

# New directions in behavioural family intervention with children: From clinical management to prevention

Matthew R. Sanders\*

Department of Psychiatry, University of Queensland

This paper examines the current status, limitations and future directions of behavioural family intervention with children. There is clear evidence that behavioural parent training is an effective treatment approach with a variety of childhood disorders, however some families fail to derive much benefit from existing treatment strategies. Recently researchers have examined ways of improving response to treatment of these difficult cases, including focus on the treatment of maternal depression, marital difficulties and the needs of single parent and reconstituted families. This paper highlights recent developments involving applications of parent training procedures to new clinical problems and discusses the importance of continuing research with a preventative focus.

Behavioural family intervention has had a major influence in the field of child psychopathology and has become a dominant paradigm in the treatment of many childhood disorders (Lochman, 1990). *Behavioural family intervention* is a generic term used here to describe a therapeutic process which aims to effect change in a child's behaviour and adjustment through corresponding changes in aspects of the family environment which maintain and reinforce the child's problem behaviour. This may include attempting to change parents' behaviour, including their marital relationship, and other aspects of family functioning such as the behaviour of siblings, grand parents, babysitters, the division of labor amongst care givers, and the provision of age appropriate activities in the home.

Contemporary behavioural family intervention had its roots within the applied behaviour analysis traditions, an approach which traditionally emphasised the importance of involving parents, teachers, and other significant persons (e.g., institution staff) as "mediators" or "behaviour change agents" to bring about lasting therapeutic change (Patterson, 1969;

Tharp & Wetzel, 1969). Behaviour analysts argue that effective intervention with children must access those aspects of the child's social environment that contribute to problem behaviour (Patterson, 1982; Wahler, 1969). There is substantial evidence which implicates parents and other family members in both the development and maintenance of a variety of disturbed child behaviours (e.g., Dadds, 1987; Hetherington & Martin, 1979; Patterson & Reid, 1984). Training parents to provide different social contingencies for specific problem behaviours as a therapeutic approach provides direct and immediate access to social interaction factors within the family which helps to maintain problem behaviours. Many of the management techniques used were directly derived from contemporary learning theory, particularly models of operant behaviour (Baer, Wolf & Risley, 1968; Skinner, 1953), and to a lesser extent from social learning theory (Bandura, 1977), and developmental theory (Bijou & Baer, 1961; Harris & Ferrari, 1983).

The clinical practice of behavioural family intervention comprises several different types of interventions each of which has its uses, depending on the nature and complexity of the presenting problem and its maintaining conditions (Sanders & Dadds, in press). Table 1 outlines the different therapeutic options in developing an intervention plan for a family.

Preparation of this paper was supported by Grant 880086 from the National Health and Medical Research Council, Australia. Address for correspondence: Matthew R. Sanders, PhD, Associate Professor in Clinical Psychology, Department of Psychiatry, University of Queensland, Herston, Q 4029, AUSTRALIA.

These interventions vary in complexity and the level of clinical sophistication required to effect change. They range from brief, focal interventions using written materials which parents implement with minimal or no training (Azrin & Foxx, 1974), to more complex intervention programs which involve concurrently dealing with a variety of other family issues (e.g., marital problems, maternal depression, financial difficulties, social isolation of parents) in addition to child management problems (e.g., Dadds, Schwartz & Sanders, 1987).

In recent times greater concern has been shown for matching appropriate interventions to the characteristics of the problem and its maintaining conditions (Blechman, 1981; Embry, 1984). For example, a parent who presents to her family doctor with a relatively uncomplicated problem of sleep disturbance in

an otherwise healthy two year old, may not require extensive skills training to implement a new night time routine that incorporates planned ignoring of crying once the child is placed in bed. A simple written protocol delivered by the family doctor may suffice. On the other hand if the child's mother and father frequently argue over the handling of the child's nighttime crying, an intervention to address the associated marital conflict may be essential to ensure the treatment plan is accurately implemented and the child's difficulty is resolved.

#### *How effective is behavioral family intervention?*

One of the most important contributions of the behavioural approach to family intervention to mental health research and clinical practice has been the process of ongoing

Table 1: *Therapeutic Options in Behavioural Family Intervention with Children*

	Description of Option	Intervention Methods	Possible Target Behaviours	Examples in Literature
1.	Written advice alone	Brief written instructions on how to solve specific child problems. No therapist contact.	Sleep disturbances, toilet training, supermarket behaviour problems.	Seymour, Brock, Doring & Poole (1989).
2.	Written advice plus minimal therapist contact.	Written instructions combined with brief therapist contact.	Mealtime behaviour problems, bedtime disruption.	Sanders, Dadds & Bor (1989).
3.	Written advice plus active training.	Combination of instructions, modelling, rehearsal and feedback focused on teaching parents how to manage specific problems.	Temper tantrums, non compliance.	Sanders, (1984).
4.	Intensive behavioural parent training.	Similar training methods to (3) above but focus is on parent-child interaction and the application of <b>diverse</b> parenting skills to a <b>variety</b> of child problems. Includes training in antecedent stimulus control and contingency management techniques.	Oppositional behaviour or aggression as a response class.	Forehand & McMahon (1981); Sanders & Plant (1989); Wells & Egan (1988).
5.	Behavioural family intervention.	May involve all of the above but in addition other family problems are addressed such as marital problems, depression, anger management.	Concurrent child and parent problems, severe conduct disorder, child depression, mixed depression and anxiety disorders.	Dadds, Schwartz & Sanders (1987); Wahler (1980).

empirical evaluation of treatment and attention to methodological and measurement issues (Graziano, 1977). During the past three decades behavioural family intervention has evolved as a viable empirically supported approach to working with behaviourally and emotionally disturbed children (Forehand & Long, 1988; Twardosz & Norquist, 1988; Webster-Stratton, Kalpacoff & Hollinsworth, 1988; Wells & Egan, 1988). The strongest empirical support for the efficacy of behavioural parent training is for children with oppositional behaviour problems.

There is substantial evidence from individual studies and several literature reviews that show that parents can produce clinically significant changes in their own and their children's behaviour when they receive appropriate instruction and training in the application of behaviour change procedures. Commonly employed techniques include the use of contingent social attention, praise, provision of enough activities, time out and response cost contingencies (Berkowitz & Graziano, 1972; Graziano, 1977; Kazdin, 1987). Problem behaviours treated include oppositional behaviours such as non compliance, temper tantrums and aggression (Forehand & McMahon, 1981; Sanders & Glynn, 1981); somatic complaints such as recurrent abdominal pain and headaches (Beames, Sanders & Bor, in press; Sanders, Rebetz et al., 1989); enuresis, encopresis, nervous habits such as nail biting, thumbsucking (Christensen & Sanders, 1985); common behaviour problems of otherwise normal children such as bedtime and mealtime problems (Dadds, Sanders & Bor, 1984; Hall et al., 1972; Sanders, Dadds & Bor, 1989); problems on shopping trips or in restaurants (Clarke et al., 1977); language problems (Laski, Charlop, & Schreibman, 1988); academic learning problems (McNaughton, Glynn, & Robinson, 1987); attention deficit disorders (Pisterman, et al., 1989); and children's fears and phobias (Ollendick & Francis, 1988). Much of this research supports the basic conclusion that when parents accurately implement behaviour change strategies, there is often a corresponding improvement in their child's behaviour and adjustment.

Consumer satisfaction research has shown that parents undergoing behavioural parent training are generally satisfied consumers and

view the specific behavioural techniques (e.g., praise, time out) taught in these training programs as both effective and acceptable (McMahon & Forehand, 1983; Webster-Stratton, 1989). Much less is known about how children view the treatment process although Dadds, Adlington and Christensen (1987) found that both nonclinic and oppositional children rated time out as an acceptable strategy for parents to use.

Several studies have examined the durability of treatment effects. (Forehand & Long, 1988; Sanders & James, 1983). In general these studies have shown good maintenance of treatment gain, particularly when the child's problem is not complicated by parent related difficulties or social adversity. A long term follow up study of adolescents who participated in the treatment program employed by Forehand and colleagues showed that on most measures of adolescent functioning, treated children were indistinguishable from a comparison group of non clinic adolescents. However, one third of the treated group had received other treatment since leaving the program and were performing significantly more poorly academically at school. These findings highlight the importance of school based intervention with disturbed children. The parents of the treated children were functioning just as well as parents of non clinic adolescents on measures of depression, marital adjustment, and parenting competence.

As the field of behavioural parent training has matured, both empirical evidence and clinical experience suggested that not all parents or families benefit to the same extent from treatment (Bernal, Klinnert & Schultz, 1980; Eyberg & Johnson, 1974; Johnson & Christensen, 1975; Wahler & Graves, 1983). These concerns have prompted two lines of inquiry. First, several studies sought to identify parental characteristics which predict successful treatment outcome (e.g., Furey & Basili, 1988; McMahon, Forehand, Griest & Wells, 1981). A second group of studies tried to clarify the obstacles to change, by defining more clearly the ecological context within which parents are expected to implement treatment strategies which may be associated to the problem of non responding (e.g., Sanders, Dadds & Bor, 1989; Wahler & Graves, 1983).

This research has shown that behavioural parent training has limited effects where there

is a concurrent unresolved marital problem (Dadds et al., 1987a), where the mother suffers from depression (McMahon et al., 1981), where the family lives in adverse socioeconomic circumstances (Dumas, 1986; Webster-Stratton, 1985), and where the mother has a low level of social support available to her (Wahler, 1980). These same factors are of course risk factors for the development of conduct problems in the first place (McGuire & Earls, 1991).

Several authors have made various proposals to improve the outcome of treatment with multidistressed families by expanding the focus of treatment (Wahler, 1980). This can include teaching parents self management skills (Griest, Forehand, Rogers, Breiner, Furey & Williams, 1982); providing concurrent marital therapy (Dadds et al., 1987a, b); providing training in the selection and arrangement of activities for children in high risk situations (Sanders & Dadds, 1982; Sanders & Christensen, 1985); anger management (Goldstein, Keller & Erne, 1985); social support training (Dadds & McHugh, in press); and the development of better home-school liaison for the management of school based behavioural problems (Blechman, 1984). To avoid the "shot gun" approach to therapy, adjunctive treatments are most usefully applied when there is clear evidence to link the additional problem (e.g., depression, marital distress) to the parents' capacity to alter dysfunctional parenting practices.

#### Recent innovations in behavioural family intervention

As the field of behavioural family intervention has matured, changes in the parent training technology to enhance its effectiveness with specific populations have emerged (e.g., Griest & Wells, 1983). These changes have included the development of strategies to promote the *generalization* and *maintenance* of changes in parental behaviour (Sanders & James, 1983); moving the emphasis of intervention away from controlling children's problem behaviour to a focus on *prosocial* behaviour; the identification of clinical and consultation skills used by effective therapists and the emergence of an ecological perspective in parent training.

#### *The generalization of parent behaviour and child behaviour*

It is generally recognised in behaviour

therapy research that effective treatment frequently requires helping the "client" generalize their skills to conditions outside the initial training setting where the skills were first learned (Stokes & Osnes, 1989). In the case of parents and children learning to deal with family conflict more effectively it might involve the parent applying the same behaviour change strategy used with one child in the family, with a sibling who displays similar problem behaviour (sibling generalization). There is some evidence to show that siblings of conduct disordered children often display levels of oppositional behaviour similar to referred children (Dadds, Sanders, Morrison, & Rebgetz, in press). Generalization enhancement might involve the parent learning to deal with out-of-home situations (e.g., in a supermarket) where a child is disruptive in the same or very similar ways (setting generalization). Alternatively, the child who is taught to speak pleasantly when making requests of one adult (e.g., the father) should be able to display similar polite behaviour when speaking to other adults such as the mother (person generalization). At the same time parents and children also need to learn to discriminate conditions where generalization is not desirable (Sanders, 1984). For example, using the same unmodified token reinforcement program with a teenager as used with a preschooler is likely to be ineffective.

Research indicates that generalized implementation of new parenting strategies is indeed a realistic and feasible clinical goal (e.g., Miller & Sloane, 1976; Koegel et al., 1978; Sanders & Dadds, 1982; Sanders & Glynn, 1981; Sanders & Plant, 1989). However, it appears that while some parents generalize their implementation of behavioural skills across different child care settings with no or relatively minimal prompting, others do not (Sanders & Glynn, 1981). Furthermore, there is some evidence that reductions in negative parental behaviour seem to generalize and maintain better than increases in positive or non aversive parent behaviour (Sanders & Dadds, 1982).

However, it is also possible that initial generalization effects, (e.g., across settings) may fail to maintain over time, or if they do, they may not be related to changes in parents' perceptions of their child's behaviour. These issues need to be clarified in future research.

*The importance of social competency*

Relatively little work has focused on using family interventions to promote socially competent or prosocial behaviour in children. These concerns have been reflected by a move within clinical child psychology research towards examining the determinants of social competence in children and their caregivers (e.g., Blechman, Tinsley, Carella, & McEnroe, 1985; Gardiner, 1987) and its relationship to behavioural disturbance.

Children who have low levels of social competence are rated by teachers as having higher levels of behavioural disturbance (Blechman et al, 1985). Reid (1987) found that behaviourally disturbed children not only differ from non clinical samples on measures of aversive child behaviour but on a variety of indices of positive parent-child interaction as well. He argued that techniques used to study the negative aspects of family life, could easily be modified to study the positive aspects. For example, Gardiner (1987) using home observations found that preschoolers with conduct problems spent significantly less time than non problem children in cooperative activities, joint activity and conversation with their mother. They also watched more television or time doing nothing, and less time in constructive play.

Training techniques that have been successfully used in teaching parents specific child behaviour change techniques can be adapted to teach parents how to model, prompt and reinforce prosocial or socially competent behaviours. Parents can be taught how to arrange activities in situations where children have little or nothing to do (e.g., travelling in the car) or when a parent is necessarily busy (e.g., in the bank). For example, Sanders and Dadds (1982) successfully taught mothers of oppositional children to arrange engaging activities for children in community situations in an effort to prevent problem behaviour. Important relationship enhancing skills include behaviours such as giving positive affection, soliciting children's opinion and ideas about family activities or the child's own experiences, prompting and reinforcing independence and decision making, learning social skills such as receiving and making telephone calls appropriately, or to issue and receive invitations from other children.

*The importance of process variables*

The importance of the therapist-client relationship in behaviour therapy has received increased attention in recent times (e.g., Dadds, 1989; Sanders & Dadds, in press; Sweet, 1987; Twardosz & Nordquist, 1988). Several authors have noted that there is an emerging convergence of opinion in the literature that successful clinicians working with families should be warm, empathic, supportive, encouraging and humorous. However, there is little direct empirical evidence which examines the relationship between therapist variables and outcome in behavioural parent training.

Descriptions of parent training technology have largely ignored important process variables that affect the acceptability (to parents) of the behaviour change techniques advocated by therapists. These techniques include a diverse range of clinical and interpersonal skills which provide the relationship context within which family intervention takes place. There is little doubt that therapists differ markedly amongst themselves in their effectiveness as parent trainers. Therapist variables involved in delivering behavioural family services involve development of effective techniques and not just a liberal dose of empathy, humor, warmth, and genuineness. These characteristics do not lead to replicable descriptions of specific clinical skills that exemplify competent clinical service to families.

Behavioural family intervention from a therapist's perspective involves a series of interrelated consultation tasks that occur within an interpersonal context of a therapeutic relationship. It is useful to differentiate between consultation tasks and consultation skills. The former being the process steps or tasks clinicians need to accomplish, the latter being the interpersonal, communication and therapeutic skills required of the clinician in carrying out the required tasks. While the precise form of the intervention required must depend substantially on the results of a comprehensive clinical assessment and behavioural analysis, the basic consultation tasks involved remain fairly constant. Table 2 summarises the key consultation tasks and associated clinical skills described by Sanders and Dadds (in press) required of therapists in carrying out an intervention plan.

Table 2: *Consultation Tasks and Clinical Skills*

Consultation tasks		Important Clinical Skills	
1.	Creating a therapeutic alliance	1.	Effective listening, empathic and other interviewing and rapport building skills.
2.	Negotiating an assessment protocol	2.	Translating vague or nonspecific concerns of clients into concrete specific goals for change
3.	Discussing assessment results	3.	Providing a rationale for data collection tasks
4.	Negotiating goals of intervention	4.	Negotiating with parents and school personnel regarding data collection requirements
5.	Designing intervention	5.	Conveying assessment results clearly and succinctly, dealing with client defensiveness and resistance
6.	Implementing treatment	6.	Formulating with the parent a shared explanation for the problem behaviour
7.	Monitoring and evaluating progress	7.	Conducting behavioural rehearsal with the parent as a skill training strategy
8.	Programming for generalization and maintenance of therapeutic gains	8.	Providing constructive negative feedback without being critical
		9.	Dealing with dependency problems

### *The contextual perspective*

The plea for ecologically orientated inquiry has been a strong trend within psychology over the past two decades. The ecobehavioural perspective in the family intervention field fundamentally argues for the importance of considering variables external to the moment-to-moment encounters between parent and child as important determinants of parenting, and hence the child's learning environment. Parental behaviour towards children is clearly a function of more than the pattern of antecedent and consequent events children provide contingent upon parental conduct, even though these contingencies are undoubtedly important. Variables such as a couple's marital interaction, occupational demands and stresses, interactions with relatives and neighbours, psychological state, and the family's financial resources influence either directly or indirectly a parent's behaviour towards their children. For example, a father who works 80 hours a week simply has very little time to devote to child rearing. A mother who experiences frequent criticism from a mother-in-law who looks after a child three days a week is exposed to a hostile environment

which may be difficult to avoid if alternative care is not readily available.

Wahler (1980) has argued that the conceptual basis for understanding family problems needs to be broadened to encompass the wider social context within which the family lives. For example, Wahler (1980) found that families characterised by poor parental education, single parenthood, residence in high crime areas, crowded living conditions and low incomes were at "high risk" for failure in behavioural parent training. High risk mothers reported lower rates of social contacts, lower rates of self-initiation of contacts, higher rates of interaction with relatives judged as aversive, lower rates of help for their children from friends, relatives and informal networks, and more frequent use of social agencies. Wahler argued that high risk mothers become socially insulated from the community support systems used by non-problem families for advice, guidance and feedback on child rearing matters.

Other examples of research examining parent-child relationships from an ecobehavioural perspective include an observational study by Sanders, et al. (1989). These authors

observed oppositional and non problem children in each of five child care settings in the home (breakfast, getting ready for school or preschool, a structured play interaction, bathtime and bedtime). The study aimed to identify contextual variables which predict levels of child oppositional behaviour and parent aversive behaviour. The results of a stepwise multiple regression analysis showed that while child deviant behaviour was best predicted by corresponding levels of maternal aversive behaviour, in 63% of individual cases the addition of contextual variables significantly increased the amount of unique variance explained.

These findings point to the need to determine more precisely the elements that define a parenting environment. Difficult children may be much more difficult for a parent to manage in some situations than others. Situations where a parent has competing demands on their time or attention, where there are time constraints (e.g., getting ready to go out), or where parents disagree amongst themselves on how to deal with the child, may represent high risk occasions for returning to maladaptive or coercive styles of interaction with children. However, it is unclear at present what combinations of contextual, cognitive and affective variables best defines a high risk parenting environment. Halford and Sanders (1989), in discussing marital interaction, defined high risk settings as "any combination of unfavourable contextual conditions which increase the probability of maladaptive interaction".

#### *Applications with new populations*

The versatility of a behavioural family intervention model has become more apparent with the expansion of the technology to new clinical problems. This expansion has involved more active involvement and preparation of parents in the individual treatment of children for problems such as obesity (Graves, Meyers & Clark, 1988), chronic pain and the management of chronic diseases such as cystic fibrosis (Sanders, Gravestock & Wanstall, 1990). For example, Sanders et al. (1989) trained children to employ self-coping strategies such as relaxation and distraction in managing episodes of recurrent abdominal pain. In addition, parents were trained to prompt and reinforce self-coping behaviour

and the absence of pain complaints. Other expansions have involved the direct application of parent training procedures to problem areas such as teaching parents to become remedial tutors for children with severe reading difficulties (e.g., McNaughton et al., 1981; Scott & Ballard, 1986), and teaching parents of depressed children more effective child management skills (Sanders, Dadds, Johnston, Cash, Morrison & Rebgetz, 1989).

#### *Future directions*

There are potentially useful avenues for future research that the field might benefit from pursuing. These issues are discussed below.

#### *Intervening across multiple settings*

Clinical treatments are often limited by the difficulty of intervening across a range of settings in the child's life. While it is somewhat easier to work with childhood problems that are limited to one setting, such as noncompliance in the home, many children's problems occur in a range of home and community settings, and generally this is predictive of a poorer prognosis for the child (Kazdin, 1987). A common frustration for clinicians working with children with generalized problems is the uncoordinated involvement of several agencies in the case.

Effective communication and coordination of services between agencies is critical to providing the most appropriate intervention while using minimum resources and cost to the community. All clinical services operate within a larger mental health system and resources need to be devoted to establishing effective liaison with related services (including staff training).

#### *Applying high power interventions*

Kazdin (1987) argued the power of a clinical intervention needs to be matched to the severity and chronicity of the presenting problem. Children referred to mental health services for adjustment problems present with a variety of complex interrelated problems in areas of social, emotional, language, cognitive and academic functioning. For example, children referred for disruptive behaviour problems such as aggression, non compliance, tantrums and destructiveness often have problems of impulse control as well as problems such as anxiety, depression, and poor school perfor-

mance. They may also be engaged in secretive or covert behaviours such as stealing, truanting, or lying, that bring them into conflict with school authorities or the police. Such children can be markedly lacking in social skills and have few friends. The child's behaviour is frequently bringing them into conflict with parents or other authority figures.

It is pointless to offer minimal interventions to children and their families whose problems are severe and persistent. Research into the effectiveness of various methods for training parents to implement child management skills has clearly indicated that a combination of information provision, modelling, rehearsal plus feedback is often required to teach basic parenting skills such as praising a child or using time out effectively.

Some behavioural family therapists are moving to more complex treatments (e.g., Robins & Foster, 1989) after finding that parent training is not successful with their clientele. However, some forms of parent training that involve giving written information, lectures and videotaped presentations may be inappropriate for more distressed families. Some families require more intensive home based training. For example, single parents having difficulties with nighttime routines (e.g., dinner time, bedtime), who have additional problems of lack of social support and confined living circumstances, often benefit from a training session followed by a series of home visits in which the therapist models skills, prompts her implementation of skills and provides supportive, constructive feedback is much more likely to succeed.

Where a child's problem is complicated by additional parent related problems such as marital distress, depression or alcohol abuse, a major future challenge is to develop and evaluate adjunctive interventions that attend specifically to the type of dysfunction evident in the family.

#### *Dealing with educational and learning problems*

Conduct problems and learning difficulties go hand in hand for many children and a comprehensive approach to helping distressed children must include a focus on the interaction of the two (Loeber, 1990). This has clear clinical implications.

First, it is important that child and family

therapists are either skilled in the assessment and treatment of childhood learning problems, or can liaise effectively with an agency that possesses these skills. Second, it is important that treatment planning incorporates a comprehensive focus on the interrelationship of learning and behavioural problems. Third, treatment effectiveness will be enhanced by cooperation between intervention agents who are operating in different settings, on different aspects of the child's problems. For example, a number of studies have provided evidence that reinforcement contingencies that span home and school settings are effective in decreasing generalized problems in children (Shapiro, 1987). A teacher may be trained to provide contingencies for parental reports of improvements in child behaviour in the home setting. Alternatively, a teacher can send home reports of the child's behaviour and achievement in the classroom to parents who have been trained to apply effective contingencies. Interventions such as these that span learning and home settings show considerable promise and further research and development should be encouraged in this area.

Research has also clearly established a link between poor peer relationships and behavioural and emotional problems in children (Rutter, 1989). A number of social skills programs are available for children who show problems of social withdrawal, depression, anxiety and interpersonal aggression (Hersen & Van Hasselt, 1987). However, little work has been done examining how these programs can be integrated with family based interventions for children whose problems span both domains.

#### *Developing programs for non traditional family structures*

The last few decades have witnessed an increase in the percentage of children who are raised in single parent, reconstituted and other alternatives to the traditional nuclear family (Emery, 1982). Further, there is evidence to indicate that these families have special needs and problems and that children in such families may be at risk for psychological problems (Emery, 1982; Fergusson, Horwood & Shannon, 1984). For example, one of the largest longitudinal studies of the relationship between childhood problems and family breakdown has indicated that (1) children who



experience marital breakdown are at higher risk for aggressive behavior and (2) this risk increases further if the parents reconcile or remarry rather than remain as single parents (Fergusson et al., 1984).

It is crucial that child and family clinicians are knowledgeable of and sensitive to the changing demographics of families that these next few decades are likely to witness. More data are needed to help delineate the special problems of children from single parent and reconstituted families. Further, program development that progresses hand in hand with the collection of data is sorely needed before we can offer comprehensive services to these children and their families.

#### *Applications combining individual and family focused interventions*

In general the model of family intervention described here focuses primarily on working with children through their parents. As children move towards adolescence some children benefit from concurrent individual sessions with the therapist. For example, children with somatic complaints such as abdominal pain of non organic origins, or depression or anxiety problems, can be taught self-coping, self-management or problem solving skills relevant to the problem. However, such individual therapy often works most effectively if parents can be trained to support and encourage children's application of skills they have acquired during individual therapy. Future research needs to determine what combinations of child and family focused treatments might be effective in the treatment of a variety of disorders.

#### *Towards prevention of anti-social behaviour*

Conduct disorder is a major social problem with enormous social and economic costs to the community judicial, social welfare and health care systems and as such constitutes a major public health problem (Offord, 1989). There has been renewed recent interest in the possibility of preventing anti-social behaviour in children, however there are few well controlled prevention trials (primary or secondary) in the area that deal specifically with behavioural or emotional problems (Boyle & Offord, 1989; McGuire & Earls, 1991).

Research has indicated that it is often the

families most in need of help with emotional and behavioural problems who do not have or seek access to mental health services (Sarason, 1974). Families who are socially and economically disadvantaged may be less likely to refer themselves for help and typically do not fare as well in treatment compared with middle class populations (Dumas, 1986; Webster-Stratton, 1985). Simply establishing clinics that offer comprehensive services in disadvantaged neighbourhoods will not solve the problem. Many families will not access the service, and for the ones that do, the service may be seen in a coercive, intrusive rather than a helpful light (Wahler, 1980).

Hence, an important area for future research is to improve our understanding of methods for encouraging high risk families to access available clinical services. Means of accessing lower socioeconomic group families include making information about services more readily accessible at points of contact with families for other reasons (e.g., in family doctors' waiting rooms, at day care, preschool and school facilities, at community health centres, neighbourhood centres, or through community service announcements on television and radio). Services are required that are low cost, readily accessible, on a continuing basis over the course of the child's early development, and that preferably are delivered as part of comprehensive "well child" care, to avoid any stigma associated with contacting helping agencies.

#### Conclusion

Behavioural family intervention is an effective intervention with many families seeking assistance for their child because of behavioural and emotional problems. Graziano (1977) argued that the approach has revolutionised clinical services for children and is now widely used in many clinical settings. This approach involves a consultative process which requires effective communication between the child's family, the therapist, and other significant persons in the child's social network. While the techniques of behaviour change described earlier constitute the therapeutic centrepiece of the intervention, the consultation process (including the methods of training parents) strongly influences the treatment's acceptability to parents and therefore has an important role in the overall therapeutic

strategy. Future research into behavioural family intervention should attempt to define the specific strategies therapists employ in dealing with issues such as client non adherence to therapeutic tasks and other types of client behaviour that create obstacles for the smooth progression of therapy. Skill in dealing with such problems should not be explained away as simply reflecting a therapist's experience, intuition, or personal qualities. Some strategies may work more effectively than others and are clearly worthy of empirical study in their own right.

There are several major challenges in delivering better treatment services to children and families. These concern the need to develop more effective ways of accessing the many high risk families who at present receive no treatment at all. Unless disadvantaged families can be encouraged to seek help it will not be possible to investigate methods of improving services to such families. Effective treatment is also limited to the extent that we can liaise with other relevant treatment agencies, and provide treatments across a range of childhood problems that are sensitive to the developmental aspects of the child's problems, and that are appropriately matched in power to the severity of the child's problems. While prevention of children's psychological and behavioural problems sounds an attractive alternative, it is by no means clear whether preventative interventions will in fact reduce the prevalence of children's behavioural problems in the community. More research and creative development of preventative programs is clearly needed to address the above limitations in the light of the changing demographics of families occurring in most western countries.

#### References

- Azrin, N.H., & Foxx, R.M. (1974). *Toilet training in less than a day*. New York: Simon & Schuster.
- Baer, D.M., Wolf, M.M., & Risley, T.R. (1968). Some current dimensions of applied behaviour analysis. *Journal of Applied Behaviour Analysis*, 1, 91-97.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Beames, L., Sanders, M.R., & Bor, W. (in press). The role of parent training in the cognitive behavioural treatment of children's headaches. *Behavioural Psychotherapy*.
- Berkowitz, B.P., & Graziano, A.M. (1972). Training parents as behaviour therapists: A review. *Behaviour Research and Therapy*, 10, 297-317.
- Bernal, M.E., Klinnert, M.D., & Schultz, L.A. (1980). Outcome evaluation of behavioural parent training and client centred parent counselling for children with conduct problems. *Journal of Applied Behaviour Analysis*, 13, 677-691.
- Bijou, S.W., & Baer, D.M. (1961). *Child development: A systematic and empirical theory: Volume 1*. New York, Appleton, 1961.
- Blechman, E.A. (1981). Toward comprehensive behavioural family intervention: An algorithm for matching families and interventions. *Behaviour Modification*, 5, 221-236.
- Blechman, E.A. (1984). Competent parents, competent children: Behavioural objectives of parent training. In R.F. Dangel & R.A. Olster (Eds) *Parent training: Foundations of Research and Practice*. New York: The Guildford Press.
- Blechman, E.A., Tinsley, B., Carella, E.T., & McEnroe, M.J. (1985). Childhood competence and behaviour problems. *Journal of Abnormal Psychology*, 94, 70-77.
- Boyle, M.H., & Offord, D.R. (1990). Primary prevention of conduct disorder: Issues and prospects. *Journal of the American Academy of Child and Adolescent Psychiatry*, 29, 227-233.
- 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, 171-178.
- Christensen, A.P., & Sanders, M.R. (1985). Habit reversal and differential reinforcement of other behaviour in the treatment of thumbsucking: An analysis of generalization and side effects. *Journal of Child Psychology and Psychiatry*, 28, 281-295.
- Clarke, H.B., Greene, B.F., Macrae, J.W., McNeas, M.P., Davis, J.L., & Risley, T.R. (1977). A parent advice package for family shopping trips: Development and evaluation. *Journal of Applied Behaviour Analysis*, 10, 605-624.
- Dadds, M.R. (1987). Families and the origins of child behaviour problems. *Family process*, 26, 341-357.
- Dadds, M.R. (1989). Child behaviour therapy and family context: Suggestions for research and practice with maritally discordant families. *Child and Family Behaviour Therapy*, 11, 27-44.
- Dadds, M.R., Adlington, F.M., & Christensen, A.P. (1987). Children's perceptions of time out. *Behaviour Change*, 4, 3-13.
- Dadds, M.R., & McHugh, T. (in press). Social support and treatment outcome in behavioural family therapy. *Journal of Consulting and Clinical Psychology*.
- Dadds, M.R., Sanders, M.R., Behrens, B.C., & James, J.E. (1987). Marital discord and child behaviour problems: A description of family interactions during treatment. *Journal of Clinical Child Psychology*, 16, 192-203.
- Dadds, M.R., Sanders, M.R., & Bor, W. (1984). Training children to eat independently: Evaluation of mealtime management training for parents. *Behavioural Psychotherapy*, 12, 356-366.
- Dadds, M.R., Sanders, M.R., Morrison, M., & Rebgetz, M. (In press). Child depression and conduct disorder II: An analysis of family interaction patterns in the home. *Journal of Abnormal Psychology*.
- Dadds, M.R., Schwartz, S., & Sanders, M.R. (1987).

- Marital discord and treatment outcome in the treatment of childhood conduct disorders. *Journal of Consulting and Clinical Psychology*, 55, 396-403.
- Dumas, J.E. (1986). Indirect influence of maternal social contacts on mother-child interactions: A setting event analysis. *Journal of Abnormal Child Psychology*, 14, 205-216.
- Embry, L.H. (1984). What to do? Matching client characteristic and intervention techniques through a prescriptive taxonomic key. In R.F. Dangel., & R.A. Polster (Eds). *Parent training: Foundations of Research and Practice*. New York: The Guilford Press.
- Emery, R.E. (1982). Interparental conflict and the children of discord and divorce. *Psychological Bulletin*, 9, 310-330.
- Eyberg, S.M., & Johnson, S.M. (1974). Multiple assessment of behaviour modification with families: Effects of contingency contracting and order of treatment problems. *Journal of Consulting and Clinical Psychology*, 42, 594-606.
- Fergusson, D.M., Horwood, L.J., & Shannon, F.T. (1984). A proportional hazards model of family breakdown. *Journal of Marriage and the Family*, 46, 539-549.
- Forehand, R.L., & Long, N. (1988). Outpatient treatment of the acting out child: Procedures, long term follow-up data, and clinical problems. *Advances in Behaviour Research and Therapy*, 10, 129-177.
- Forehand, R., & McMahon, R.J. (1981). *Helping the non-compliant child: A clinicians guide to parent training*. New York: Guilford.
- Furey, W.M., & Basili, L.A. (1988). Predicting consumer satisfaction in parent training for noncompliant children. *Behaviour Therapy*, 19, 555-564.
- Gardiner, F.E.M. (1987). Positive interaction between mothers and conduct-problem children: Is there training for harmony as well as fighting? *Journal of Abnormal Child Psychology*, 15, 283-293.
- Goldstein, A.P., Keller, H., & Erne, D. (1985). *Changing the abusive parent*. Champaign, IL: Research Press.
- Graves, T., Meyers, A.W., & Clark, L. (1988). An evaluation of parental problem solving training in the behavioural treatment of childhood obesity. *Journal of Consulting and Clinical Psychology*, 56, 246-250.
- Graziano, A.M. (1977). Parents as behaviour therapists. In M. Hersen., R.M. Eisler, & P.M. Miller (Eds.). *Progress in Behaviour Modification, Vol IV, pp. 251-298*. New York: Academic Press.
- Griest, D.L., & Wells, K.C. (1983). Behavioural family therapy with conduct disorders in children. *Behaviour Therapy*, 14, 37-53.
- Griest, D.L., Forehand, R., Rogers, T., Breiner, J., Furey, W., & Williams, C.A. (1982). Effects of parent enhancement therapy on the treatment outcome and generalization of a parent training program. *Behaviour Research and Therapy*, 20, 429-436.
- Halford, W.K., & Sanders, M.R. (1989). Behavioural marital therapy in the treatment of psychological disorder. *Behaviour Change*, 6, 165-177.
- Hall, R.V., Axelrod, S., Tyler, L., Grief, E., Jones, F.C., & Robertson, R. (1972). Modification of behaviour problems in the home with a parent as observer and experimenter. *Journal of Applied Behaviour Analysis*, 5, 53-64.
- Harris, S.L., & Ferrari, M. (1983). Developmental factors in child behaviour therapy. *Behaviour Therapy*, 14, 54-72.
- Hersen, M., & Van Hasselt, V.B. (1987). *Behaviour therapy with children and adolescents: A clinical approach*. New York: Wiley.
- Hetherington, E.M., & Martin, B. (1979). Family interaction. In H.C. Quay., & J.S. Werry (Eds). *Psychopathological disorders of childhood*. New York: John Wiley & Sons.
- Johnson, S.M., & Christensen, A. (1975). Multiple criteria followup of behaviour modification with families. *Journal of Abnormal Psychology*, 3, 135-154.
- Kazdin, A.E. (1987). *Conduct disorder in childhood and adolescence*. Newbury Park, CA: Sage.
- Koegel, R.L., Glahn, T.J., & Nieminen, G.S. (1978). Generalization of parent training results. *Journal of Applied Behaviour Analysis*, 11, 95-109.
- Laski, K., Charlop, M.H. & Schreibman, L. (1988). Training parents to use the natural language paradigm to increase their autistic children's speech. *Journal of Applied Behaviour Analysis*, 21, 391-400.
- Lochman, J.E. (1990). Modification of childhood aggression. In M. Hersen, R.M. Eisler, R.M. Miller (Eds.). *Progress in behaviour modification. (Vol. 25, pp. 47-85)*. New York: Academic Press.
- Loeber, R. (1990). Development and risk factors of juvenile antisocial behaviour and delinquency. *Clinical Psychology Review*, 10, 1-41.
- McGuire, J., & Earls, F. (1991). Prevention of psychiatric disorders in early childhood. *Journal of Child Psychology and Psychiatry*, 32, 129-154.
- McMahon, R.J., & Forehand, R.L. (1983). Consumer satisfaction in behavioural treatment of children: Types, issues and recommendations. *Behaviour Therapy*, 14, 209-225.
- McMahon, R.J., Forehand, R., Griest, D.L., & Wells, K.C. (1981). Who drops out of therapy during parent behavioural training. *Behaviour Counselling Quarterly*, 1, 79-85.
- McNaughton, S., Glynn, T., & Robinson, V.M.J. (1987 in text). *Parents as remedial tutors: Issues for home and school*. Wellington, New Zealand: NZCER.
- Miller, S.J., & Sloane, H.N. (1976). The generalization of parent training across stimulus settings. *Journal of Applied Behaviour Analysis*, 9, 355-370.
- Offord, D.R. (1989). Conduct disorder: Risk factors and prevention. In *Prevention of Mental Disorders, Alcohol and Other Drug Use in Children and Adolescents* (DHHS Publication No. ADM 89-1646). Washington, DC: Alcohol, Drug Abuse and Mental Health Administration, pp. 273-307.
- Ollendick, T.H., & Francis, G. (1988). Behavioural assessment and treatment of childhood phobias. *Behaviour Modification*, 12, 165-204.
- Patterson, G.R., (1969). Behavioural techniques based on social learning: An additional base for developing behaviour modification technologies. In C.M. Franks (Ed). *Behaviour therapy: Appraisal and status (pp.341-374)*. New York: McGraw-Hill.
- Patterson, G.R. (1982). *Coercive family process*. Eugene, OR: Castalia Pres.
- Patterson, G.R., & Reid, J.B. (1984). Social interactional processes in the family: The study of the moment by moment family transactions in which human social development is embedded. *Journal of Applied Developmental Psychology*, 5, 237-262.
- Pisterman, S., McGrath, P., Firestone, P., Goodman, J.T., Webster, I., & Mallory, R. (1989) Outcome of parent

- mediated treatment of preschoolers with attention deficit disorder with hyperactivity. *Journal of Consulting and Clinical Psychology*, 57, 628-635.
- Reid, J.B. (1987). Social-interactional patterns in families of abused and non-abused children. In C. Zahn Waxler, M. Cummings & R. Iannotti (Eds). *Altruism and aggression: Biological and social origins*. Cambridge: Cambridge University Press.
- Robins, A.L. & Foster, S. (1989). *Negotiating parent-adolescent conflict. A behavioural family systems approach*. New York: Guilford Press.
- Rutter, M. (1989). Pathways from childhood to adult life. *Journal of Child Psychology and Psychiatry*, 30, 23-51.
- Sanders M.R. (1982). The effects of instructions, feedback and cueing procedures in behavioural parent training. *Australian Journal of Psychology*, 34, 53-69.
- Sanders, M.R. (1984). Clinical strategies for enhancing generalization in behavioural parent training: An overview. *Behaviour Change*, 1, 25-35.
- Sanders, M.R., & Christensen, A.P. (1985). A comparison of the effects of child management and planned activities training in five parenting environments. *Journal of Abnormal Child Psychology*, 13, 101-117.
- Sanders, M.R., & Dadds, M.R. (1982). The effects of planned activities and child management training: An analysis of setting generality. *Behaviour Therapy*, 13, 1-11.
- Sanders, M.R., & Dadds, M.R. (In press). *Behavioural family intervention*. New York: Pergamon Press.
- Sanders, M.R., Dadds, M.R., & Bor, W. (1989). A contextual analysis of oppositional child behaviour and maternal aversive behaviour in families of conduct disordered children. *Journal of Clinical Child Psychology*, 18, 72-83.
- Sanders, M.R., Dadds, M.R., Johnston, B., Cash, R., Morrison, M., & Rebgetz, M. (1989). *Cognitive-behavioural treatment of childhood depression: A therapists manual*. Unpublished manuscript, University of Queensland.
- Sanders, M.R., & Glynn, T. (1981). Training parents in behavioural self management: An analysis of generalization and maintenance. *Journal of Applied Behaviour Analysis*, 14, 223-237.
- Sanders, M.R., Gravestock, F., & Wanstall, K. (1990). *Cystic Fibrosis: A parent's handbook for dealing with compliance problems*. Brisbane: Behaviour Research and Therapy Centre, University of Queensland.
- Sanders, M.R., & James, J.E. (1983). The modification of parent behaviour: A review of generalization and maintenance. *Behaviour Modification*, 7, 3-27.
- Sanders, M.R., & Plant, K. (1989). Programming for generalization to high and low risk parenting situations in families with oppositional developmentally disabled preschoolers. *Behaviour Modification*, 13, 283-305.
- Sanders, M.R., Rebgetz, M., Morrison, M., Bor, W., Gordon, A., Dadds, M.R., & Shephard, R. (1989). Cognitive-behavioural treatment of recurrent nonspecific abdominal pain in children: An analysis of generalization and side effects. *Journal of Consulting and Clinical Psychology*, 57, 294-300.
- Sarason, S.B. (1974). *The psychological sense of community: Prospects for a community psychology*. San Francisco: Jossey-Bass.
- Scott, J.M., & Ballard, K.D. (1986) Training parents and teachers in remedial reading procedures for children with learning difficulties. In K. Wheldall, F. Merrett., & T. Glynn (Eds.). *Behaviour analysis in educational psychology*. London: Croom Helm.
- Seymour, F.W., Brock, P., During, M., & Poole, G. (1989). Reducing sleep disruptions in young children: Evaluation of therapist-guided and written information approaches. A brief report. *Journal of Child Psychology and Psychiatry*, 30, 913-918.
- Shapiro, E.S. (1987). Academic problems. In M. Hersen & V.B. Van Hasselt (Eds). *Behaviour therapy with children and adolescents: A clinical approach*, (pp. 362-384). New York: John Wiley & Sons.
- Skinner, B.F. (1953). *Science and human behaviour*. New York: MacMillan.
- Stokes, T.R. & Osnes, P.G. (1989). An operant pursuit of generalization. *Behaviour Therapy*, 20, 337-355.
- Sweet, A.A. (1987). The therapeutic relationship in behaviour therapy. *Clinical Psychology Review*, 4, 253-272.
- Tharp, R.G., & Wetzel, R.J. (1969). *Behaviour modification in the natural environment*. New York: Academic Press.
- Twardosz, S., & Nordquist, V.M. (1988). Parent training. In M. Hersen., & V.B. Hasselt (Eds.), *Behaviour therapy with children and adolescents: A clinical approach*. New York: Wiley.
- Wahler, R.G. (1969). Oppositional children: A quest for parental reinforcement control. *Journal of Applied Behaviour Analysis*, 2, 159-170.
- Wahler, R.G. (1980). The insular mother: Her problems in parent-child treatment. *Journal of Applied Behaviour Analysis*, 13, 207-219.
- Wahler, R.G., & Graves, M.G. (1983). Setting events in social networks: Ally or enemy in child behaviour therapy. *Behaviour Therapy*, 14, 19-36.
- Webster-Stratton, C. (1985). Predictors of outcome in parent training for conduct disordered children. *Behaviour Therapy*, 16, 223-243.
- Webster-Stratton, C. (1989). Systematic comparison of consumer satisfaction of three cost effective parent training programs for conduct problem children. *Behaviour Therapy*, 20, 103-115.
- Webster-Stratton, C., Kalpacoff, M., & Hollinsworth, T. (1988). Self-administered videotape therapy for families with conduct problem children: Comparison with two cost effective treatments and a control group. *Journal of Clinical and Consulting Psychology*, 56, 558-566.
- Wells, K.C., & Egan, J. (1988). Social learning and systems family therapy for childhood oppositional disorder: Comparative treatment outcome. *Comprehensive Psychiatry*, 29, 138-146.