied to home-based services, foster care and treatment foster care, schools and psychiatric institutions. The model uses a married couple or other “teaching parents” to offer a family-like environment in the residence. The teaching parents help with learning living skills and positive interpersonal interaction skills. They are also involved with children s parents, teachers and other support network to help maintain progress.

TFM has been highlighted by the Surgeon General s Report on Mental Health, the American Psychological Association, the Office of Juvenile Justice and Delinquency Prevention, and the Juvenile Forensic Evaluation Resource Center. Inspired by attempts to professionalize and improve care for vulnerable youth, the TFM has been disseminated through the International Teaching Family Association. TFM is manualized and training is provided through regional TFM sponsoring agencies.

**Evidence for effectiveness—**Our review yielded seven articles, summarizing nine studies that met review criteria. Studied outcomes included behavior problems, symptomatology, family functioning and parental effectiveness, academic outcomes as well as service level outcomes, such as level of restrictiveness, and number of restraints. Studies reviewed included one randomized trial (Lewis, 2005), one quasi-experimental study with an equivalent comparison group (Thompson et al., 1996), four quasi-experimental studies with non-equivalent/non-matched comparison groups (Bedlington, Braukmann, Ramp & Wolf, 1988; Kirigin, Braukmann, Atwater & Wolf, 1982; Slot, Jagers & Dangel, 1992), and three pre-posttest studies (Jones & Timbers, 2003; Larzelere et al., 2004; Slot et al., 1992).

Lewis experimental study was subsequently removed from rating considerations since the study used an adaptation of the TFM within a family-based, not a group care setting.

Thompson et al. (1996) reported significant differences in improvements in academic functioning between youth receiving the TFM and an equivalent comparison group receiving treatment as usual. Bedlington et al. (1988) compared changes in functioning for youth placed in TFM residential homes versus youth placed in non-TFM homes. Findings were based on observer protocols that measured adult/youth interactions, teaching, intolerance of deviance, youth social behavior, pleasantness of the environment, and family-likeness and youth self-report of delinquency. TFM homes were rated as having significantly higher levels of adult/youth communication and instances of adults teaching youth. Kirigin et al. evaluated the effectiveness of TFM homes compared to similar residential programs. Comparison group homes were similar to treatment homes in terms of youths served, size and staffing by a live-in married couple. TFM was associated with fewer offenses during treatment while the rate actually increased for non-TFM boys.

In a pretest posttest study of 440 youth in a residential program, Larzelere et al. (2004) found significant improvements in problem behaviors as measured by the Child Behavior Checklist, significant reductions in psychiatric symptomatology and discharges to settings of lesser restrictiveness. A 2003 study by Jones and Timbers, using archival data, reported significant reductions in coercive behavioral control interventions following the introduction of the TFM. Slot et al. (1992) reported on a series of studies conducted in residential care homes in Canada and the Netherlands. The first study, a pre-post investigation, reported significant improvements in such area as overall adjustment, family adjustment, relationship with parents, and offense rates. However, the study also reported increases in post-treatment drinking. Study 2 measured levels of juvenile delinquency in youth experiencing a TFM program in the Netherlands and compared them to a cohort of Canadian youth in the same age range. The number of TFM-youth staying at the same offending level was half that of the comparison group. Significantly more TFM youth moved toward a less serious offending level.

The TFM was rated as “promising” (Level 3) with a medium (2) rating for relevance for child welfare practice. Outcomes primarily involve domains of child and family well-being.

## Sanctuary Model

**Overview—**The Sanctuary® Model (Bloom, 1997) represents a trauma-informed method for creating or changing an organizational culture in order to more effectively provide a cohesive context within which healing from psychological and social traumatic experience can be addressed. It is a whole system approach designed to facilitate the development of structures, processes and behaviors on the part of staff, children, and the community that can counteract the biological, affective, cognitive, social, and existential wounds suffered by the children in care. Sanctuary® was developed by Sandra Bloom and colleagues within the context of a short-term acute inpatient psychiatric setting. The model has been implemented and modified in a range of settings, including group care.

**Treatment features—**The Sanctuary® Model has several explicit features that constitute the foundation for creating a shared vision and common goals among treatment staff. The model places emphasis on nonviolence, emotional intelligence, inquiry and social learning, shared governance, open communication, social responsibility and growth and change. Recovery from trauma is conceptualized as occurring in four stages that focus on Safety, Emotional Management, Loss, and Future (SELF). Using this trauma recovery framework along with cognitive-behavioral strategies, youths are taught skills aimed at improving their ability to adapt to and cope with traumatic and other stressful life experiences. The model is

implemented in a variety of ways through staff dialogue and self evaluations of residential units structure and functioning, staff training, ongoing technical assistance, twice-daily community meetings, psychoeducation exercises used by staff in daily interactions with youth, and weekly psychoeducation groups (Duffy, McCorkle & Ryan, 2002). The curriculum to conduct the groups was developed for 12 sessions, which address the elements of the trauma recovery framework (Rivard, 2004). The model does not include a specific parent component.

The overall Sanctuary® Model is not manualized, but training is available to guide its implementation. If an agency deems itself ready to commit to the full implementation, the agency undergoes a rigorous initial assessment. The assessment includes reflections from leadership on their readiness and willingness to implement the model, and on-site visit from a trainer to better assess the organization s culture. The training takes five days with follow-up consultation available.

**Evidence for effectiveness—**Evaluative work of the sanctuary model is very limited. Targeted outcomes have included self-esteem, trauma symptoms, behavior problems, parent and peer attachment, as well as coping and problem solving skills, using a range of well-accepted standardized measures. In a quasiexperimental study, Rivard, Bloom, McCorkle and Abramovitz (2005) examined implementation and short-term effects of the Sanctuary® Model for 158 youths with histories of maltreatment placed in residential treatment facilities. Using a series of standardized measures, the study reported significant differences in outcomes for youth in Sanctuary® Model programs compared to those placed in other group care facilities. Differences in improvement were noted in the area of interpersonal conflict, personal control, verbal aggression, and problem solving. According to CEBC criteria, the model is considered to be “promising.” The relevance to child welfare practice is medium (2). Research on the Sanctuary® Model has addressed outcomes of child and family well-being.

### Stop-Gap Model

**Overview—**The Stop-Gap model, introduced by McCurdy and McIntyre (2004) reconceptualizes group care as a short-term arrangement aimed at stabilizing youth sufficiently for discharge to a lower level community-based treatment. It incorporates evidence-based practices within a three-tiered approach (i.e., environment-based, intensive, and discharge related) of service delivery for group care settings. The two-fold goal of the Stop-Gap model is to interrupt the youth s downward spiral imposed by increasingly disruptive behavior and prepare the post-discharge environment for the youth s timely re-integration. The Stop-Gap model recognizes the importance of community-based service delivery approach while providing intensive and short-term support for youths with the most challenging behaviors.

**Treatment features—**Youths enter the model at Tier I, where they receive environment-based and discharge-related services. The focus at Tier I is on the immediate reduction of “barrier” behaviors (i.e., problem behaviors that prevent re-integration) through intensive ecological and skill teaching interventions. This includes interventions such as token economy, academic interventions, social skills training, problem-solving and anger management skills training. Simultaneously, discharge related interventions commence (Tier II). These activities are designed to connect youth to critical community supports and include Intensive Case Management, Parent Management Training, and community integration activities. To the extent that problem behaviors are not reduced at Tier I, intensive Tier III interventions that include function-based behavior support planning are

implemented. Depending on the needs of the individual child, it is anticipated that the duration of service may range from 90 days to one year.

**Evidence for effectiveness—**Evaluative work on this model is still in early stages. McCurdy and McIntyre present data on the comparative rates of therapeutic holds in two units of a residential treatment center, one of which introduced the environment-based intervention after seven months. Groups were matched on population number, gender and disability. At twelve months, the intervention residence showed a decline in therapeutic holds, while the comparison group showed an increase over the same period. The model was rated as "promising." The relevance to child welfare ratings was considered "medium."

### Re-ED

**Overview—**Re-ED (originally called Re-Education of children with Emotional Disturbance) is an ecological competence approach to helping troubled children and youth and their families entering child serving systems (e.g., Cantrell & Cantrell, 2007; Hobbs, 1966). This philosophy-based approach has refined its beliefs and practice since the early 1960s. Re-ED signified a change in service paradigm for youth, emphasizing a strength-based approach, an ecological orientation, a focus on competence and learning, an emphasis on relationship-building and the development of a culture of questioning and informed or data-driven decision-making. Re-ED was originally implemented and tested in short-term residential treatment programs as well as public school support services programs. Since then, the model has been adapted to a wide variety of community needs.

**Treatment features—**Re-ED is intended to be implemented as a group approach with about eight to ten children or youth in one group. The treatment intensity as well as duration can vary depending on setting. Group meetings may be held multiple times a day for specific purposes, e.g., planning, problem solving, strengths-building. The length of group sessions lasts from fifteen minutes to more than an hour, but is primarily determined by the purpose, structure and goals of the particular group. From its beginning, Re-ED was committed to short-term enrollment (about 4–6 months residential care enrollment) and return to the community as soon as possible. Some Re-ED services operate without a group meeting format, but still meet as family/professional teams to work toward targeted goals. Re-ED includes a homework component that is focused on the implementation of behavioral goals by youth and their parents. Re-ED was designed with a parent component.

**Training—**Training modules are available that describe the Re-ED philosophy and how to implement the program. The Introductory Training Modules usually require two days for a group unfamiliar with Re-ED, but may be divided into six segments for programs needing different schedules. Training can be obtained on-site, but observations in Re-ED programs with coordinated activities are recommended.

**Evidence for effectiveness—**A few outcome studies of Re-ED have been conducted, but have been restricted to pre-posttest designs (Fields, Farmer, Apperson, Mustillo & Simmers, 2006; Hooper, Murphy, Devaney & Hultman, 2000; Weinstein, 1969). Table 3 summarizes features and results of these studies. While findings indicate improvement in various domains of functioning following Re-ED, this model did not receive a rating at this time given the lack of studies using a comparison group.

## Discussion

This structured review identified five treatment models relevant to group care for children referred by the child welfare system. Four of the models were rated as either being

supported by research evidence (PPC) or being promising (TFM, Sanctuary Model, Stop-Gap). The Re-ED model could not be rated due to lack of evaluative data, which would meet CEBC rating criteria. The models were generally considered to be of medium relevance to the child welfare population, and all studies included in the review primarily targeted child and family well-being outcomes rather than outcomes of safety or permanency. What do these ratings mean for research in this area, for group care providers and child-serving systems? There are several issues to consider.

## Limitations of Group Care Research

This review introduces professionals and researchers interested in this field to group care treatment models that are fairly well specified and relevant to child welfare populations. The encouraging news is that four out of the five models had sufficient evidence to be rated, and that the quality of the studies warranted a rating of support or promise for effectiveness. On the other hand, the combined body of rigorous studies on these models remains painfully small and, in some cases, dated. Currently, researcher Elizabeth Farmer is conducting NIMH-funded work on the effectiveness of the Teaching Family Model (http://projectreporter.nih.gov/project_info_description.cfm?aid=7665356&icde=4693524), and her work promises to advance the knowledge base in this area. However, there does not appear to be much progression of knowledge with regard to the other models, and the emphasis on the development of less expensive community-based interventions is unlikely to encourage development and implementation of new group care models.

The limitations of group care research also need to be considered to understand the rating of “effective” for the PPC model versus the rating of “promising” for three other programs. PPC s rating is primarily based on one experimental study and the length of its follow up period (Leeman et al., 1993). While more studies have evaluated the effectiveness of the TFM, randomization remains the hallmark to determine efficacy, and more studies like the Leeman et al. study are needed. However, conducting experimental studies in real-world settings, especially with vulnerable youths continues to be an extraordinary challenge that is often abandoned for pragmatic as well as ethical reasons (e.g., Gustavsson & MacEachron, 2007). Yet it is exactly this type of scientific rigor that will be required to provide definitive answers about the effectiveness of a model.

## Which Model to Choose?

**Considering core ingredients—**Comparing the models to each other in their utility for group care settings is not straightforward. All models target youth considered to be “troubled” or “at risk.” However, while PPC, TFM, Stop-Gap and Re-ED appear to be particularly equipped to deal with youth who exhibit externalizing behavior problems, the Sanctuary® Model places explicit emphasis on addressing trauma within a safe and supporting milieu. PPC and the Sanctuary® Model are intended for use with adolescents whereas the age range for TFM, StopGap and Re-ED extends to younger ages. None of the models have race/ethnicity or maltreatment type specifications. All models are described as short-term programs with stays ranging from 3 months to about 1 year. Emphasis on group treatment varies across the models: PPC and Re-ED rely heavily on (almost) daily structured group meetings. TFM and Stop-Gap may utilize a group format, but rely on groups to a lesser degree. The Sanctuary® Model is not specifically designed with a group component, but is more milieu-oriented. A major criticism of group care has been its lack of connection and involvement with the youth s biological family (Barth, 2005). All models except for PPC include a parent component. However, we do not know at this time how consistently this aspect is implemented in each model.

Unfortunately, research on group care models remains in early developmental stages and prohibits identification of essential or core ingredients at this time. However, there are a few treatment components in some of the models that are unique, and determining their role in the effectiveness of the model would deserve further investigation. For instance, a distinguishing factor of the TFM model is the use of Teaching Parents who live with about six to eight youths in small therapeutic group home units. As such TFM homes tend to bear more resemblance with treatment foster homes than with larger group care facilities, which traditionally rely on shift staff. Given the stronger evidence for treatment foster care (in particular Multidimensional Treatment Foster Care) (Chamberlain, 2002), this is a feature that makes the TFM particularly promising. Small therapeutic group care settings have been described as a realistic alternative for difficult-to-manage youth when treatment foster care is not available (Burns, Hoagwood & Mrazek, 1999). In contrast, PPC s emphasis on peer culture raises concerns in light of prior research on iatrogenic effects (e.g., Dishion, McCord & Poulin, 1999). While the presence of these effects is not undisputed (Lee & Thompson, 2009) and is countered by some of the positive findings of studies evaluating PPC, there is evidence that adult-mediated treatment models compared to peer-mediated models are more effective for youth with significant behavioral problems (Chamberlain, Ray & Moore, 1996) and that heavy reliance on group processes can have detrimental effects (Kapp, 2000). It deserves noting that PPC is not the only model that integrates concepts of peer governance and positive influence of peers. Many group care programs rely on group processes to some degree. Within the context of this review, this includes TFM and Re-ED. The benefits and liabilities of placing youth with emotional and behavioral disturbances into one setting, and the factors that may mediate these effects, need to continue being the subject of systematic investigation.

The Stop-Gap model is undergirded by a conceptual model that is particularly compelling in today s evidence-based driven environment, emphasizing integration of a range of evidence-based treatments (e.g., parent management, intensive case management, cognitive behavioral therapy) within the context of a group care delivery model that is tied to the overall treatment and discharge planning of the youth. Unfortunately, it does not appear that Stop-Gap has been implemented or evaluated beyond the program described in the McCurdy and McIntyre (2004) publication. The model has a lot of face validity, and group care programs and child-serving systems would be well advised to review it. However, without further implementation and research to test the effectiveness of the model, Stop-Gap will not grow beyond the “promising” stage.

**Considering outcomes—**The studies reviewed measured effectiveness along a range of outcomes, including moral judgment, cognitive distortions, moral beliefs, behavioral outcomes, self-concept, family functioning, restrictiveness of environment, academic performance, etc. The utility of the models is in part determined by the relevance of the outcomes to group care settings and more generally to child welfare practice. Studies considered in this review primarily addressed domains of well-being, only two measured permanency outcomes (Kirigin et al., 1982; Larzelere et al., 2004), and none measured outcomes related to child safety. However, little is known about the outcomes that are most important to group care providers and how much these outcomes may vary across programs or how much they converge with the targeted outcomes of a youth s overall case plan. Group care settings whose programs aim to improve outcomes in domains similar to the ones captured in the studies here are encouraged to closely review the respective treatment model.

## To Manualize or not to Manualize?

This review most of all highlights the need to specify group care models. Only specified, and preferably manualized models lend themselves to dissemination and evaluation and

thus, knowledge development. A relationship between well-conceptualized and implemented programs and achievement of targeted outcomes has been shown in the area of group care for juvenile offenders (Dowden & Andrews, 2000). Yet there is little evidence that group care settings follow clearly specified models, and even less evidence that they follow one of the models reviewed here. Usual care group care, like other bundled or multi-component interventions (e.g., treatment foster care, inpatient psychiatric care), presents a black box in which individual group care facilities "stuff" a broad array of treatments and services. At minimum, there are expectations that children and youth are safely housed and supervised, and state licensing agencies are in charge of supervising this aspect of group care. The placement or residential aspect of group care settings is generally funded through child welfare dollars. However, many group care settings are also expected - and receive mental health dollars - to provide treatment to address the emotional and behavioral needs of the youth in their care. Yet once a group care facility s initial program is licensed there is relatively little oversight unless there are overt violations of licensing standards. Thus, group care facilities have enormous freedom in determining their treatment philosophy and approach. Current research knowledge about usual care group care is limited, but experience supported by some research indicate that there is considerable variability within and between group care facilities with regard to how and what type of services are delivered (Whittaker, 2004).

Given our limited systematic knowledge about group care and the variability in client population, age range, treatment approach, lengths of stay, services provided, and targeted outcomes, it appears to be bad science to aggregate all group care under one umbrella construct and attempt to determine its effectiveness. However, classifying group care settings more accurately may be difficult or even impossible since (a) group care settings may not be able to identify a unifying and consistent treatment approach; (b) researchers may have insufficient information about the particular features and characteristics of a group care setting; and (c) doing so may lead to a critical shrinking of sample size that would undermine the usability of data.

## Conclusion

This is a time of unprecedented pressure for group care settings. Increased emphasis on evidence and outcomes, policy directives and class action lawsuits urging reduction of group care utilization, along with a growing number of home- and community-based interventions that promise to provide better care and outcomes for children with serious emotional and behavioral disorders have placed group care settings under renewed scrutiny. Many child serving systems have already successfully reduced their group care utilization rates and are in a position of leverage to demand greater transparency from group care settings about the services they provide and the quality of these services (Lee & McMillen, 2007). Research on group care remains in early developmental stages, and as this review indicated, far too few rigorous studies have been conducted to make a strong recommendation for one or the other treatment model. However, it is in the best interest of group care settings that genuinely try to deliver quality care to collaborate with child welfare service systems and researchers to identify the essential elements of their program, to critically review their program in light of the needs of the youth they serve, and to consider adopting or learning from the treatment models that already have an evidence-base.

## References

Barth RP. Residential care: From here to eternity. International Journal of Social Welfare. 2005; 14:158–162.

Barth RP, Greeson JKP, Guo S, Green RL, Hurley S. Outcomes for youth receiving intensive in-home therapy or residential care: A comparison using propensity scores. American Journal of Orthopsychiatry. 2007; 77(4):497–505. [PubMed: 18194029]

Bean P, White L, Lake P. Is residential care an effective approach for treating adolescents with co-occurring substance abuse and mental health diagnoses? Best Practices in Mental Health. 2005; 1(2):50–60.

Bedlington MM, Braukmann CJ, Ramp KA, Wolf MM. A comparison of treatment environments in community-based group homes for adolescent offenders. Criminal Justice and Behavior. 1988; 15(30):349–363.

Bettmann JE, Jasperson RA. Adolescents in residential and inpatient treatment: A review of the outcome literature. Child and Youth Care Forum. 2009; 38(4):161–183.

Blasé, KA.; Fixsen, DL.; Freeborn, K.; Jaeger, D. The behavioral model. In: Lyman, RD.; Prentice-Dunn, S.; Stewart, G., editors. Residential and inpatient treatment of children and adolescents. New York, NY: Plenum Press; 1989. p. 43-59.

Bloom SL. Creating sanctuary for kids: helping children to heal from violence. Therapeutic Community: The International Journal for Therapeutic and Supportive Organizations. 2005; 26(1): 57–63.

Bloom, SL. Creating sanctuary: Toward the evolution of sane societies. New York: Routledge; 1997.

Breland-Noble AM, Elbogen EB, Farmer EMZ, Dubs MS, Wagner HR, Burns BJ. Use of psychotropic medications by youths in therapeutic foster care and group homes. Psychiatric Services. 2004; 55(6):706–708. [PubMed: 15175471]

Breland-Noble AM, Farmer EMZ, Dubs MS, Potter E, Burns BJ. Mental health and other service use by youth in therapeutic foster care and group homes. Journal of Child and Family Studies. 2005; 14(2):167–180.

Brendtro, L.; Shahbazian, M. Troubled children and youth: turning problems into opportunities. Champaign, IL: Research Press; 2004.

Burns BJ, Hoagwood K, Mrazek PJ. Effective treatment for mental disorders in children and adolescents. Clinical Child and Family Psychology Review. 1999; 2(4):199–254. [PubMed: 11225935]

Burns BJ, Phillips SD, Wagner HR, Barth RP, Kolko DJ, Campbell Y, Landsverk J. Mental health need and access to mental health services by youths involved with child welfare: A national survey. Journal of the American Academy of Child and Adolescent Psychiatry. 2004; 43(8):960–970. [PubMed: 15266190]

Butler LS, McPherson PM. Is residential treatment misunderstood? Journal of Child Family Studies. 2007; 16:465–472.

The California Evidence-Based Clearinghouse for Child Welfare Practice. n.d. www.cebc4cw.org/

Cantrell, R.; Cantrell, M., editors. Helping troubled children and youth: Continuing evidence for the Re-ED approach. Memphis, TN: American Re-Education Association; 2007.

Chamberlain. Treatment foster care. In: Burns, BJ.; Hoagwood, K., editors. Community treatment for youth: evidence based interventions for severe emotional and behavioral disorders. New York: Oxford University Press; 2002. p. 117-138.

Chamberlain P, Reid JB. Comparison of two community alternatives to incarceration for chronic juvenile offenders. Journal of Consulting and Clinical Psychology. 1998; 66(4):624–633. [PubMed: 9735578]

Chamberlain P, Ray J, Moore KJ. Characteristics of residential care for Adolescent offenders: A comparison of assumption and practices in two models. Journal of Child & Family Studies. 1996; 5(3):285–297.

Curtis PA, Alexander G, Lunghofer LA. A literature review comparing the outcomes of residential group care and therapeutic foster care. Child & Adolescent Social Work Journal. 2001; 18(5):377–392.

Daly DL, Dowd TP. Characteristics of effective, harm-free environments for children in out-of-home care. Child Welfare. 1992; 71(6):487–496. [PubMed: 1424944]

Davis GL, Hoffman RG, Quigley R. Self-concept change and Positive Peer Culture in adjudicated delinquents. Child and Youth Care Quarterly. 1988; 17(3):137–143.

Dishion TJ, McCord J, Poulin F. When interventions harm: peer groups and problem behavior. American Psychologist. 1999; 54:755–764. [PubMed: 10510665]

Dowden C, Andrews DA. Effective correctional treatment and violent reoffending: A meta-analysis. Journal of Criminology. 2000; 42(4):449–468.

Duffy, K.; McCorkle, D.; Ryan, R. Unpublished manual. 2002. Sanctuary psychoeducation group: Leader's manual.

Farragher B, Yanosy S. Creating a trauma-sensitive culture in residential treatment. Therapeutic Communities: The International Journal for Therapeutic and Supportive Organizations. 2005; 26(1):97–113.

Fields E, Farmer EMZ, Apperson J, Mustillo S, Simmers D. Treatment and posttreatment effects of a residential treatment using a Re-education model. Behavioral Disorders. 2006; 31(3):312–322.

Fixsen, DL.; Blasé, KA. Publications regarding the Teaching-Family Model. Louis de la Parte Florida Mental Health Institute, University of South Florida; 2002. [On-line]. Available: http://www.teaching-family.org/bibliography.html

Garland A, Hough RL, Landsverk JA, Brown S. Multi-sector of systems of care for youth with mental health needs. Children's Services: Social Policy, Research, & Practice. 2001; 4(3):123–140.

Gibbs JC, Potter GB, Barriga AQ, Liau AK. Developing the helping skills and prosocial motivation of aggressive adolescents in peer group programs. Aggression and Violent Behaviour. 1996; 1:283–305.

Gustavsson N, MacEachron AE. Research on foster children. A role for social work. Social Work. 2007; 52(1):85–87. [PubMed: 17388087]

Hair HJ. Outcomes for children and adolescents after residential treatment: A review of research from 1993 to 2003. Journal of Child and Family Studies. 2005; 14(4):551– 575.

Hoagwood K, Cunningham M. Outcomes of children with emotional disturbance in residential treatment for educational purposes. Journal of Child & Family Studies. 1993; 1:129–140.

Hobbs N. Helping disturbed children: Psychological and ecological strategies. American Psychologist. 1966; 21:1105–1115. [PubMed: 5980699]

Hooper SR, Murphy J, Devaney A, Hultman T. Ecological outcomes of adolescents in a psychoeducational residential treatment facility. American Journal of Orthopsychiatry. 2000; 70(4):491–500. [PubMed: 11086527]

James, S.; Roesch, S.; Zhang, J. Characteristics and behavioral outcomes for youth in group care and family-based care – a propensity score matching approach using national data. under review

James S, Leslie LK, Hurlbert MS, Slymen DJ, Landsverk J, Davis I, Mathiesen SG, Zhang J. Children in out-of-home care: Entry into intensive or restrictive mental health and residential care placements. Journal of Emotional and Behavioral Disorders. 2006; 14(4):196–208.

Jones RJ, Timbers GD. Minimizing the need for physical restraint and seclusion in residential youth care through skill-based treatment programming. Families in Society. 2003; 84(1):21–29.

Kapp SA. Positive Peer Culture: The viewpoint of former clients. Journal of Child and Adolescent Group Therapy. 2000; 10:175–189.

Kirigin, KA. Teaching-Family Model of group home treatment of children with severe behavior problems. In: Roberts, MC., editor. Model programs in child and family mental health. Mahwah, NJ: Erlbaum; 1996. p. 231-247.

Kirigin KA, Braukmann CJ, Atwater JD, Wolf MM. An evaluation of Teaching- Family (Achievement Place) group homes for juvenile offenders. Journal of Applied Behavior Analysis. 1982; 15:1–16. [PubMed: 7096223]

Landsman MJ, Groza V, Tyler M, Malone K. Outcomes of family-centered residential treatment. Child Welfare. 2001; 80:351–379. [PubMed: 11380046]

Larzelere RE, Dinges K, Schmidt MD, Spellman DF, Criste TR, Connell P. Outcomes of residential treatment: A study of the adolescent clients of girls and boys town. Child and Youth Care Forum. 2001; 30(3):175–185.

Larzelere RE, Daly EL, Davis JL, Chmelka MB, Handwerk ML. Outcome evaluation of Girls and Boys Town s Family Home Program. Education and Treatment of Children. 2004; 27(2):130–149.

Laursen EK. Rather than fixing kids – build positive peer cultures. Reclaiming Children and Youth. 2005; 4(3):137–142.

Lee BR. Defining residential treatment. Journal of Child and Family Studies. 2008; 17(5):689–692.

Lee BR, Thompson R. Comparing outcomes for youth in treatment foster care and family-style group care. Children and Youth Services Review. 2008; 30(7):746–757. [PubMed: 19122763]

Lee BR, McMillen JC. Measuring quality in residential treatment for children and Youth. Residential Treatment for Children & Youth. 2007; 24(1/2):1–17.

Leeman LW, Gibbs JC, Fuller D. Evaluation of a multi-component group treatment program for juvenile delinquents. Aggressive Behavior. 1993; 19:281–292.

Leichtman M. Residential treatment of children and adolescents: Past, present, and future. American Journal of Orthopsychiatry. 2006; 76(3):285–294. [PubMed: 16981807]

Leichtman M, Leichtman ML, Barber CC, Neese DT. Effectiveness of intensive short-term residential treatment with severely disturbed adolescents. American Journal of Orthopsychiatry. 2001; 71:227–235. [PubMed: 11347363]

Lewis RE. The effectiveness of Families First services: An experimental study. Children and Youth Services Review. 2005; 27:499–509.

Lyons JS, Schaefer K. Mental health and dangerousness: Characteristics and outcomes of children and adolescents in residential placements. Journal of Child and Family Studies. 2000; 9(1):67–73.

Lyons JS, Terry P, Martinovich Z, Peterson J, Bouska B. Outcome trajectories Adolescents in residential treatment: A statewide evaluation. Journal of Child and Family Studies. 2001; 10(3): 333–345.

Mann-Feder VR. Adolescents in therapeutic communities. Adolescence. 1996; 31(121):17–29. [PubMed: 9173783]

McCurdy BL, McIntyre EK. And what about residential …? Re-conceptualizing residential treatment as a stop-gap service for youth with emotional and behavioral disorders. Behavioral Interventions. 2004; 19:137–158.

McMillen JC, Scott LD, Zima BT, Ollie MT, Munson MR, Spitznagel E. Use of mental health services among older youths in foster care. Psychiatric Services. 2004; 55(7):811–817. [PubMed: 15232022]

McMillen JC, Zima BT, Scott LD, Auslander WF, Munson MR, Ollie MT, Spitznagel E. Prevalence of psychiatric disorders among older youths in the foster care system. Journal of the American Academy of Child and Adolescent Psychiatry. 2005; 44:88–95. [PubMed: 15608548]

Moody EE, Lupton-Smith HS. Interventions with juvenile offenders: Strategies to prevent acting out behavior. Journal of Addictions & Offender Counseling. 1999; 20(1):2–15.

Nas CN, Brugman D, Koops W. Effects of the EQUIP programme on the moral judgement, cognitive distortions, and social skills of juvenile delinquents. Psychology, Crime and Law. 2005; 11(4): 421–434.

NREPP. SAMSHA's National Registry of Evidence-Based Programs and Practices. 2010. http://www.nrepp.samhsa.gov/

Overcamp-Martini MA, Nutton J. CAPTA and the residential placement: A survey of state policy and practice. Child and Youth Care Forum. 2009; 38(2):55–68.

Peterson M, Scanlan M. Diagnosis and placement variables affecting the outcome of adolescents with behavioral disorders. Residential Treatment for Children and Youth. 2002; 20:15–23.

Phillips, EL.; Phillips, EA.; Fixsen, DL.; Wolf, MM. The Teaching-Family handbook. 2. Lawrence, KS: University Press of Kansas; 1974.

Quigley R. The colorful evolution of a strength-based treatment model. Reclaiming Children & Youth. 2003; 12(1):28–32.

Rivard JC. Initial findings of an evaluation of a trauma recovery framework in residential treatment. Residential Group Quarterly. 2004; 5(1):3–5.

Rivard JC, Bloom SL, McCorkle D, Abramovitz R. Preliminary results of a study examining the implementation and effects of a trauma recovery framework for youths in residential treatment. Therapeutic Community. 2005; 26(1):83–96.

Ryan JP. Dependent youth in juvenile justice: Do Positive Peer Culture programs work for victims of child maltreatment? Research on Social Work Practice. 2006; 16(5):511–519.

Sherer M. Effects of group intervention on moral development of distressed youth in Israel. Journal of Youth and Adolescence. 1985; 14(6):513–526.

Slot NW, Jagers HD, Dangel RF. Cross-cultural replication and evaluation of the Teaching Family Model of community-based residential treatment. Behavioral Residential Treatment. 1992; 7(5): 341–354.

Thompson RW, Smith GL, Osgood DW, Dowd TP, Friman PC, Daly DL. Residential care: A study of short- and long-term educational effects. Children and Youth Services Review. 1996; 18(3):221–242.

U.S. Department of Health and Human Services [USDHHS], Administration for Children, Youth and Families. The AFCARS report. Washington DC: Author; 2008. www.acf.hhs.gov/programs/cb

Valore T, Cantrell R, Cantrell ML. Competency building in the context of groups. Reclaiming Children and Youth. 2006; 14(4):228–235.

Vorrath, H.; Brendtro, L. Positive Peer Culture. 2. New York: Aldine; 1985.

Walker B, Fecser F. Elements of an effective Re-Education program for the 21 century. Reclaiming Children and Youth. 2002; 11(2):110–115.

Wasmund, WC.; Tate, TF. Partners in empowerment: a peer group primer. Albion, MI: Starr Commonwealth; 1996.

Weinstein L. Project Re-Ed for schools for emotionally disturbed children: Effectiveness as viewed by referring agencies, parents and teachers. Exceptional Children. 1969; 35(9):703–711. [PubMed: 5786367]

Weis R, Whitemarsh SM, Wilson N. Military style residential treatment for disruptive adolescents: Effective for some girls, all girls, when, and why? Psychological Services. 2005; 2(2):105–122.

Whittaker JK. The re-invention of residential treatment: An agenda for research and practice. Child and Adolescent Psychiatric Clinics of North America. 2004; 13(2):267–278. [PubMed: 15062345]

Wilmshurst LA. Treatment programs for youth with emotional and behavioral disorders: An outcome study of two alternate approaches. Mental Health Services Research. 2002; 4(2):85–96. [PubMed: 12090310]

Wolf MM, Kirigin KA, Fixsen DL, Blasé KA, Braukmann CJ. The Teaching- Family Model: A case study in data-based program development and refinement (and dragon wrestling). Journal of Organizational Behavior Management. 1995; 15:11–68.

Wulczyn F, Kogan J, Harden BJ. Placement stability and movement trajectories. Social Science Review. 2003; 77(2):212–236.

Zakriski AL, Wright JC, Parad HW. Intensive short-term residential treatment: A contextual evaluation of the “stop-gap” model. The Brown University Child and Adolescent Behavior Letter. 2006; 22(6):1–6.

*Child Youth Serv Rev*. Author manuscript; available in PMC 2012 March 28.

**Table 1**

CEBC Rating Criteria

| Rating | Scientific Rating Criteria |
|---|---|
| 1 – Well supported by Research Evidence | • There is no clinical or empirical evidence or theoretical basis indicating that the practice constitutes a substantial risk of harm to those receiving it, compared to its likely benefits.<br>• The practice has a book, manual, and/or other available writings that specify components of the service and describes how to administer it.<br>• Multiple Site Replication: At least 2 rigorous randomized controlled trials (RCTs) in different usual care or practice settings have found the practice to be superior to an appropriate comparison practice. The RCTs have been reported in published, peer-reviewed literature.<br>• In at least one RCT, the practice has been shown to have a sustained effect at least one year beyond the end of treatment.<br>• Outcome measures must be reliable and valid, and administered consistently and accurately across all subjects.<br>• If multiple outcome studies have been conducted, the overall weight of the evidence supports the effectiveness of the practice. |
| 2 – Supported by Research Evidence | • There is no clinical or empirical evidence or theoretical basis indicating that the practice constitutes a substantial risk or harm to those receiving it, compared to its likely benefits.<br>• The practice has a book, manual, and/or other available writings that specifies the components of the practice protocol and describes how to administer it.<br>• At least 1 rigorous randomized controlled trial (RCT) in usual care or a practice setting has found the practice to be superior to an appropriate comparison.<br>• In at least 1 RCT, the practice has been shown to have a sustained effect of at least six months beyond the end of treatment.<br>• Outcome measures must be reliable and valid, and administered consistently and accurately across all subjects.<br>• If multiple outcome studies have been conducted, the overall weight of evidence supports the benefit of the practice. |
| 3 - Promising Research Evidence | • There is no clinical or empirical evidence or theoretical basis indicating this practice constitutes a substantial risk of harm to those receiving it, compared to its likely benefits.<br>• The practice has a book, manual, and/or other available writings that specifies the components of the practice protocol and describes how to administer it.<br>• At least one study utilizing some form of control (e.g. untreated group, placebo group, matched wait list) have established the practice's benefit over the placebo, or found it to be comparable to or better than an appropriate comparison practice. The study has been reported in published, peer-reviewed literature.<br>• If multiple outcome studies have been conducted, the overall weight of evidence supports the benefit of the practice. |
| 4 - Research Evidence Fails to Demonstrate Effect | • Two or more randomized, controlled trials (RCTs) have found that the practice has not resulted in improved outcomes, when compared to usual care. The studies have been reported in published, peer review literature.<br>• If multiple outcome studies have been conducted, the overall weight of evidence does not support the benefit of the practice. |
| 5 – Concerning Practice<br>NR – Not Rated* | • If multiple outcome studies have been conducted, the overall weight of evidence suggests the intervention has a negative effect upon clients served, AND/OR<br>• There is a reasonable theoretical, clinical, empirical, or legal basis suggesting that, compared to its likely benefits, the practice constitutes a risk of harm to those receiving it.<br>• There is no clinical or empirical evidence or theoretical basis indicating that the practice constitutes a substantial risk of harm to those receiving it, compared to its likely benefits.<br>• The practice has a book, manual, and/or other available writings that specifies the components of the practice protocol and describes how to administer it. |

| Rating | Scientific Rating Criteria |
|---|---|
| | • The practice is generally accepted in clinical practice as appropriate for use with children receiving services from child welfare or related systems and their parents/ caregivers.<br>• The practice does not have any published, peer-reviewed study utilizing some form of control (e.g., untreated group, placebo group, matched wait list) that has established the practice's benefit over the placebo, or found it to be comparable to or better than an appropriate comparison practice. |
| **Rating** | **Relevance to Child Welfare Populations** |
| 1- High | • The program was designed or is commonly used to meet the needs of children, youth, young adults, and/or families receiving child welfare services. |
| 2 - Medium | • The program was designed or is commonly used to serve children, youth, young adults, and/or families who are similar to child welfare populations (i.e. in history, demographics, or presenting problems) and likely included current and former child welfare services recipients. |
| 3- Low | • The program was designed or is commonly to serve children, youth, young adults, and/or families with little or no apparent similarity to the child welfare services population. |
| **Rating** | **Relevance to Child Welfare Outcomes** |
| Yes/No | The program evaluation had measures relevant to **safety**.<br>• Children are, first and foremost, protected from abuse and neglect.<br>• Children are safely maintained in their homes whenever possible and appropriate. |
| Yes/No | The program evaluation had measures relevant to **permanency**.<br>• Children have permanency and stability in their living |
| Yes/No | The program evaluation had measures relevant to child and family **well-being.**<br>• Families have enhanced capacity to provide for their children's needs.<br>• Children receive appropriate services to meet their educational needs.<br>• Children receive adequate services to meet their physical and mental health needs. |

*Child Youth Serv Rev*. Author manuscript; available in PMC 2012 March 28.

**Table 2**

Overview of Group Care Treatment Models

| Model and Citations to Descriptive Articles | Target Population | Essential Model Components and Duration | Education and Training Resources | Child Welfare Relevance |
|---|---|---|---|---|
| ***Positive Peer Culture*** Vorrath & Brendtro (1985) Laursen (2005) Wasmund & Tate (1996) Brendtro & Shahbazian (2004) | • Population: troubled and troubling youth<br>• Age: 12–17<br>• Race: no specification<br>• Maltreatment type: all types<br>• Settings: residential care, outpatient clinic, school | **Essential Components:**<br>• Building group responsibility<br>• The group meeting<br>• Service learning<br>• Teamwork primacy<br>**Format:**<br>• Designed for group format<br>• Recommended group size: 8–12<br>• Duration: 90 minute structured group meetings, 5 times per week over a 6–9 months period<br>• Designed with a child component, but not with a parent component | **Manual:** yes<br>**Training:** yes<br>• Number of days/hours: varies<br>• Both classroom training and program immersion<br>• The Academy of Positive Peer Culture provides training annually at the Black Hills Seminars in Rapid City, SD.<br>• On-site consultation $1,500 per day plus expenses; Black Hills Seminars – currently $450 per person<br>**Contact:**<br>• The Academy for Positive Peer Culture c/o Reclaiming Youth P. O. Box 57 Lennox, SD 57039<br>• Starr Commonwealth, c/o T.F. Tate 13725 Starr Commonwealth Rd Albion, MI 49224<br>• UMFS; c/o E.K. Laursen 3900 West Broad Street Richmond, VA 23230 | **Relevance to CW Population:** Medium<br>**Relevance to CW Outcomes**<br>• Measures relevant to safety: No<br>• Measures relevant to permanency: No<br>• Measures relevant to child and family well-being: Yes |
| ***Teaching Family Model*** Blase, Fixsen, Freeborn, & Jaeger (1989). | • Populations: at-risk youth, juvenile delinquents, youth in foster care, developmental disability, severe emotional disturbance, | **Critical Delivery Systems:**<br>• Staff selection & training<br>• Competency-based management (consultation/supervision)<br>• Quality assurance (evaluation)<br>• Facilitative administration | **Manual:** yes; available on the web;<br>**Training:** yes;<br>• Number of days/hours: Pre-service about 40 hours. Ongoing consultation with individual certification typically occurring after one year of practice. | **Relevance to CW Population:** Medium<br>**Relevance to CW Outcomes:**<br>• Measures relevant to safety: No |
| Kirigin (1996) Wolf, Kirigin, Fixsen, Blase & Braukmann (1995) | • families at risk of having children removed<br>• Age: 0–17<br>• Race: not specified<br>• Maltreatment type: not specified | **Essential Elements:**<br>• Teaching systems<br>• Self-determination<br>• Client advocacy<br>• Relationships<br>• Family-sensitive approach | • How is training obtained: Provided by regional sponsoring agency.<br>• Cost of training: Part of the employment components. No cost to practitioner employed by the agency.<br>• Certification needed<br>**Contact:** | • Measures relevant to permanency: No<br>• Measures relevant to child and family well-being: Yes |

| Model and Citations to Descriptive Articles | Target Population | Essential Model Components and Duration | Education and Training Resources | Child Welfare Relevance |
|---|---|---|---|---|
| | • Settings: residential care, hospital, school, birth family home, foster home, outpatient clinic, community agency | • Diversity<br>• Professionalism<br>**Format:**<br>• Duration: 9 months in residential care settings<br>• Can be conducted in group format<br>• Designed with a parent and child components | • Peggy McElgunn, Esq. peggymcelgunn@comcast.net | |
| ***Sanctuary Model***<br>Rivard (2004)<br>Bloom (2005)<br>Farragher & Yanosy (2005) | • Population: not a client- specific intervention, but a full-system approach aimed at helping children in care who have experienced trauma<br>• Age: Adolescents<br>• Race: not specified<br>• Maltreatment type: not specified<br>• Settings: day treatment, residential care, hospital | **Essential Elements:**<br>• Culture of Nonviolence, Culture of Emotional Intelligence, Culture of Inquiry & Social Learning, Culture of Shared Governance, Culture of Open Communication, Culture of Social Responsibility, Culture of Growth and Change<br>**Format:**<br>• Not specifically designed to be conducted in a group<br>• Not specifically designed with child or parent component | **Manual:** No<br>**Training:**<br>• Number of days: 5 days followed by a 30-month consultation period<br>• Information session, organizational readiness assessment, training at Andrus Center<br>**Contact:**<br>B. Farragher & S. Bloom at Andrus Center for Learning & Innovation www.andruschildren.org | **Relevance to CW Population:** Medium<br>**Relevance to CW Outcomes:**<br>• Measures relevant to safety: No<br>• Measures relevant to permanency: No<br>• Measures relevant to child and family well-being: Yes |
| ***Stop-Gap Model***<br>McCurdy & McIntyre (2004) | • Population: children and youth (ages 6–17) with disruptive behaviors such as non-compliance, conduct problems, and aggression<br>• Race: not specified<br>• Maltreatment type: not specified<br>• Setting: residential care, hospital | **Essential Elements:**<br>Three Levels of Intervention:<br>• Environment-based (token economy, academic intervention, social skills training, problem-solving and anger management)<br>• Discharge-related (intensive case management, parent management training, community integration)<br>• Intensive intervention (Function-based assessment, Function-based behavior support planning)<br>**Format:** | **Manual**<br>There is no manual<br>**Training:**<br>• Number of days: 2 days<br>• On-site<br>**Contact:**<br>B. McCurdy, Devereux Center for Effective Schools | **Relevance to CW Population:** Medium<br>**Relevance to CW Outcomes:**<br>• Measures relevant to safety: No<br>• Measures relevant to permanency: No<br>• Measures relevant to child and family well-being: Yes |

| Model and Citations to Descriptive Articles | Target Population | Essential Model Components and Duration | Education and Training Resources | Child Welfare Relevance |
|---|---|---|---|---|
| | | • Was designed for group setting and to be conducted in a group<br>• Short-term model; anticipated duration is 90 days to 1 year<br>• Designed with a parent and child component | | |
| ***Re-ED Model***<br>Hobbs (1966)<br>Walker & Fecser (2002)<br>Valore, Cantrell, & Cantrell (2006). | • Population: troubled and troubling youths<br>• Race: not specified<br>• Maltreatment type: not specified<br>• Also developed for children with developmental delays<br>• Setting: residential care, birth family home, foster home, outpatient clinic, community agency, adoptive home, school | **Core Elements:**<br>• Wellness and strength orientation<br>• Ecologically-focused involvement<br>• Competence-based interventions<br>• Relationships seen as critical<br>• Natural agents in teaching and counseling roles valued and developed<br>• Ongoing questioning and data-based decision-making<br>**Format:**<br>• Designed for group format and for group setting<br>• Multiple group meetings daily, each held for specific purposes (planning, problem solving, evaluation, strengths focused meetings, etc.).<br>• Group meetings vary from fifteen minutes to more than an hour.<br>• Generally, short-term - 4–6 months of residential enrollment. | **Manual: yes**<br>**Training:**<br>• 2-day introductory training modules, but may be divided into 6 segments for programs needing different schedules.<br>• Training days/hours vary, depending on the needs of the agency, as indicated by their performance on the assessment factors from the Re-ED fidelity scale, and on their own objectives for Re-ED knowledge and implementation in what service type(s).<br>• On-site and regionally<br>**Contact:**<br>Mark Freado, M.A., Executive Director<br>American Re-Education Association | **Relevance to CW Population:**<br>Not rated<br>**Relevance to CW Outcomes:**<br>• Measures relevant to safety: No<br>• Measures relevant to permanency: No<br>• Measures relevant to child and family well-being: Yes |

**Table 3**

Group Home Models - Outcome Studies

| Study | Question/ Study Design | Setting/ Treatment Model | Sample Characteristics | Outcomes/ Measures | Key Findings |
|---|---|---|---|---|---|
| ***Positive Peer Culture*** | | | | | |
| Nas et al. (2005) | • Can EQUIP successfully alter delays in moral judgment, distortions, in social information processing, deficits in moral skills?<br>• Quasi experimental design w/treatment and non randomized comparison groups, pretest posttest<br>• No follow-up | • 3 high security correctional facilities in the Netherlands<br>• EQUIP (Equipping Youth to Help One Another") is based on PPC and ART<br>• E: received a modified version of EQUIP + usual care<br>• C: received usual care | • N = 108; E = 61 (31 at post), C = 47 (25 at post)<br>• Age: mean = 16.8; range = 12–21<br>• Gender: males<br>• Race: not provided<br>• Incarcerated for having committed one or more serious crimes, awaiting sentencing, or on supervision order | • SRM-SF: assessing moral judgment<br>• HIT questionnaire: measuring cognitive distortions (self- centeredness, minimizing mislabeling, blaming others, covert antisocial behavior/lying or stealing, overt antisocial behavior/physical aggression)<br>• IAP-SF- assessing moral beliefs and social skills under stressful circumstances | At post test:<br>• Non-significant difference in change of moral judgment and social skills between groups<br>• Significant difference in reduction of self- centeredness, minimizing/ mislabeling, blaming,<br>• Significant reduction in covert antisocial behavior<br>• No significant difference between groups observed for "assuming the worst" and overt antisocial behavior |
| Leeman, et al. (1993) | • Evaluated EQUIP effectiveness in experimental subjects<br>• Experimental design w/ treatment and randomized control group<br>• Follow-up at 1 year | • Medium-security correctional facility in Midwestern US<br>• EQUIP (Equipping Youth to Help One Another") is based on PPC and ART<br>• E: received EQUIP<br>• C1: simple<br>• C2: motivational | • N = 57; E = 20; C = 37<br>• Age: mean=16; range = 15–18;<br>• Gender: male<br>• Race: 38 white, 18 black, 1 hispanic<br>• Incarcerated for parole violations and less serious felonies | • Mediating process (SRM-SF- measuring moral judgment; IAP- SF- measuring social skills)<br>• Behavioral outcomes (institutional conduct, post-release recidivism) | Treatment group:<br>• Significant gains in institutional conduct and social skills in experimental group relative to control<br>• Experimental groups recidivism rate 1/2 of control groups at 6 months after discharge, over 1/3 at 1 year follow-up<br>• Non-significant difference in moral judgment between groups |
| Davis et al. (1988) | • Assessed changes in self-concept in youth, following PPC in residential treatment<br>• Pretest Posttest | • Residential treatment (Woodland Hills, MN)<br>• Average length of treatment: 8 months | • N=231 delinquent youths<br>• Age: 12–18<br>• Gender: 173 males, 58 female<br>• Race: 199 white, 11 black, 5 hispanic, 16 nat. american<br>• Adjudicated delinquent youth – some with identified psychiatric d/o | • Self-concept/Tennessee Self-Concept Scale | • Youth who completed the program rated themselves as having a more positive self- concept and a higher level of psychological adjustment on discharge |
| Sherer (1985) | • Examined PPC effectiveness | • PPC program in Israel | • N = 48; (E=15; C1=30; C2=10) | • MOTEC- measuring moral development (resistance to temptation, moral development, | At posttest: |

| Study | Question/ Study Design | Setting/ Treatment Model | Sample Characteristics | Outcomes/ Measures | Key Findings |
|---|---|---|---|---|---|
| | • Pre test post test w/non-randomized comparison groups<br>• No follow-up | | • Demographics: Mean age = 16.5 yrs, age range = 15 to 18 yrs<br>• Gang members who had volunteered for activities directed by a paraprofessional | feelings after offense, judgment about severity of punishment, confession) | • PPC group members scored higher on resistance to temptation and moral development<br>• PPC and control group-2 scored higher than control group-1 for feelings after offense and severity of punishment<br>• Non-significant difference observed for confession category |
| ***Teaching Family Model*** | | | | | |
| Lewis (2005) | • Tested TFM-effectiveness<br>• Experimental design w/ treatment and randomized control group Pretest with 2 posttests (at 5 months and 8.5 months after referral) | • Home based intervention for families in Utah<br>• E: TFM as part of a family preservation program; intensive services for 6 months with crisis follow up<br>• C: usual care family preservation services | • N = 150; 105 treatment, 45 controls<br>• Demographics: Mean age = 10.4 yrs, range = 3.9 to 17.3 years; 75% male; no race/ ethnicity data<br>• Children w/serious behavioral and school-related problems<br>• Controls referred by school or court | 63-item project developed questionnaire:<br>• Child behavior<br>• Child management<br>• Family functioning<br>• Parental effectiveness | Post-Intervention:<br>• Significant impact of E condition on overall youth and family functioning at both posttests<br>• No significant difference across groups for parental effectiveness/parent0child relationships due to control group's improved score over time |
| Larzelere et al. (2004) | • Systematic evaluation of TFM program<br>• Is TFM effective for girls as well as boys?<br>• Pretest posttest<br>• Follow-up at 3 months | • Boys Town Family home Program<br>• Group home with family-like treatment environment<br>• Average length of stay: 1.8 years (range: 31 days to 9.7 years) | • N = 440 discharged youth<br>• Demographics: Mean age = 14.9 yrs, range = 8.6 to 18.6 yrs; 38% female; 60% Cauc., 20% AfAm, 10% Hispanic; 3% Nat. Am., 6% multi-ethnic<br>• Excluded youth with <31 days in care<br>• Youth referred by juvenile justice, social or mental health services, family or self | • Behavior problems/CBCL<br>• Clinical diagnosis/DISC<br>• Restrictiveness of Living Environment/ROLES | • Most youth improved from intake to discharge and were functioning at levels similar to national norms at a 3- month f/ up<br>• Similar improvement for girls and boys<br>• Most youth discharged to less restrictive settings, but girls had greater reduction<br>• Significant improvements in problem behaviors observed<br>• Significant reductions in DSM-III and -IV diagnosis 12 months after intake |
| Jones & Timbers (2003) | • Examined TFM's effectiveness in reducing coercive behavior control interventions<br>• Pretest posttest w/ archival data | • 2 campus-based long term care institutions in Southeast US and Midwest (Barium | • N = not provided<br>• Demographics: Age range = 8 to 18 yrs; male and female clients | • Physical restraint<br>• Seclusion | After TFM introduction:<br>• Barium Springs: 40% reduction in physical restraint and 80% reduction in negative incidence reports |

| Study | Question/ Study Design | Setting/ Treatment Model | Sample Characteristics | Outcomes/ Measures | Key Findings |
|---|---|---|---|---|---|
| | • No follow-up | Springs and Bridgehouse Program) | • Data reviewed over 2 year period | • Negative incidence reports | • Bridgehouse program:75% reduction in physical restraint and seclusion |
| Thompson, et al. (1996) | • Evaluated short- and long-term educational effects of TFM program<br>• Quasi-experimental longitudinal design w/ treatment and non-randomized comparison group<br>• Follow-up at 4 years | • Home campus program | • N = 581; 497 treatment, 84 controls<br>• Demographics: Mean age = 14.4 yrs (treatment), 14.7 yrs (controls); all males<br>• Followed for 8 years | • Grade point average (GPA)<br>• Years of school completed<br>• HS diploma/GED<br>• Chance of college attendance<br>• Request for help w/homework from adult | Treatment group:<br>• Reported higher GPA while in residence than after discharge- (stayed higher than controls)<br>• Years of school completed at faster rate<br>• 83% completed high school/GED vs. 69% of controls<br>• Increased chance of college attendance while in residence- decreased after discharge<br>• Received more help with homework during and after program |
| Slot, et al. (1992) | • Determined effectiveness of cross-cultural replication of TFM<br>• Pre test post test, as well as experimental design w/treatment and non-matched and non-randomized control groups<br>• Follow-up at 6 months for Studies 1 and 2, unknown for study 3 | • Residential care homes and state-run institutions in Canada and the Netherlands | 3 separate studies:<br>• Study 1: N = 58 Dutch youth (TFM); Mean age = 16.6 yrs, range = 14.2 to 19.1 yrs<br>• Study 2: N = 529, 50 Dutch youth (TFM), 479 Canadian youth; Mean age = not available<br>• Study 3: N = 114, 57 Dutch youth, 57 Canadian youth; Mean age = 16.4 yrs, range = 14 to 18.3 yrs | • YEL- used in Study1: measures 3 dimensions of anti-social behavior and social competence<br>• Study 2: Offense levels<br>• Study 3: Problems, abilities for relationships outside families and for community participation | • Study 1:<br>– Improvements in overall adjustment, family adjustment, relationship w/ parents, offense rates, problems at home, social competence, ability for relationships outside family<br>– No improvement in community participation and employment rates<br>– Significant increase in post-treatment drinking<br>• Study 2:<br>– Lower rates of staying at the same offense level, 24% vs. 48% (comparison group)<br>• Study 3:<br>– Both groups improved, no significant differences<br>• LOS for TFM youth 270 days vs. 573 days for non- TFM youth<br>• TFM program costs 75% lower than comparison |

| Study | Question/ Study Design | Setting/ Treatment Model | Sample Characteristics | Outcomes/ Measures | Key Findings |
|---|---|---|---|---|---|
| Bedlington (1988) | • Examined treatment process features and milieu characteristics in TFM programs<br>• Quasi-experimental design w/treatment and non-equivalent comparison group<br>• No follow-up | • 17 Group Homes located in Kansas (9 non-TFM) | • N = 241; 91 treatment, 150 controls<br>• Demographics: Mean age = 15.2 yrs (treatment), 15.8 (controls); all males<br>• Court adjudicated<br>• Followed for 2 years | • Direct observation- measuring youth-adult interactions, proximity<br>• SRD- measuring delinquency<br>• Environmental positiveness | Treatment group:<br>• Rated higher in teaching, talking, and proximity<br>• Rated higher in fairness, pleasantness, concern, and effectiveness |
| Kirigin, et al. (1982) | • Assessed during and posttreatment effectiveness of TFM programs<br>• Quasi-experimental design with treatment and non-randomized comparison group<br>• Follow-up at 1 year | • 22 Group Homes (9 non-TFM) | • N = 192, 102 treatment, 90 controls<br>• Demographics: Age range = 12 to 16 yrs; 124 males, 68 females<br>• Youth assigned by court | • Number of alleged offenses,<br>• % of youth involved in offenses<br>• % of youth institutionalized | Treatment group:<br>• Decrease in offense rates during treatment<br>• No significant difference in institutionalization during and after treatment<br>• Consistently rated higher by youth |
| ***Sanctuary Model*** | | | | | |
| Rivard (2005) | • Examined implementation and short-term effects of the Sanctuary Model<br>• Experimental design w/ treatment and non-randomized control group<br>• No follow-up | • Residential treatment facilities in Northeastern US | • N = 158<br>• Demographics: Mean age = 15 yrs, age range = 12 to 20 yrs; 63% male;<br>• Youth with history of maltreatment | • CBCL<br>• TSCC<br>• Rosenberg Self Esteem Scale<br>• Nowicki-Strickland Locus of Control Scale<br>• Inventory of Parent and Peer Attachment (peer form)<br>• Youth coping index<br>• Social Problem Solving Questionnaire | Treatment group:<br>• Scored lower on measure of coping strategies that tend to increase interpersonal conflict<br>• Exhibited greater sense of personal control<br>• Reduced verbal aggression<br>• Scored better on support, spontaneity, autonomy, problem orientation, and safety at 6 months after intake |
| ***Stop-Gap Model*** | | | | | |
| McCurdy & McIntyre (2004) | • Summarizes elements of Stop-Gap program<br>• Experimental design w/ treatment and non-randomized control group<br>• No follow-up | • 2 units within a residential treatment center providing traditional RTC services and Environment Based Intervention (E-BI) in the Western US | • N = 50; 25 treatment, 25 control<br>• Demographics: Age range = 13 to 18 yrs; all females<br>• Presenting DSM-IV diagnosis of conduct<br>• Histories of sexual and/or physical abuse | • Mean therapeutic holds | Treatment group:<br>• Mean therapeutic holds per resident for E-BI condition decreased at 12 months<br>• Therapeutic holds under RTC condition increased |

| Study | Question/ Study Design | Setting/ Treatment Model | Sample Characteristics | Outcomes/ Measures | Key Findings |
|---|---|---|---|---|---|
| ***Re-ED Model*** | | | | | |
| Fields (2006) | • Examined preliminary effectiveness of Project Re-ED at residential treatment centers for children<br>• Pretest posttest<br>• Follow-up at 3 and 6 months | • State sponsored residential treatment facility (location unknown) | • N = 98<br>• Demographics: Mean age = 10.7, age range = 7 to 13; 13% female<br>• Majority diagnosed with ADHD, an externalizing disorder, or mood disorder<br>• Parent with substance abuse disorder | • CBCL- measuring the degree of severe behavioral symptoms<br>• BERS- assesses children's strengths (intra- and inter- personal)<br>• CASA- assesses range of services that children may use to address mental health problems (i.e. hospitalization) | • Younger age related to substantial change during treatment<br>• Longer LOS associated with more positive outcomes<br>• Significant improvement in CBCL and BERS during treatment and significantly better at follow-up compared to intake<br>• Shorter stay indicates lower likelihood of receiving recommended services after discharge |
| Hooper (2000) | • Addressed post-discharge outcomes of students from a program employing a formal Re-ED model<br>• Pretest posttest, cross-sectional<br>• Follow-up at 6, 12, 18, and 24 months | • State-run residential treatment program operating on Re-ED program in NC | • N = 111<br>• Demographics: Mean age = 15, age range = 13 to 16 yrs; 67% male<br>• 85% on some type of pharmacological management<br>• 80% experienced abuse in past<br>• Mean education level of mother's = 11$^{th}$ grade | 3 domains:<br>• Key demographics (age, race, gender, maternal education)<br>• Psychoeducational (verbal IQ, performance IQ, full-scale IQ, reading, math, writing)<br>• Social-behavioral (Child Behavior Checklist) | • 58% of students rated at performing satisfactorily across 24-month time span<br>• Nearly all students rated satisfactorily in at least one domain following discharge; 71% functioned satisfactorily in 2 of 3 domains at 24 months and 97% at 6 months<br>• Tendency for successful groups to include females, slightly younger, have higher IQ scores, better core reading and writing skills, fewer psychiatric diagnosis |
| Weinstein (1969) | • Examined the home and school adjustment of children referred to residential treatment facilities by child welfare workers<br>• Pretest Posttest with posttests at 6 and 18 months post-intervention | • Residential treatment programs utilizing Re- ED | • N=103<br>• Age: 10–11 at enrollment<br>• Race: Site 1 – 78% white; Site 2 – 96% white | Parent and teacher ratings on behavior problems, adjustment and academic functioning Measures:<br>• Symptom Checklist<br>• Social Maturity Scale<br>• Student Role Behavior Scale<br>• Semantic Differential | • At 6 months, reductions were noted in symptomatology and undesirable behaviors as well as improvements in social competence<br>• Teachers rated students as significantly improved on all dimensions after the Re-ED intervention |