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DIRECTIVE PARENTAL COUNSELING: SETTING, SIBLING, BEHAVIOURAL, REINFORCING AGENT, AND TEMPORAL GENERALITY.

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Directive Parental Counseling: Setting, Sibling, Behavioural, Reinforcing Agent, and Temporal Generality

by
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ABSTRACT

The present study was designed to investigate generalization effects of the Directive Parental Counseling Programme (Holland, 1976). Behavioural, setting, sibling, reinforcing agent, and temporal generality were investigated. The subjects were sixty-three mothers representing families from diverse socio-economic backgrounds. Target problem-behaviour children were not pre-selected with the exception that they be between the ages of 2 - 13. Thirty-six mothers comprised the treatment group while 26 mothers formed the control group. Parents completed a battery of tests which included two behavioural checklists, a parent attitude survey and a marital relationship survey. Parents also recorded the occurrence of three self-selected problem behaviours manifested by the target problem-behaviour child and one sibling. Behaviour recording data and behaviour checklists were completed at baseline, post-treatment, and three months following treatment. Analysis of data revealed that treatment group parents recorded significant change on a number of measures in contrast to the control group. Target problem behaviours were significantly reduced following the implementation of the formal programme. In addition, non-targeted behaviours evidenced a significant reduction for both the target child and a sibling. There were significant changes in the desired direction on a number of scales on the behaviour checklists following treatment. Teachers perceived behavioural changes in the

school setting. Parents' perceptions of themselves as "effective parents" improved. Finally, it was noted that changes observed at post-treatment assessment were maintained after three months, as were additional desireable behavioural changes. These findings offer support for behavioural, sibling, setting, reinforcing agent and temporal generality. Future areas of research relating to the Directive Parental Counseling Programme were discussed.

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CHAPTER I

INTRODUCTION

Few people would disagree with the statement that those who have responsibility for a task should be given the technical and practical information relevant to that job. This belief is presently being emphasized by a variety of mental health professionals who continually see the pathetic results of children raised in environments that are physically and psychologically harmful and often devastating to the child's welfare. Parental skills and responsibilities are presently the focus of much research. Berkowitz and Graziano (1972, p. 299) state that this emphasis is based upon the following assumptions: "(1) parents have assumed the major moral, ethical and legal responsibility for their children; (2) they generally have the greatest degree of contact with their children and greatest control over their natural environments; (3) they are typically both willing and fully capable of assuming and carrying out detailed therapeutic measures." This belief is certainly shared by many other researchers and clinical practitioners from an assortment of theoretical backgrounds (Auerbach, 1968; Carkhuff & Bierman, 1970; Dinkmeyer & McKay, 1976; Ginott, 1957; Gordon, 1970; Holland, 1976; Patterson, 1974a; Schwartz, 1950).

Reflecting the belief that parents are instrumental in effecting change in their children are the many treatment programs that have been devised to train parents as change agents for their own children.

Indeed, the shortage of mental health professionals has left us no other choice than to put therapy where the problem is -- in the home (Wagner, 1968).

Comprehensive review papers have been published which outline the scope and status of research in this area (Cone & Sloop, 1971; Johnson & Katz, 1973; Reisinger, Ora & Frangia, 1976). The following paragraphs offer but a brief overview of research related to using parents as change agents for their children.

The inclusion of one or both parents as change agents in the therapy of their own children dates back almost to the birth of contemporary psychological treatment. Guerney (1969) has noted that Freud (1950) may have been the pioneer in this area with his treatment of the phobias of "Little Hans", a five year old boy. However, recent attention to the question of using parents as change agents appears to be related to professional manpower shortages, the doubts surrounding the efficiency and effectiveness of traditional treatment approaches, and the move to employ paraprofessionals as change agents. Certainly, the manpower shortage has not diminished (Albee, 1970; Arnhoff, 1968; Arnhoff, Rubinstein, Schriver & Jones, 1969). Traditional treatment methods have been repeatedly assailed as inefficient (Levitt, 1957, 1963; Shepherd, Oppenheim & Mitchell, 1966). Paraprofessionals have been and continue to be used as change agents (Atthowe & Krasner, 1968; Matarazzo, 1971; Tharp & Wetzel, 1969). Reisenger et al., (1976) describe three treatment models which employ parents in the therapeutic process. These models include the psychodynamic, client-

centred, and behavioural approaches to therapy. In addition to programmes based upon these three models, a number of parent training programmes have also been devised which are more eclectic in nature and combine various theoretical premises.

Parent Training Treatment Models

Psychodynamic model. The psychodynamic literature presents a rather diverse picture of the role of parents in therapy of their own children. Parents have been employed in the role of passive observers of the therapeutic process to enhance therapeutic change and to help the parents gain an understanding of the psychodynamics of their child (Kolansky, 1960; Schwartz, 1950). Parents have occasionally been used as primary change agents, even to the extent of being trained to interpret the child's unconscious conflicts (Jacobs, 1949; Ruben & Thomas, 1947). Collaborative treatment in the form of mother and child being seen individually but simultaneously by the same therapist has been employed (Noyes & Colb, 1963; Szurek & Berlin, 1956). Although parents are occasionally used in the therapeutic process there appears to be few systematic, popular treatment programmes or techniques regarding their use. Attempts to define guidelines have been made (Furman, 1969; Kestenberg, 1969) but ultimately these authors conclude that the final decision regarding type of parental involvement must depend upon the individual child and his family.

It is understandable that parents are not often taught analytic techniques and used as primary therapists when one considers the

complexity of psychoanalytic theory and technique. At best most psychoanalysts who use parents in the treatment of their children simply attempt to have the parent understand the dynamics of their child or focus upon analyzing and interpreting unconscious conflicts of the parent as he or she relates to the child. Therefore, the practice of using parents as change agents for their children is not a popular form of treatment using the psychodynamic model.

Client-centred model. Initial, early emphasis in client-centred treatment for children was focussed upon seeing individual children in play therapy sessions (Axline, 1947, 1964; Moustakas, 1953). Recently however, a new form of treatment involving parents has been introduced. Under the label "filial therapy", parents have been trained to act as client-centred therapists in structured play therapy sessions with their children, in their own homes (Guerney, 1964, 1969; Stover & Guerney, 1967). Minimal quantitative evaluation has been collected to date but the controlled outcome studies that have been carried out, demonstrate that children do change in response to this treatment programme. Further assessment of controlled outcome studies is required before the efficacy of this programme can be demonstrated.

An alternate focus of parent training using the client-centred approach has been explored. Based upon the assumption that the child's disturbance is a function of the level of interpersonal functioning between the parent and child, an integrated didactic and experiential programme has been devised (Carkhuff, 1969a, 1969b; Carkhuff & Bierman, 1970). Emphasis in this programme is upon teaching parents to be

effective communicators using the responsive dimensions of empathy, respect, and concreteness, and the initiative dimensions of genuineness, confrontation, and immediacy (Carkhuff & Bierman, 1970, p. 158). Although the programme displays some signs of promise, we are again confronted with the fact that there is little empirical support to substantiate claims that it is an effective way of using parents to change the behaviours of their children.

Behavioural model. The third model that utilizes parents as change agents stems primarily from operant principles generally subsumed under the term "experimental analysis of behaviour" (Skinner, 1964). Behaviour modifiers attempt to develop and evaluate techniques designed to effect lasting changes in the organisms interaction with his environment, to the point that these changes will subsequently be maintained by the natural environment. This approach to treatment focusses upon the parent as the point of intervention. Typically, parents are taught general operant learning techniques to enable them to modify unwanted behaviours of their children in the home environment. A wide range of children's behaviour has been altered by applying the principles of operant conditioning in a systematic manner. Retarded behaviour (Stabler, 1973; Tavormina, 1975), psychotic behaviour (Mathis, 1971), behaviour related to brain injuries (Salzinger, Feldman, & Portnoy, 1970), aggressive behaviour (Patterson, 1974b; Patterson, Reid, Jones, & Conger, 1975; Wiltz & Patterson, 1974), and general compliance behaviours (Forehand & King, 1977; Karoly & Rosenthal, 1977; Rinn, Vernon, & Wise, 1975), are but a few of the types of behaviour that operant programmes have

successfully modified. A larger selection of references are available in the review articles previously cited and in other review articles that deal specifically with behaviour modification techniques (Berkowitz & Graziano, 1972; Gelfand & Hartmann, 1968; Grossberg, 1964; Keeley, Shemberg, & Carbonnel, 1976; Pawlicki, 1970).

The diversity of the behaviour modification programmes does not end with the array of inappropriate behaviours treated using this approach. Programmes have been used with intact families, single parents, and parents of exceptional children. Parents have been taught in the home, agency, parent training lab, and hospital. Numerous studies have been conducted resulting in a vast array of conclusions which are often supportive of one another but are occasionally conflicting. Certainly, it is premature to define with any degree of specificity, the limitations of this approach to parent training. Much more research is required. Promise is being demonstrated however, as current research demonstrates more concern for methodological precision.

Combined models. Tavormina (1974) describes the reflective or feeling parent training model which appears to be based upon a number of therapeutic orientations including experiential, psychodynamic, and client-centred approaches. Treatment programmes within this category typically emphasize and teach methods that enhance parental awareness, understanding and acceptance of their child's feelings and rights (Auerbach, 1968; Ginott, 1957; Gordon, 1970; Hereford, 1963). Feelings are stressed as mediation variables to effect changes in the child's behaviour and the parent-child interaction. Shared goals of this

treatment model include the following:- 1) understanding the child's needs at various stages of growth; 2) examining the expectations of participants as parent; 3) focussing on feelings within the parent-child interaction; and, 4) helping parents to recognize their children as reacting and feeling individuals (Tavormina, 1974).

Still another group of parent training programmes, attempt to combine aspects of the behavioural model with those of the reflective model (Dinkmeyer & McKay, 1976; Sadler & Seyden, 1976; Sadler, Seyden, Howe, & Kaminsky, 1976). These programmes stress both the affective relationship between the parent and the child and the behavioural manifestations that interfere with this relationship.

Few studies have been conducted to assess the effectiveness of one parent training programme as compared to another. This may in fact be difficult because the criteria for success differs for the various models. Parental cognitions and feelings are stressed in some models while the child's inappropriate behaviour is typically stressed in others. Using assessment instruments to evaluate both types of criteria, Tavormina (1975) observed that behavioural training groups demonstrated more change on both types of measures as compared to either a reflective group or a control group. Anchor and Thomason (1977) however, in a similar comparison of models found no significant differences between the two groups, nor indeed did they find any treatment effect at all. Certainly additional comparative studies are required before any firm conclusions can be made about the effectiveness of one method as compared to another. Future research may well reveal

that both treatments are effective when dealing with specific problems or populations.

Summary. In the preceding paragraphs an attempt has been made to present an overview of the models and related research that have been used to formulate treatments that employ parents as change agents for their children. The purpose of the present research is to employ a specific programme within the behavioural framework to explore various aspects of change that result from its use by parents within the home setting. This programme is the Directive Parental Counseling Programme (Holland, 1976). In subsequent paragraphs specific areas of behavioural research related to training parents as change agents for their children, will be reviewed.

Current Status of Behaviour Therapy

Approximately twenty years ago, Skinner (1958) correctly noted that the experimental analysis of behaviour was only slowly reaching into the field of human behaviour. This has certainly changed today as few areas of psychology have escaped being influenced in one way or another by operant theory and techniques. During the past decade a number of articles have been published describing the explosive growth of behaviour therapy and the use of operant techniques in behaviour modification programmes. This explosive growth has been noted in regards to university courses teaching behaviour therapy (Benassi & Lanson, 1972), behaviour therapy books published (Ernst, 1971), and published behaviour therapy outcome studies (Bergin, 1971). A recent

report has compared the publication activity of behaviour therapy, psychoanalysis and client-centred therapy (Hoon & Lindsley, 1974). These authors used the index labels from the Psychological Abstracts to compare the publication activity growth rates of the three therapies. They reported that the growth rates appeared to be exponential in all three therapies. However, client-centred therapy publications do not maintain as great a growth rate as the other two. Further, the number of annual behaviour therapy publications recently has surpassed those of psychoanalysis for the first time.

Parent Training in Behaviour Modification Techniques

Andrasik & Murphy (1977) report that no fewer than 39 behaviour modification training manuals and primers are presently on the market. These manuals have been shown to be appropriate for a broad range of parental types (Arkell, Kubo, & Meunier, 1976). Why has the popularity of behaviour therapy and behaviour modification programmes been growing at such an explosive rate? Cone & Sloop (1971) refer to the repeated failure to demonstrate the effectiveness of traditional forms of treatment. Walder et al., (1972) emphasize the fact that the behaviour modifier has available research-documented rules for changing behaviour. Eysenck (1960) refers to the fact that behaviour therapists have a rational method of treatment based upon popular and experimentally-grounded, scientific principles. Whatever the hypothesis, there is indeed little question that the popularity of behaviour therapy and behaviour modification techniques is continually growing.

Research on operant programmes with families has certainly maintained the explosive pace demonstrated in other areas of behaviour therapy. Twenty years ago one would have been unable to find more than a few isolated studies using operant techniques with parents. Today there are numerous studies in the area and it does not appear that interest in this area will diminish for some time to come.

Studies in this area can be separated into three basic groups: a) individual case study reports where behavioural data is either collected in the home or a laboratory (Allen & Harris, 1971; Graziano, 1971; Holland, 1969; O'Leary, O'Leary, & Becker, 1967; Peine, 1969; Russo, 1964; Sloan, Johnson, & Bijou, 1967; Straughan, 1964; Williams, 1959; Zeilberger, Sampen, & Sloan, 1968); b) programmes involving moderately sized groups where change has been assessed by parent collected data and/or professional observers in the home (Ferber, Kelly, & Shemberg, 1974; Kovitz, 1976; McPherson & Samuels, 1971; Patterson, 1974b; Patterson, Cobb, & Ray, 1973; Rinn et al., 1975; Salzinger et al., 1970); and, c) programmes involving large sample projects where data is collected either by the parents or professional observers (Tharp & Wetzel, 1969; Walder et al., 1972; Wahler & Erickson, 1969).

Bachrach & Quigley (1966) describe the life cycle of treatment techniques as follows: a) case study reports, b) comparing the effectiveness of one technique with other techniques, c) examining the long term effects of treatment, and, d) reevaluating the data and investigating related issues. Certainly, the abundance of case study reports has demonstrated the diversity of operant programmes across an

ever increasing range of problems, populations, systems, and situations. Comparative studies are beginning to be conducted in terms of different types of behavioural programmes (Eyberg & Matarazzo, 1975; Kovitz, 1976; Mash et al., 1976; Nay, 1975), and in terms of alternative models (Anchor & Thomason, 1977; Tavormina, 1975). Studies providing long term follow-up assessments are beginning to be published (Merbaum, 1973; Patterson, 1974; Patterson & Reid, 1973). Increasing concern has been shown for the generality of treatment effectiveness (Conway & Bucher, 1976; Patterson, 1974a & 1974b; Lavigueur et al., 1973). Multiple outcome measures are being increasingly used to evaluate programme effectiveness (Eyberg & Johnson, 1974; Patterson, 1974b, Patterson, Reid, Jones, & Conger, 1975; White & Erickson, 1976). These investigations do point to the fact that research in this area is quickly progressing through the previously-mentioned life cycle and is becoming more refined and sophisticated. As far as research has advanced however, there is little doubt that we have but begun to demonstrate how best to implement and use operant programmes with parents. Continued research is required to replicate past findings and explore new areas or aspects of operant treatment programmes for parents. Critical issues continue to create controversy and debate and these issues must be fully explored and resolved. Only then can judgements be made concerning the scope of treatment effectiveness.

Research Issues

Kazdin (1973b) reports that the extensive use of reinforcement programmes in applied settings has led to experimentation that often

fails to consider potential problems in design. This may be understandable in view of the fact that in applied research an experimenter does not have complete mastery over all variables and cannot schedule treatments and measurements for optimal statistical efficiency. However, it should certainly be the goal of all research whether it be in controlled, experimental environments or in the more intransigent applied setting, to effect as methodologically sound a design as experimental conditions permit. Several treatises with excellent descriptions of design in this area of research, have been published (Barlow & Hersen, 1973; Campbell & Stanley, 1966; Kazden, 1973b; Risley & Wolf, 1972; Sidman, 1960, 1962). Barlow & Hersen (1973) review the advantages and disadvantages of single case versus group, experimental designs. Campbell & Stanley (1966) review various experimental designs that are appropriate for applied research. Kazdin (1973b) briefly outlines the rationale for the within-group approach and describes various types of these designs that are used in applied research. Sidman (1960, 1962) reviews the theoretical and logical issues or research strategy related to single-case, experimental designs in both general psychology and operant psychology. Risley & Wolf (1972) look at factors to consider in assessing behaviour change over time. The overriding principle that appears to be characteristic of all the review articles is that the experimental design should be constructed to ensure that one will be able to determine the operations that relate functionally to the performance of a particular behaviour.

It has often been stated that adequately designed behaviour therapy

research should meet the following criteria: a) have a control group; b) plan for systematic variation of the treatment; c) collect baseline data; d) arrange for unbiased observations of behaviour; and, e) collect follow-up data (Breger & McGaugh, 1965; Eysenck, 1961; Gelfand & Hartmann, 1968; Pawlicki, 1970). Pawlicki (1970) also emphasizes the need for a detailed description of treatment procedures in order to ensure that replication attempts can be performed by other investigators.

In addition to the above-mentioned design criteria, a number of treatment issues have also been subjects of controversy. The issues relevant to the present research are as follows: a) group versus individual treatment; b) type of instructional techniques; c) cost efficiency; d) sample size; e) generalization effects; and, f) paraprofessionals as parental counsellors. These research issues will be elaborated upon in the following paragraphs.

Control group. Paul (1967) states that a control group is needed to demonstrate that observed changes that follow treatment intervention are not due to extra-experimental life experiences. Kazdin (1973b) reports that control groups are crucial when one attempts to determine whether relatively permanent effects of exposure to treatment conditions are obtained, or when one attempts to gauge the magnitude of these changes, as a result of a particular treatment. In a review of 51 studies using group designs in behaviour research with children, McDonough & McNamara (1972) report that 71% of the studies used a control group.

There are three methods of choosing a control group in psychol-

ogical research. First, one may choose a group that is composed of subjects that are matched to the experimental group on all important variables. Second, one may attempt to equate the groups by stratifying the group along major categories or characteristics. Third, a randomization procedure could be used to select participants in each experimental condition. Often, subjects in applied settings cannot be matched or even randomly assigned to various treatment procedures, but if possible, control groups should be used to validate experimental findings.

Systematic variation of treatment. One of the more popular experimental designs used in behaviour therapy research is referred to as the ABAB design. Other names for the design include reversal technique (Baer et al., 1968), intra-subject replication design (Sidman, 1960), equivalent time samples (Campbell & Stanley, 1966), and systematic variation of treatment (Pawlicki, 1970). The design employs alternate presentations of the baseline and experimental conditions within a subject or group of subjects. In behavioural terms it can simply be defined as a reversal of reinforcement contingencies.

Problems arise with this criterion when either the effects of the treatment are irreversible or when the effects of treatment are such that a return to baseline would be harmful to the subjects involved in the programme. Gelfand and Hartmann (1968) report that there are four acceptable, alternative treatment manipulations that may obviate the need for systematic variation of the treatment. Of interest to the present research is the alternative to use a yoked control group which would be treated identically to the treatment group, with the exception

that the actual treatment would not be administered.

Baseline data. Baseline data can be defined as data collected for a specified period of time before treatment is implemented. The need for baseline data appears to be clearly understood by experimenters in behaviour therapy research. MacDonough and McNamara (1973) report that approximately 85% of all group designs had fulfilled this criterion. To date observations have been typically restricted to the single target behaviour of initial focus. It has been argued however, that several potential advantages can be realized if several non-target behaviours are also observed and recorded (Kazdin, 1973b; Kazdin & Kopel, 1975). For example, one would be able to determine response generalization. Few studies have attempted to record multiple baseline behaviours but this procedure should certainly be considered in future research.

Unbiased observers. This criterion is defined as the use of two or more sources of data whose observations are correlated to ensure reliable estimates of behaviour change. This criterion is certainly reasonable within the confines of a controlled laboratory setting. Difficulties in the area of parent training groups are certainly evident in attempting to fulfill this criterion. Treatment and behaviour change for the most part, take place away from controlled laboratory settings--typically in the home. In addition the manpower required to observe home changes is often unavailable for a variety of reasons. However, a number of studies have attempted to fulfill this requirement (Eyberg & Johnson, 1974; Karoly & Rosenthal, 1977; Patterson,

Cobb, & Ray, 1973; Rinn et al., 1975). Unfortunately, there has been growing concern that observer effects may have a distorting effect upon the data accumulated during home observations.

A number of investigations have experimentally demonstrated that the behaviour of family members is not significantly affected by the presence of an outside observer (Bales, 1950; Barker & Wright, 1955; Johnson & Bolstad, 1973; Martin et al., 1971). Alternately, a number of studies have demonstrated that the reactive effects of an observer's presence in the home are quite pronounced, disturbing normal family interactions (Ferber, Keeley, & Shemberg, 1974; Harris, 1969; Zegiob & Forehand, 1978). Research findings are also controversial in regard to the question of whether parent recordings of their family members are significantly different from similar recordings by professional observers (Johnson & Lobitz, 1974; Karoly & Rosenthal, 1977; Peine, 1971; Rinn et al., 1975; Walter & Gilmore, 1973). To date the entire question has been inadequately researched. Specific conclusions about the reactive effects of observer presence in recording home behaviour, or differences in recording behaviour between the parents and professional observers, is premature.

An alternative to using professional home observers has been to employ multiple assessment measures to evaluate treatment effects (Eyberg & Johnson, 1974; Johnson, 1970; Kovitz, 1976; Patterson & Reid, 1973; Saddler et al., 1976). It is hypothesized that multiple outcome criteria will adequately demonstrate treatment effects. Typically the outcome criteria have included measures of the target behav-

iour recorded either by the parent or an observer and a variety of assessment devices to measure the parent's perceptual and attitudinal changes toward their child. This latter type of assessment device is somewhat new to behaviour therapists who have typically stressed that the target of treatment must be specific and observable classes of behaviour, rather than changes in the personality of the client. However, a wide assortment of tests have been used to assess parental attitudinal and perceptual change. Unfortunately few tests have been devised to assess patient characteristics for success in behaviour therapy (Kanfer, 1972). Those that have been designed, demonstrate very little standardization data or poor reliability. It would appear therefore that if we are to use multiple outcome measures we must experience a period of trial and error experiments with established tests and attempt to supply standardization information and reliability data for tests constructed to measure behavioural change.

Follow-up data. Follow-up is considered to be any re-evaluation of the problem behaviour after a reasonable lapse of time following the last treatment session. This criterion is important if we are to distinguish between what Kazdin and Bootzin (1972) refer to as prosthetic environments (changes only during treatment), and therapeutic environments (changes maintained beyond treatment conditions). Keeley et al., (1976), defining long term follow-up as six months post-treatment, report data on 146 studies that had investigated behaviour therapy. No short term treatment failures were reported. However, only eight of the studies reported hard core data on follow-up. Nearer to

home in the area of using parents as change agents for their children, only seven of forty five studies reported long term (6 months) effects following treatment (Johnson & Katz, 1973).

Keeley et al., (1976) report that only 11.6% of the studies reviewed demonstrate long term follow-up procedures and of these only about half showed any signs of continued successes from treatment. Certainly more attention will have to be paid to this issue in future research.

Group versus individual treatment. Studies describing the training of parents have repeatedly demonstrated the feasibility of this mode of treatment. Success has been achieved seeing parents individually (Berkowitz & Graziano, 1972; O'Dell, 1974), and in groups (Patterson & Reid, 1973; Tams & Eyberg, 1976). Three studies to date have attempted to assess aspects of parent training in relation to the effectiveness of group versus individual treatment. Peine (1971) observed that there were no differences in treatment success for group and individual participants after training. Cost efficiency was not assessed in this study. Mira (1970), on the other hand, reported that group training was not as effective as individual training if looked at in terms of professional time expended and successful outcome. In a more recent study that appeared to be somewhat more methodologically sound than the previous studies (Kovitz, 1976), it was found that there were no significant differences on outcome measures between group and individual treatment. In terms of professional time expended, Kovitz (1976) concluded that the contact time per family was greater for group

treatment (23 hours to 11 hours), but the individual treatment was more expensive to conduct. It would appear that the consideration of group or individual treatment should be determined by the therapist's and client's needs and available resources. However, additional research is necessary to allow more conclusive decisions to be made in this regard.

Instructional techniques. It appears that most parent training programmes have used some form of didactic instruction. In addition, written presentation of information (Becker, 1971; Patterson, 1971; Holland, 1975; Patterson & Gullion, 1968), modelling (Doleys, Doster, & Cartelli, 1976; Johnson, 1970; Patterson & Brodsky, 1966), and role playing (Johnson & Brown, 1969; Patterson, Cobb, & Ray, 1973), have occasionally supplemented didactic instruction. Effectiveness of one technique or a combination of techniques has not been clearly demonstrated. Few studies have been conducted to investigate this question. Nay (1975) demonstrated that modelling coupled with role playing was most effective in ensuring a generalization of behaviour change. Doleys et al., (1976) found that immediate feedback and self recording were most effective in ensuring the acquisition of responses. Far too few studies have been conducted to reach any type of reliable conclusion regarding the most appropriate instructional technique to be used in conveying behaviour change techniques to parents. Further research is indicated.

One further note can be made in regard to instructional techniques. Criticisms have been occasionally levelled at behaviour therapy for in-

adequately describing training operations (Johnson & Katz, 1973). Programmed texts have often been used (Becker, 1971; Lindsley, 1973; Patterson, 1971; Patterson & Gullion, 1968), but ancillary treatment has often been vague. It is vital that all parent training programmes specify their exact treatment so that accurate replications may be attempted.

Cost efficiency. Recent emphasis has been placed upon the cost of implementing parent training programmes in terms of professional time expenditure. Patterson and his associates report professional time expenditures that range from two to 47 hours. Typically however, these programmes appear to require approximately 25-30 hours per patient (Patterson & Reid, 1973). Eyberg and Johnson (1974) report spending approximately 11 hours with each family. Other sources report much lower time investments but often their treatment is specific to one behaviour (Herbert & Baer, 1972; Mira, 1970). It is evident that one of the crucial determinants in choosing an appropriate treatment for a parent has to be the cost to both parent and therapist, in terms of money, time, and effectiveness. Future research should pay strict attention to recording the cost-efficiency of their treatment programme.

Generalization effects of treatment. Effective parent training requires three steps (O'Dell, 1974, p. 430). First, the parent must be taught behaviour modification skills that will allow him or her to react to their children in an appropriate manner. Secondly, the parent must use these newly learned behaviours in a systematic manner with

their children. Third, both the newly learned behaviours and changes that result from them must generalize and persist. It is to this last step that the following paragraphs are devoted.

Generalization can be operationally defined as follows (Stokes & Baer, 1977): "The occurrence of relevant behaviour under different non-training conditions (i.e., across subjects, settings, people, and/or time) without the scheduling of the same events in those conditions as has been scheduled in the training conditions." Two types of generalization are of interest to this research (Kazdin & Bootzin, 1972; Keeley et al., 1975; Lovaas et al., 1973). Stimulus generalization can be described as the extent to which behaviour changes that occurred in the treatment environment have transferred to situations outside of that environment. To assess stimulus generalization, one must relate pre-post changes of behaviour in the reinforcement setting to pre-post changes in non-reinforced settings. Response generalization can be described as the extent to which changes in a limited set of behaviours effect changes in a larger range of behaviours. To assess response generalization one must record pre-post changes on non-targeted problem behaviours.

Few studies on parent training programmes have actually discriminated between the types of generalization. Kazdin & Bootzin (1972) report a large number of studies in behaviour therapy research that have failed to demonstrate what was later defined as stimulus generalization (Becker et al., 1967; Broden et al., 1970; O'Leary et al., 1969; Walker & Buckley, 1968). Only three studies on parent-training have been

found that have investigated (unsuccessfully) stimulus generalization (Forehand et al., in press; Miller & Sloan, 1976; Wahler, 1969).

Kazdin (1973a) reports a number of studies that report successful response generalization in the school setting (Becker et al., 1971; Buckley & Walker, 1970; Meachem & Wiesen, 1969). In the area of parent training a number of studies have been successful in demonstrating response generalization in regard to sibling change (Arnold et al., 1975; Lavigueur, 1973; Patterson et al., 1973), and family system change (Karoly et al., 1977; Patterson & Cobb, 1973; Patterson & Reid, 1973).

A number of researchers have suggested that generalization should be actively sought and planned rather than awaiting it as an inadvertent consequence of some specific treatment programme (Baer et al., 1968; Kazdin & Bootzin, 1972; Miller & Sloane, 1976; Stokes & Baer, 1977; Wahler, 1969). Allyon & Azrin (1965, p. 48) have outlined the following points to consider in order to facilitate generalization: "a) teach those behaviours that will continue to be reinforced after training; b) train relatives; c) use self reinforcement techniques; d) vary the schedule of reinforcement; e) delay reinforcement; and, f) use back-up reinforcers." Gruber (1971) speaks of conditioning subjects at an unaware level of consciousness, to minimize generalization decrements. Stokes and Baer (1977) outline still more ideas concerning ways to enhance generalization effects in an active manner.

One point that might be considered in regard to generalization is the size and make-up of the treatment population. Programmes have been

devised for parents with children who display specific behaviour problems (Arnold et al., 1975; Hobbs et al., in press; Patterson et al., 1975). Programmes have also been developed to train parents whose children display a wide range of problems (Holland, 1976; Saddler et al., 1976). The number of parents used to demonstrate treatment generalization has ranged from one individual (Walker, 1959) to 90 individuals (Rinn et al., 1975). Typically however, groups have consisted of from five to 15 parents (Kovitz, 1976, 14E-6C; Karoly & Rosenthal, 1977, 10E-9C; Patterson et al., 1973, 13E; Salzinger, 1970, 7E; Wiltz, 1974, 6E-6C). If one was interested in generalization effects it might be appropriate to consider using larger and more diverse samples.

There can be little disagreement that to be classed as therapeutic, change should generally occur over persons, time, and setting. In addition, change should sometimes generalize to other related behaviours. Increased research is required on this most important issue.

Types of parent counsellors. The present and projected shortage of professional manpower in the core mental health professions is well known and amply demonstrated (Arnhoff et al., 1968). This shortage is certainly one of the reasons that parents have been taught to be behaviour therapists for their children by mental health professionals. In addition, several trends in the mental health field point to the use of paraprofessionals as counsellors for parents. These paraprofessionals have included student volunteers (Reinberg, 1964), housewives, (Rioch, 1966), teenage peers (Perlmutter & Durham, 1965), and teachers (O'Neil,

1972). The effectiveness with which the various groups of paraprofessionals can implement a training programme for parents would certainly reflect upon the utility and effectiveness of any parent training programme.

Summary. In the preceeding paragraphs a review has been given of pertinent research and treatment issues that have major significance in behaviour therapy, and in particular to parent training programmes using behaviour modification techniques. In the following paragraphs one particular training programme that is the focus of the present research will be reviewed. This programme is the Directive Parental Counseling Programme.

Directive Parental Counseling Programme (DPC)

The Directive Parental Counseling Programme (DPC) is a parent training programme which focusses upon teaching parents fundamental operant principles. It consists of 30 clearly presented steps which describe these principles in simple, practical terms and offers many examples to illustrate each step. The programme can be used with individual parents or with groups of parents and is typically presented in a didactic manner, with group discussion and participation encouraged. To assist the parents' understanding of the learning principles and their practical application, parents select and observe specific target problem behaviours that their child is actively displaying, and actually develop in a step-wise fashion, a formal programme to eliminate this self-selected undesirable behaviour. Following the teaching of the 30

steps the parents are supervised to actually implement the programme to change the target behaviour that has been used as a model throughout the programme.

A counselor's manual is now available which elaborates upon each step and offers considerable ancillary information to ensure that the programme is presented in an effective manner. Although the programme is typically taught in a didactic presentation, counselors still retain the flexibility to modify their delivery using group discussion, modelling, or role playing techniques.

The didactic portion of the programme can be taught to parents in approximately six to eight sessions, with each session lasting between one and one-half to two hours. An additional two to three weeks follows during which the parents are actually supervised as they implement the programme with their own children.

Review of DPC research literature. To date, four studies have been conducted to assess various aspects of the DPC programme (Brown, 1975; Hyde, 1975; Capanzano, 1976; Fulgenzi, 1978). The programme has been used with parents of children who display a diverse range of problem behaviours. It has been conducted with parents of extremely contrasting socio-economic and educational backgrounds. In the following paragraphs a review of the findings for the four above-mentioned studies will be given, following which comments will be made on how these studies have handled the research issues previously discussed.

Brown (1975) investigated the extra-conditioning variables that reflect change as a direct result of the DPC programme implementation.

An extra-conditioning variable was described as any event or process related to treatment which was not a specific target behaviour (p. 27). Results indicated that DPC, when delivered by "experienced therapists", is effective in enhancing parental attitudes towards themselves and towards their children. Generalization-of-effects from training to the respective problem child were amply demonstrated. Role perceptions that the participating parents held toward their spouse, and attitudes concerning the total family unit, did not change in a significant manner. In general, the therapeutic effects were shown to be confined to specific child-parent interactive units and to the benefit of the problem child who was the focus of treatment. However, no information was collected on possible generalization-of-effects to siblings of the problem child. Long term treatment effects (1 year) were noted on a number of assessment variables.

Hyde (1975) focussed upon the areas of target behaviour data, parent perceptions and attitude change, and paraprofessional training. Psychology graduate students with limited clinical skills and experience were taught to administer the programme to a group of families. Analysis of results indicated that a number of changes were effected following presentation and application of the DPC programme. There were significant decreases in targeted behaviour problems in six of ten treatment families and these changes were shown to be maintained over a three month follow-up period. Parent's perceptions of the child's problem behaviours were changed in a number of areas, particularly as related to the areas of acting-out and distractability. Significant change was not found in

parent-child relationship attitudes, parent perception of personality change, and meanings attached to concepts related to parent-child disturbance. An exploratory analysis to determine accurate predictors of success in the DPC programme was attempted with some indication of success. Finally, it was amply demonstrated that paraprofessionals could be effectively used to train parents to successfully use this programme to modify their child's behaviour problems. However, since Brown (1975) found a greater diversity of treatment effects, it was hypothesized that level of counselors experience might be a significant factor in effecting therapeutic change.

Capanzano (1976) conducted a comprehensive study to investigate the relationship between counselors variables and successful outcome of the DPC programme. He also assessed the feasibility of training paraprofessionals (student nurses) to conduct the programme with parents. In addition, he investigated a large assortment of variables that might be used as predictors of parental success in implementing the programme.

Following a period in which the student nurses were taught the programme, each nurse met with one family to teach them the programme. Using child problem behaviour reduction as a criterion, 13 of 22 families were judged to be treatment successes (60% decrement of target problem behaviours). Parental attitudes toward their child did not evidence significant change but of the 16 measures, 15 changed in the expected direction. Of the 25 potential predictor variables only two were significantly correlated with behaviour percentage decrement. The major finding was that a large number of counselors variables were

found that were highly correlated with behaviour percentage decrement.

Fulgenzi (1978) focussed upon three areas of interest: target behaviour reduction, paraprofessional training, and generalization effects: In this study social workers were taught to administer the programme to parents. Significant target behaviour reductions were noted between pre- and post-assessment periods, for the treatment group but not for the control group. Parent perceptions toward the behaviour of their child in both the home and school setting changed significantly. Stimulus generalization effects were noted in that teacher's perception toward the problem child were also modified. A three month follow-up revealed that the changes were lasting over time.

Summary of research issues as related to DPC research. To date the DPC programme has been typically delivered to parents on an individual basis or in groups of two or three. Larger groups have been occasionally used but to date research has not been systematically conducted in these settings. Typically, the programme has usually employed didactic instruction to present the programme to parents, but modelling, group discussion and role playing have also been employed to elablorate certain key issues. No systematic analysis has been attempted to assess the effects of these ancillary treatment aids, or the size of the group.

Sample size has ranged from seven subjects (Brown, 1975), to 23 subjects (Capanzano, 1976) in studies which did not employ a control group. With a control group, sample size has ranged from 10E and 9C (Hyde, 1975) to 15E and 15C (Fulgenzi, 1978). Cost efficiency in terms of time expended has only been assessed by Hyde (1975) showing that

total time output per family equalled approximately 23 hours.

All studies have revealed some evidence of generalization effects. These effects include generalization of parent training techniques from the laboratory to the home; generalization from specific target behaviour change to perceptual and attitudinal change; and, generalization effects from the home setting to the school setting.

To date, no study using the programme has employed reversal techniques and it is quite likely that this technique would be both inappropriate and possibly unethical in this treatment setting. However, all studies have employed multiple outcome criteria to determine the effects of this form of treatment. Three of the studies have had the mother observe and record target behaviours in a systematic fashion, during the entire duration of the treatment period (Capanzano, 1976; Fulgenzi, 1978; Hyde, 1975). A large variety of additional assessment instruments have been used to assess change resulting from the programme. Some consistent change has been noted across the studies on various assessment instruments (Walker Problem Behaviour Identification Checklist and frequency counts). Follow-up data has been collected on three of the four studies, and this assessment reveals consistent long term effects.

The results of past DPC research and the attention given to methodological issues is quite impressive when compared to much of the research that is published in the various clinical journals. However, continued research maintaining stringent methodological controls is vital to consolidate previous findings and to explore other treatment issues that

one might expect would influence the efficient and effective delivery of the DPC programme. In addition, continued research is required to further investigate the limitations of this programme and to define the types of change that can be expected from its implementation.

Statement of the Problem

Patterson (1974a) emphasizes the need for more definitive studies in the area of training parents to act as behaviour therapists for their own children. He suggests that these studies should employ a large number of subjects with provisions made for random assignment to treatment and extended waiting list control groups, and that they be conducted by trained therapists who apply standardized treatment packages. A number of standardized parent training programmes have been previously mentioned. One that has demonstrated much promise is the Directive Parental Counseling programme (Holland, 1976).

During the past decade the DPC programme has repeatedly demonstrated its effectiveness in reducing the occurrence of problem behaviours in very diverse settings. These behavioural changes have been shown to be maintained in follow-up studies over an extended period of time. A number of investigators (Eyberg & Johnson, 1974; Patterson et al., 1973; Ross, 1964) have hypothesized that many of the difficulties between parent and child may be the result of parental attitudes and perceptions, in addition to the intensity of the child's inappropriate behaviour. Indeed, Lobitz & Johnson (1973) reported that parental attitudes were better predictors of psychological referrals than were the child's

maladaptive behaviours. It would appear, therefore that modification of the parent's attitudes and perceptions concerning their child may also have to be a goal of any treatment programme. Past research with the DPC programme has consistently demonstrated changes in this area. Finally, this programme has repeatedly demonstrated it's versatility by being successfully administered, by an assortment of professional and paraprofessional counselors, to a diverse parent population whose children have evidenced a wide range of maladaptive behaviour.

Upon reviewing the published literature, one becomes aware of the fact that there are few standardized, structured programmes that demonstrate the potential that is evident with the DPC programme. Continued research is needed however, to explore the over-all effectiveness and limitations of this programme.

One specific area that has not been adequately researched, in either the broad field of parent training or with the DPC programme, is the area involving generalization effects outside of a specific maladaptive behaviour of the target problem child. On an intuitive level one would expect that training parents in general behavioural management skills should enhance their ability to use these skills to change non-targeted, maladaptive behaviours. In the general area of parent training research there has been only minimal support for this type of response generalization (Zeilberger et al., 1968). Alternately many studies have failed to demonstrate response generalization (Patterson et al., 1973; Patterson & Reid, 1973; Wiltz & Patterson, 1974). This question has not been responded to in any systematic manner in past

DPC research.

The question of whether parent training skills generalize to weaken disturbing behaviours of other family members is also an important issue. Forehand and Atkeson (in press) suggest three reasons for sibling generality: a) generalization of the parents' use of behavioural techniques to the untreated sibling; b) observational learning by the untreated sibling; and c) reduced sibling reinforcement for deviant behaviour. Five studies have been conducted to assess this type of generalization (Arnold et al., 1975; Humphrey et al., 1977; Laviqueur et al., 1973; Patterson et al., 1973; Resick et al., 1976). All five reported a decrease in sibling problem behaviours. However, methodological weaknesses such as extremely small sample numbers and confounding treatment between target children and their siblings weaken the findings of four of these studies. Only one study (Humphreys et al., 1977) which focussed upon non-compliance behaviours, clearly supports sibling generalization. In still another direction, one study (Karoly & Rosenthal, 1977) reported that a generalized improvement in family system functioning resulted from a parentally managed programme of behaviour modification with a problem child. Neither of these two areas have been extensively researched in past DPC investigations. However, Brown (1975) using a semantic differential rating scale did observe that participating parents viewed themselves as more effective and potent as a parent.

This present investigation has attempted to respond to a number of these treatment issues. In addition to investigating target child

behaviour reductions, the areas of parent perceptual and attitudinal change toward the target child, a sibling and themselves will be assessed using multiple evaluation criteria.

Experimental design. Thirty-six treatment families and twenty-seven control families having a child with an active behaviour problem comprised the final sample. These families were referred for DPC by a number of local social service and mental health agencies. In addition a number of families referred themselves to the programme through nursery schools and a local university. Behavioural and attitudinal measures were collected pre- and post-experimentally from both the treatment and control group of families. Measures were employed to assess change in the problem child, one sibling who was closest in age to the problem child, and the reinforcing agent. In addition, the problem child's teacher was asked to complete questionnaires to determine whether changes had occurred in the school setting. Following completion of the initial programme, the control group was offered the opportunity to participate in a DPC programme. The data collected was analyzed using 2 x 2 multivariate analysis of variance (MANOVA), (treatment and control, pre and post measures) with repeated measures on one factor. In addition a 2 x 2 analysis of variance (ANOVA) was computed to determine main and interaction effects for dependent measures.

The following changes in parent and child behaviours from pre-treatment measurements to post-treatment measurements were hypothesized for the treatment group but not for the control group:

1) Training in the Directive Parental Counseling programme would

enable parents to reduce problem behaviours in the desired direction for both the target child and one sibling.

2) The participating parents' perceptions and attitudes toward the problem child, a sibling and themselves would change in the desired direction as measured by various paper and pencil measures.

3) The target child's behaviour in the school setting would change in the desired direction as measured by paper and pencil measures.

CHAPTER II

METHOD

Approximately eighty families were initially referred to the Directive Parental Counseling programme. These referrals originated from mental health and social services agencies, nursery schools and university sources. Specifically, referrals were received from the Regional Children's Centre, Children's Aid Society, ABC Nursery and the University of Windsor. Referred families were not pre-selected with the exception that the problem child in the family be within the two to thirteen age group. Additional pre-selection criteria were avoided to more closely approximate consecutive clinic referrals that one might expect in a community mental health agency.

Subjects

Sixty-three families ultimately participated in the study and completed outcome evaluation measures. In each family, at least one child exhibited active problem behaviours within the home. Problem behaviours included: non-compliance, aggressiveness, temper tantrums, whining, talking back, lying behaviours and others as outlined in Table 1. Families were assigned to a treatment or control group on a random basis. Thirty-six families actually completed the DPC programme and formed the treatment group. Twenty-seven families comprised the control group.

At the time of initial contact with the families the mean age of the treatment group target children was 6 years - 11 months. The ages

Table 1a

Demographic Data for the Treatment Group

ID	Target Child Age (YR)	Sex	Grade	Sibling Age	Sex	Parent Married or Single	Income	Education Father	Mother	Children in Home	# of Rooms	# of People
1	11	M	6	8	M	M	15,000	8	11	4	8	6
2	4	F	N*	-	-	M	15,000	12	12	2	7	4
3	4	M	N	4	-	M	20,000	9	15	4	5	6
4	7	F	1	5	-	M	25,000	12	12	2	9	4
5	7	M	1	-	-	S	5,000	-	9	1	6	2
6	5	M	KG*	-	-	M	12,000	16	14	1	6	3
7	3	M	-	12	M	M	20,000	18	14	4	6	6
8	7	M	2	5	M	M	20,000	12	12	2	6	4
9	7	M	SE*	-	-	M	20,000	8	9	1	10	4
10	10	M	4	7	M	S	8,000	-	12	5	7	6
11	10	M	SE*	9	M	S	6,000	-	12	3	7	4
12	8	M	3	5	F	S	4,000	-	12	2	5	3
13	13	M	7	14	F	S	6,000	-	12	3	5	4
14	13	M	8	-	-	S	14,000	-	10	1	5	2
16	8	M	3	6	M	S	8,000	-	12	3	7	4
17	8	M	3	13	M	M	14,000	10	8	3	6	5

*N - Nursery, KG - Kindergarten, SE - Special Education.

	Target Child			Sibling		Parent		Education				
ID	Age (YR)	Sex	Grade	Age	Sex	Married or Single	Income	Father	Mother	Children in Home	# of Rooms.	# of People
18	8	F	3	-	-	S	5,000	-	10	1	4	3
19	6	F	1	2	M	M	20,000	10	11	2	7	4
20	7	F	2	12	M	M	24,000	14	12	3	8	5
21	9	F	4	-	-	M	10,000	10	9	4	6	6
22	12	F	6	8	F	S	5,000	-	8	3	5	4
24	4	F	-	2	M	S	6,00	-	10	2	5	4
26	6	M	1	3	M	M	35,000	16	15	2	5	4
28	7	M	2	9	M	M	22,000	15	12	4	9	6
29	2	M	-	-	-	M	24,000	12	12	1	7	3
30	3	M	-	-	-	S	16,000	-	14	1	8	3
31	5	F	KG*	-	-	M	19,000	11	12	1	6	3
32	4	F	N*	5	F	M	10,000	10	11	2	5	4
33	6	F	1	3	F	M	12,000	10	11	2	8	4
34	2	M	-	-	-	M	40,000	12	14	1	12	3
35	13	M	7	7	F	M	28,000	18	13	3	12	5
36	12	F	7	10	M	S	16,000	-	13	2	5	3
37	7	F	1	-	-	M	38,000	16	14	1	12	3
38	2	F	-	-	-	S	10,500	-	14	1	5	2
39	6	M	KG*	2	F	M	21,000	11	12	2	10	4
40	4	F	-	6	M	S	12,000	12	-	2	11	8

Table 1b

Demographic Data for the Control Group

	Target Child			Sibling		Parent		Education				
ID	Age (YR)	Sex	Grade	Age	Sex	Married or Single	Income	Father	Mother	Children in Home	# of Rooms	# of People
100	7	M	SE*	-	-	M	25,000	16	12	1	11	3
101	9	M	3	13	F	M	30,000	8	12	2	8	3
102	8	M	3	5	F	M	20,000	13	9	2	5	4
103	12	M	6	9	F	M	14,000	10	10	3	6	5
104	6	M	1	8	F	S	11,000	-	12	2	7	3
105	8	M	2	10	M	M	25,000	10	11	3	6	5
106	11	F	6	10	M	M	15,000	12	12	2	5	4
107	7	F	2	9	F	M	20,000	17	17	4	8	6
108	8	M	2	12	F	M	18,000	8	12	3	8	5
109	12	M	5	13	M	S	7,000	8	12	3	7	4
110	8	M	3	10	M	M	20,000	12	12	3	6	5
111	7	M	1	4	M	M	10,000	12	12	3	6	5
112	5	M	KG*	-	-	M	22,000	14	12	1	6	3
113	9	M	3	11	F	M	14,000	10	8	3	5	5
114	5	F	KG*	4	M	S	9,000	12	-	2	6	5

*SE - Special Education, KG - Kindergarten.

ID	Target Child Age (YR)	Sex	Grade	Sibling Age	Sex	Parent Married or Single	Income	Education Father	Mother	Children in Home	# of Rooms	# of People
115	3	F	-	-	-	S	4,500	-	9	2	4	3
117	9	F	4	-	-	S	12,000	-	12	2	6	3
119	9	M	4	10	F	S	7,000	-	9	4	6	5
120	7	M	2	10	M	M	9,000	13	9	5	7	7
121	9	M	4	5	F	M	24,000	11	9	3	5	5
122	12	M	7	10	F	M	12,000	10	10	5	6	7
123	6	M	1	11	F	M	20,000	14	15	3	10	5
124	12	M	7	-	-	S	14,000	-	15	3	10	4
125	6	M	KG	3	F	M	32,000	16	15	2	10	4
126	11	M	5	-	-	M	23,000	18	16	1	6	3
127	7	M	2	2	M	M	28,000	12	15	2	9	4
128	11	M	6	-	-	M	34,000	16	16	1	12	3

within this group ranged from 2 years to 13 years. In the control group the mean age of the target children was 8 years - 5 months. The age range was again 2 years to 13 years. A male-female ratio of 21:15 in favour of males existed in the treatment group. This same ratio was 21:5 in favour of males in the control group. The educational level of treatment group target children ranged from preschool to grade 8 in the treatment group and from preschool to grade seven in the control group.

The mean age of the untreated sibling in the treatment group was 7 years - 8 months, while in the control group the mean age was 8 years - 0 months. The sex ratio was 14:8 in favour of males in the treatment group and 12:9 in favour of females in the non-treatment group.

Twenty-three of the thirty-six treatment families were two-parent families. In the remaining single parent families, the father was the absent figure in all but one family. Twenty of the twenty-seven control families were two-parent families. All single parent families within this group were headed by the mother.

The educational level of treatment family parents ranged from eight to eighteen years of schooling. The mean educational level for this group was 11.64 years. In the control group there was an identical range of years of education compared to the treatment group. The mean number of years spent in education for this latter group was 12.18 years. Annual salary in the treatment group averaged $16,000. Salary in this group ranged from $5,000. to $40,000. per year. In the control group, the mean annual salary was $18,500. with a range

extending from $5,000. to $32,000. per year.

Therapist

One clinical psychology graduate student experienced in teaching the Directive Parental Counseling programme served as primary therapist for all treatment families. This therapist had previously conducted the DPC programme on a number of occasions and had acted as consultant-trainer in other DPC research-training programmes.

Procedure

Assignment of each family to either the control group or the treatment group was carried out using a randomization procedure before contact was made with the parent(s). An interview was then conducted with all parents to determine the type and nature of their child's problems. In addition, they were given a brief description of the DPC programme and were adivsed of the information (behaviour recording and questionnaire) that they would be required to collect during the course of the programme. Control group families were told that they could not be seen immediately but would be seen in approximately ten weeks time. They were asked, however, to collect the same data as the treatment group. No formal treatment contact was made with the control group during the ensuing ten weeks.

Paper and pencil tests were completed during the first two weeks of the programme. In addition, all parents recorded the occurrence of three problem behaviours for both the target child and the sibling closest in age (where possible) to the target child for a two week,

baseline period.

Treatment group families were placed into groups determined by place of referral. All families were seen within the premises of the agency that had referred them to this programme. The size of the groups ranged from five to eight families. Most families were represented by mothers alone but a few families were represented by both parents. To maintain some degree of consistency across families, mothers were asked to complete all questionnaires.

The treatment programme consisted of ten 1 1/2 to 2 hour sessions with each group meeting on a weekly basis. During these sessions parents were taught the concepts, language, observation and data collection skills that were needed to carry out the steps of this behaviour change programme. The procedure followed in this study has been described in detail in a counselor's manual written by the author of the DPC programme (Holland, 1977). Each parent was given a copy of the parent's manual (Holland, 1975) during the first session.

During the first eight sessions the 30 steps of the programme were taught to the parents. Discussion, role playing, and modelling techniques were occasionally used to ensure that parents understood the principles of the programme, and were able to efficiently implement the behaviour modification techniques in the home setting. During the final two weeks parents implemented the formal programme to modify a specific problem behaviour that they had chosen during the first session.

Group sessions continued during this final two week period to ensure that the parents were implementing the programme in an effective

and efficient manner. During this latter period parents were encouraged to give advice and assistance concerning the programme to each other, rather than to solely rely upon the therapist.

At the end of the ten week period, parents in both the control group and the treatment group were asked to again record frequency counts of all three pre-selected behaviours that had been previously recorded during the baseline period. Paper and pencil tests were also completed by all parents at this time. All treatment families were contacted by phone at least once per month following the treatment programme. Additional assistance was given on the phone to some parents who were still having difficulties.

Approximately three months following the termination of the formal programme, treatment group parents were again asked to record the occurrence of the previously recorded problem behaviours. In addition, they completed both behaviour rating scales on the target child and sibling.

Outcome Measures

There were three primary dependent measures used to assess change for both the target child and a sibling. These measures were the home observation data of three problem behaviours as recorded by the parents and two behaviour rating scales. There was one scale used to assess parental attitudes toward child rearing and parenting. Finally, there was one scale used to assess the wife's attitudes towards her husband. Outside of the family, the target child's behaviour was assessed both pre- and post-treatment by the child's teacher using the same behaviour

rating scales that had been completed by the parents.

Behaviour recording. Parents selected three maladaptive problem behaviours that their problem child was actively displaying. Problem behaviours were also selected for one sibling. The parents were given specific instructions on how to observe and record these behaviours in the home setting. Frequency recording forms were handed out to facilitate data collection. Baseline data was collected on a daily basis for the initial two weeks of the programme. Post treatment behaviour data were also collected immediately following the treatment programme and again, three months after the treatment programme.

Walker Problem Behaviour Identification Checklist. This is a fifty item checklist constructed by H. M. Walker (1970). Items are observable, operational statements which describe various behaviour problems that a child might typically display. Five clinical scales are devised to identify problem areas:

1. Acting Out: This scale measures behaviours which point to the child being generally disobedient, moody, argumentive and aggressive. Other characteristics include low level of tolerance, deceptiveness and a suspiciousness of the motives of others.
2. Withdrawal: This scale measures behaviours which describe the child as shy, friendless and withdrawn.
3. Distractability: This scale measures behaviours which describe the child as overactive, restless, unable to concentrate and attention seeking. This child is typically unable to set limits

internally and is very unsure of his talents and capabilities.

4. Disturbed Peer Relations: This scale measures behaviours which describe the child as lonely, unhappy and critical of himself. This child has few friends and often engages in autistic-like behaviours.

5. Immaturity: This scale measures behaviours which describe the child as listless, apologetic and fearful. Anxieties are manifested in this child through psychosomatic disorders and nervous behaviours.

A total score is also obtainable by adding the five subscale scores. Cut off points are supplied to discriminate disturbed from non-disturbed children. The WPBIC has been standardized on a grade four to six population and is designed for use with children in elementary grades. As there appear to be no standardized behaviour rating scales that cover the entire age range of subjects in this research, this test was used with all children in this research project. However, because of the limited standardization sample only raw scores were used to compare subject and group behaviours.

Reliability data and four kinds of validity are reported for this test. The Kuder-Richardson split-half reliability has been assessed as .83. The four types of validity assessed are contrasted groups, criterion, factorial and item validity. In contrasted groups validity, differences between the means of experimental and control groups were significant beyond the .001 level of confidence. A bi-serial correlation of .68 between checklist scores and three criteria was found in the cri-

terion validity assessment. Factor analysis revealed that the five factors on this test were relatively independent of each other with the exception of a .67 correlation between acting out and distractability. Item validity evaluation revealed that the range of item variances for this test is from .09 to .16.

Missouri Children's Behaviour Checklist. This is a seventy item checklist constructed by Sines, Pauker, Sines & Owen (1969). Checklist items were derived from several previous checklists and behavioural descriptions supplied by parents, teachers, institutional supervisors and clinicians. The seventy behaviour descriptive statements cover six dimensions of behaviour:

1. Aggression: This scale measures behaviours which would be described as mean, destructive, annoying and aggressive. The child scoring high on this scale would also be described as threatening, selfish and sullen. He would not accept responsibility for his actions and would put his needs above others in most situations.
2. Inhibition: This scale measures behaviours which would be described as fearful, shy and apathetic. This child would prefer to be by himself or playing with a younger child and would shun group activities.
3. Activity Level: This scale measures behaviours which could be described as over-active, overtalkative, easily distractable, jittery or clumsy. This child would have difficulty concentrating and would seldom complete tasks.

4. Sleep Disturbance: This scale would measure behaviours relating to sleep, such as how the child sleeps, whether he has nightmares or sleepwalks or how he falls to sleep.

5. Somatization: This scale would measure such behaviours as psychosomatic complaints, crying, whining and clinging to significant figures. The child would be described as very dependent and a chronic worrier.

6. Sociability: This scale measures how well the child responds to his environment. Does he mix with others and seek out others for enjoyment? Does he react positively to his surroundings? Of the six scales this is the only scale that is scored in a positive direction.

7. Total Score: The sum of the first five scales yields a total deviancy score with high scores indicating deviancy.

Data on the original checklist were collected from 404 boys and 250 girls from across Canada and the United States, ages five through sixteen years. Standardization data are only derived from the sample of boys.

Items were selected for the final checklist if the point-bi-serial correlation between the item and the total dimension score were at least .30 and if the square of the point-bi-serial correlation was at least twice as large as the square of the correlation between the item and the total score on any of the remaining five factors. The point-bi-serial correlation indicates that each of the checklist items relates relatively exclusively to only one of the six dimensions. Odd-even reliability of

scores on checklist dimensions range from .67 to .86, which is a reasonable level for a behaviour rating scale. Inter-judge reliability (between mothers and fathers) ranged from .53 to .94, which is a moderately high degree of agreement and is consistent with other behaviour checklists. High inter-scorer reliability is reported although specific analysis is not reported. Concurrent validity is reported to be adequate.

Hereford Parent Attitude Survey (HPAS). The HPAS is a 75 item test constructed by Hereford (1963). Each item consists of a statement for which the parent marks one of five choices ranging from strongly agree to strongly disagree. Five separate scales are derived:

1. Confidence in the parental role: This scale measures the extent to which the parent feels confident in carrying out parental responsibilities.
2. Causation of the child's behaviour: This scale measures whether the parent emphasizes natural or inherent causation of behaviour, or parental or environmental influence. In effect this measure assesses the degree to which the parent feels she can change the child's behaviour.
3. Acceptance of the child's behaviour: This scale measures the degree to which the parents accept the normal developmental changes in their child. In effect this measure assesses the extent to which the parent sees each child as an individual with their own individualized behaviours and growth patterns.
4. Understanding: This scale focusses upon the freedom of commun-

ication between parent and child and the degree of reciprocity in their relationship.

5. Trust: This scale determines the degree to which the parent feels the child has to be watched, directed and guided if he is to turn out OK. It focusses upon the degree to which the child can be trusted to do the right thing without excessive external guidance.

6. Total: The sum of the five scale score yields a total attitude score with a high score being most positive.

The split-half reliability co-efficients for each scale range from .68 to .84, well within the satisfactory range of reliability for measuring instruments of this type. Interscore correlations range from .33 to .62, high enough to indicate that all scales are measuring related parental attitudes but not so high as to suggest duplication.

Items that make up the test were either chosen from similar instruments or were written by one of the test authors. Starting with more than 200 items, the number was reduced by five judges working independently of each other. Items had to be selected by at least four of the five judges to be retained in the item pool. Further reduction of items was achieved by using a discrimination index consisting of the product-moment correlation between each item and its total score. Fifteen items with the highest correlation coefficients in each of the five areas were used in the final version of the test.

Marital Attitudes Evaluation Scale (MATE). The MATE is a 90 item test which measures the degree of satisfaction between a husband and a

wife in the areas of inclusion, control and affection at the levels of behaviour and affection (Shutz, 1967). Inclusion refers to feelings or behaviour which imply being important or significant or having some worth to their spouse. Control refers to feelings of competence in the areas of intelligence, appearance, practicality and general ability to cope with the world. Affection revolves around feelings of being lovable and attractive. These scales in addition to being expressed in terms of behaviour and affection are also broken down in terms of whether one spouse wants more of the characteristic from her spouse or wishes to be more expressive along the same dimension towards her spouse. Defining items for the MATE are as follows:

1. Inclusive Behaviour: I want my spouse to spend more time with me and to give me more attention.
2. Control Behaviour: I want my spouse to allow me more freedom and to allow me to think more for myself.
3. Inclusive Feelings: I want my spouse to be more interested in me and to feel more strongly that I am a significant person.
4. Control Feelings: I want my spouse to have more respect for my ability to think and do things well.
5. Affection Behaviour and Feelings: I want my spouse to show and feel more love and affection for me.

Reliability and validity data are not available for this test. However, the test was constructed using similar procedures to the FIRO tests which do display adequate reliability co-efficients. In addition,

Schutz (1967) suggests that if the theory underlying the use of Guttman scales is accepted (Guttman scales were used to construct all FIRO tests) then content validity is a property of the MATE test.

Test administration. The experimenter obtained the following pre-experimental measures in both the non-treatment control and the treatment groups.

1. A frequency count of three problem behaviours was collected by the mother for the problem child and a sibling during the two week baseline period.
2. The Walker Problem Behaviour Identification Checklist (WPBIC) was completed by the mother on the problem child and one sibling.
3. The Missouri Children's Behaviour Checklist (MCBC) was completed by the mother on the problem child and one sibling.
4. The Hereford Parent Attitude Survey was completed by the mother.
5. The Marital Attitude Evaluation Scale (MATE) was completed by the wife in each two-parent family.
6. Basic demographic data was collected during the initial interview with the parents.
7. The WPBIC and the MCBC was completed by the teacher of the problem child.

All of the above mentioned measures were collected during the two week baseline period. Post-experimental measures, identical to the pre-test measures were collected with the exception of the demographic survey. These post measures were collected during the initial two week period following the termination of the treatment programme.

Three months following the formal programme mothers were again asked to complete the WPBIC and the MCBC for both the problem child and the sibling. In addition, mothers were also asked to record the occurrence of the three problem behaviours for both the problem child and a sibling.

CHAPTER III

RESULTS

Hypotheses

(A) Target Problem-Behaviour Decrement

It was predicted that training parents to use the techniques and principles outlined in the Directive Parental Counseling Programme would enable them to significantly reduce specific, target-problem behaviours that were being actively displayed by their child. Successful reductions of target, problem-behaviours was operationally defined using the criterion (60% decrease of problem behaviours) that had been used both in past DPC research and in the general literature. This reduction would be significantly greater for the treatment group children than the control group children for the pre-post-treatment period.

(B) Response Generalization of the Problem Child

Training in the DPC programme would produce changes in the desired direction in the parent's attitudes and perceptions of the problem childs behaviour as measured on two behaviour rating scales (Walker Problem Behaviour Identification Checklist, Missouri Children's Behaviour Checklist). In addition, it was hypothesized that the two recorded, non-target, problem-behaviours displayed by the problem child should also significantly decrease. Significant changes in the control group on these measures would not be expected.

(C) Response Generalization of the Reinforcing Agent

It was hypothesized that training in the Directive Parental Counsel-

ing programme would produce changes in the desired direction in parents' attitudes and perceptions towards themselves as effective parents. It was further hypothesized that three parent-selected problem behaviours of a sibling would be significantly reduced following the programme. Finally it was hypothesized that parent's attitudes and perceptions toward the sibling of the problem child would be altered in the desired direction following the DPC programme, as measured on the WPBIC and MCBC. No such changes were hypothesized for the control group.

(D) Stimulus Generalization of the Subject

Training in the Directive Parental Counseling programme would produce changes in the desired direction in teacher's attitudes and perceptions of the problem child's behaviour at post-test as compared to pre-test in the school setting. No such change was hypothesized for control group subjects.

(E) Temporal Generality

It was hypothesized that treatment effects would be maintained three months following termination of the formal treatment programme.

Analyses of Hypotheses

A. Target Problem Behaviour Decrement

The target problem behaviour was recorded for a two week period at pre- and post-treatment. Successful behaviour change was operationally defined as a 60% or greater reduction in the occurrence of this behaviour from baseline level to post-treatment level. This criterion follows previous research in this area (Hyde, 1975; Fulgenzi, 1978; Patterson et al., 1972). To determine the percentage decrement, the daily frequency of the problem behaviour after treatment was subtracted

from the daily, baseline frequency and the difference was then divided by the baseline rate. A list of target behaviours and their percentage decrement is outlined in Table 2a and 2b.

Results of the success-failure analysis for target problem behaviours reveal that twenty-six of thirty-six children in the treatment group were judged treatment successes. In the control group only three of the twenty-six children reached this criterion. A chi square analysis of this difference was significant ($p < .05$). The average percentage reduction across all treatment subjects was 63% with a range of -21% to 100%. The average percentage reduction across all control subjects was 11.81% with a range of -77% to 100%.

B. Response Generalization of the Problem Child

Walker Problem Behaviour Identification Checklist. A 2 x 2 multivariate analysis of variance (MANOVA) with one between factor (Groups: treatment and control) and one within factor (Measurements: pre and post) was computed for the WPBIC raw scores. This analysis included six dependent variables: acting out, withdrawal, distractability, disturbed peer relations, immaturity and total deviancy score. Using Pillai's trace criterion (Timm, 1975) the MANOVA yielded significant effects for Measurements (approximate $F(6,55) = 6.23$, $p < .05$), and Groups x Measurements interactions (approximate $F(6,55) = 2.60$, $p < .05$).

Subsequently a 2 x 2 analysis of variance (ANOVA) with one between subject factor (Groups) and one within subject factor (Measurements) was computed on each of the above mentioned dependent variables. The

Table 2a

Frequency of Problem Behaviours as Observed and Recorded

by Parents Outcome Data for Target Child - Treatment Group

Family I.D.	Problem Behaviour	Daily Baseline Occurrence	Post-Treatment Occurrence	Parent Change	3 Month Follow-Up	Overall % Change
1	1.* Aggressiveness	.86	.14	84%	.07	92%
	2. Noncompliance	2.86	2.5	13%	2.86	0%
	3. Bed wetting	.5	.79	58%	.78	- 56%
2	1. Temper tantrums	8	2	75%	5.7	29%
	2. Aggressiveness	.93	.14	85%	2.57	100%
	3. Irregular bed-time	1.0	0	100%	.43	57%
3	1. Noncompliance	16	3.86	76%	2.43	85%
	2. Aggressiveness	6	2.29	62%	8.28	- 38%
	3. Temper tantrums	.9	0	100%	1.76	- 95%
4	1. Noncompliance	1.5	.57	62%	.57	62%
	2. Self-derogatory remarks	.36	.14	61%	0	100%
	3. Teasing Siblings	.86	.29	66%	.14	84%
5	1. Noncompliance	2.5	1.86	26%	2.71	- 8%
	2. Complaining	.71	1.86	-100%	1.71	8%
	3. Not doing Chores	.79	1.0	- 27%	1.57	- 98%

* Target Behaviour

Family I.D.		Problem Behaviour	Daily Baseline Occurrence	Post-Treatment Occurrence	Parent Change	3 Month Follow-Up	Overall % Change
6	1.	Grunting	11.21	12.21	- 9%	5.3	53%
	2.	Placing things in mouth	7.64	10.71	- 40%	3.7	52%
	3.	Baby Talk	7.14	8.35	- 17%	3.7	48%
7	1.	Screaming	2.0	1.5	25%	.21	90%
	2.	Throwing Things	2.21	.64	71%	.14	94%
	3.	Enuretic	2.64	2.29	13%	3.07	- 32%
8	1.	Noncompliance	5.0	2.0	60%	.29	94%
	2.	Teasing	2.21	.64	60%	.29	94%
	3.	Table Manners	3.0	2.0	33%	.14	95%
9	1.	Noncompliance	11.	4.21	62%	22.6	-100%
	2.	Nagging-Whining	4.86	5.21	- 7%	13.5	-100%
	3.	Repeating Self	8.5	10.36	- 22%	20.4	-100%
10	1.	Aggressiveness	4.29	1.14	73%	.5	88%
	2.	Grooming	5.14	2.71	47%	.29	94%
	3.	Yelling	7.93	1.93	76%	.64	92%
11	1.	Table Manners	2.5	0	100%	.07	97%
	2.	Not completing Chores	1.71	.71	58%	.07	96%
	3.	Temper Tantrums	2.64	.43	84%	.21	92%
12	1.	Aggressiveness	2.5	.21	92%	1	60%
	2.	Non-compliance	1.0	.21	100%	.14	86%
	3.	Selfishness-Hoarding	1.14	.29	75%	0	100%

Family I.D.	Problem Behaviour	Daily Baseline Occurrence	Post-Treatment Occurrence	Parent Change	3 Month Follow-Up	Overall % Change
13	1. Temper Tantrums	1.43	.36	75%	.5	65%
	2. Noncompliance	1.0	.21	79%	.63	37%
	3. Lying	.14	.29	-100%	0	100%
14	1. Screaming	1.14	1.14	0%	.07	98%
	2. Sleeping Habits	2.0	2.0	0%	.64	64%
	3. Overactive	.5	.5	0%	.43	14%
16	1. Aggressiveness	2.86	1.0	65%	.71	75%
	2. Noncompliance	.36	.07	81%	.36	0%
	3. Teasing	1.64	.57	65%	.86	48%
17	1. Temper	1.21	.29	76%	0	100%
	2. Noncompliance	4.43	3.64	18%	.93	79%
	3. Aggressiveness	1.21	.14	88%	.29	76%
18	1. Talking Back	1.36	.07	95%	1.6	- 18%
	2. Noncompliance	2.93	.29	90%	2.4	18%
	3. Overactive	.71	.14	80%	.56	21%
19	1. Talking Back	2.0	.36	82%	1.14	43%
	2. Not doing Chores	1.29	1.0	22%	.07	94%
	3. Bad with Company	.93	.21	77%	.36	61%
20	1. Interrupting	.79	.21	73%	.07	91%
	2. Grooming	.64	.36	44%	.29	55%
	3. Complaining	.43	.21	51%	.29	33%

Family I.D.	Problem Behaviour	Daily Baseline Occurrence	Post-Treatment Occurrence	Parent Change	3 Month Follow-Up	Overall % Change
21	1. Complaining	7.43	2	73%	4.7	38%
	2. Slowness	4.64	4.36	6%	5.4	- 16%
22	1. Teasing	6.0	1.36	77%	3.36	44%
	2. Aggressiveness	3.0	1.14	62%	.93	69%
	3. Chores	3.0	.21	93%	2.5	17%
24	1. Whining	3.43	.64	81%	.42	88%
	2. Noncompliance	3.43	.71	79%	.5	85%
26	1. Table Manners	.64	.43	33%	.43	33%
	2. Aggressiveness	2.64	.5	81%	.36	86%
	3. Enuretic	.79	.86	- 9%	.86	- 9%
28	1. Argumentive	1.0	1.21	- 21%		
	2. Enuretic	.36	.36	0%		
	3. Noncompliance	1.0	1.21	- 21%		
29	1. Noncompliance	1.86	.71	62%	2.36	- 27%
	2. Whining	1.5	1.5	0%	1.86	- 24%
	3. Toilet Training	4.5	2.86	36%	1.86	59%
30	1. Noncompliance	1.36	.21	85%	.43	68%
	2. Talking Back	2.0	.86	57%	.93	54%
	3. Complaining	1.36	.14	89%	.21	85%

Family I.D.	Problem Behaviour	Daily Baseline Occurrence	Post-Treatment Occurrence	Parent Change	3 Month Follow-Up	Overall % Change
31	1. Noncompliance	2.71	.57	79%	.57	79%
	2. Talking Back	.64	.21	67%	.07	89%
	3. Whining	1.43	.29	80%	.14	90%
32	1. Destructive	.43	.21	51%	.14	67%
	2. Noncompliance	1.0	.57	43%	.14	86%
	3. Chores	1.0	.29	71%	.07	93%
33	1. Spitting	1.0	0	100%	.60	40%
	2. Noncompliance	.84	.14	83%	.14	83%
	3. Chores	.07	0	100%	0	100%
34	1. Table Manners	1.29	.43	67%		
	2. Temper	1.0	0	100%		
	3. Noncompliance	2.79	2.43	13%		
35	1. Teasing	2.43	1.43	41%	1.07	56%
	2. Argumentive	1.93	1.64	15%	.71	63%
	3. Selfish	1.14	.64	44%	0	100%
36	1. Not Doing Chores	.57	.21	63%	.57	0%
	2. Talking Back	1.0	.07	93%	.21	79%
	3. Teasing	.64	.07	86%	.36	28%
37	1. Sleeping Habits	.64	.14	78%	.21	67%
	2. Grooming	.43	.07	84%	.07	84%
	3. Not Doing Chores	.64	.07	89%	.07	89%

Family I.D.		Problem Behaviour	Daily Baseline Occurrence	Post-Treatment Occurrence	Parent Change	3 Month Follow-Up	Overall % Change
38	1.	Temper	2	1.27	37%		
	2.	Noncompliance	1.14	1.72	- 51%		
	3.	Dressing	1.43	.27	81%		
39	1.	Noncompliance	1.21	.36	70%	.36	70%
	2.	Argumentive	.64	.29	55%	.21	67%
	3.	Talking Back	.43	.07	84%	.29	33%
40	1.	Sleeping Habits	.36	.07	81%	0	100%
	2.	Whining	.14	0	100%	0	100%
	3.	Mealtime Manners	1.0	.14	86%	.14	86%

Table 2b

Frequency of Deviant Behaviours as Observed and Recorded by Parents: Outcome Results for Target Child, Control Group

Family I.D.	Problem Behaviour	Pre-Treatment Baseline	Post Treatment	Parent Change
100	1.* Teasing Dog	2.93	4.36	- 49%
	2. Talking Back	2.43	2.64	- 9%
	3. Noncompliance	1.71	1.36	20%
101	1. Sleeping Habits	1.0	1.0	0%
	2. Noncompliance	2.0	1.43	29%
	3. Arguing	1.0	1.36	- 36%
102	1. Temper	1.0	1.14	- 14%
	2. Lying	1.0	.36	64%
	3. Arguing	1.0	.93	7%
103	1. Arguing	.79	1.0	- 27%
	2. Noncompliance	2.0	1.0	50%
	3. Fighting	1.0	1.21	- 21%
104	1. Talking Back	1.0	1.14	- 14%
	2. Arguing	2.43	1.64	33%
	3. Pouting	2.14	.86	60%
105	1. Slow-pokiness	1.0	.42	58%
	2. Whining	1.14	.57	50%
	3. Teasing	1.21	.71	41%

* Target Behaviour

Family I.D.	Problem Behaviour	Pre-Treatment Baseline	Post Treatment	Parent Change
106	1. Sleeping Habits	1.64	1.36	17%
	2. Not Doing Chores	2.48	2.48	0%
	3. Getting-up	1.86	.86	54%
107	1. Over-sensitive	.82	.59	28%
	2. Pouting	.21	.14	33%
	3. Noncompliance	.64	.58	9%
108	1. Homework	.86	.64	26%
	2. Rubbing Eyes	.43	1.0	-100%
	3. Eating Habits	1.0	.93	7%
109	1. Noncompliance	3.5	3.36	4%
	2. Homework	1.0	1.0	0%
	3. Chores	.21	.43	-100%
110	1. Noncompliance	10.6	9.36	12%
	2. Temper	4.4	5.21	- 18%
	3. Crying	2.14	2.0	7%
111	1. Bed Wetting	1.0	0	100%
	2. Aggressive	1.0	1.0	0%
	3. Noncompliance	1.0	1.0	0%
112	1. Aggressive	.93	.86	8%
	2. Abusive to Pet	1.0	1.14	- 14%
	3. Argumentive	7.0	6.36	9%

Family I.D.	Problem Behaviour	Pre-Treatment Baseline	Post Treatment	Parent Change
113	1. Argumentive	.93	1.14	- 22%
	2. Noncompliance	.50	.46	8%
	3. Grooming	.64	.42	34%
114	1. Self Derogatory Statements	.36	.42	- 17%
	2. Complaining	.86	.78	9%
	3. Noncompliance	.43	.35	19%
117	1. Rudeness	.79	.57	28%
	2. Noncompliance	.36	.64	- 78%
	3. Complaining	.43	.64	- 49%
119	1. Noncompliance	2.14	3.0	- 40%
	2. Lying	1.5	1.36	9%
	3. Fighting	2.43	3.14	- 29%
120	1. Not Doing Chores	1.0	1.0	0%
	2. Talking Back	3.0	3.64	- 21%
	3. Yells-Teases	1.0	1.21	- 21%
121	1. Noncompliance	5.93	2.43	59%
	2. Fighting	6.36	4.0	37%
	3. Bed Wetting	3.36	3.0	11%
122	1. Nail Biting	.91	.25	73%
	2. Teasing	1.46	.69	53%
	3. Not Doing Chores	.79	.41	48%

Family I.D.		Problem Behaviour	Pre-Treatment Baseline	Post Treatment	Parent Change
123	1.	Noncompliance	1.86	1.93	- 4%
	2.	Not Doing Chores	.93	.92	1%
	3.	Teasing	.14	.36	-100%
124	1.	Not Replacing Things	1.43	1.0	30%
	2.	Table Manners	.86	1.76	-100%
	3.	Lazy Speach	3.14	1.14	64%
125	1.	Noncompliance	1.5	1.0	33%
	2.	Oversensitive	0	.36	
126	1.	Pouting	.14	0	100%
	2.	Not Doing Chores	.14	0	100%
	3.	Noncompliance	.64	0	100%
127	1.	Teasing	2.86	3.0	- 5%
	2.	Not Completing Tasks	.86	1.0	- 16%
	3.	Chores	1.0	.78	22%
128	1.	Not Doing Chores	.36	.64	- 77%
	2.	Not Cleaning Room	.50	.50	0%
	3.	Not Doing Homework	.36	.21	42%

means of each of the dependent variables are presented in Table 3. The ANOVA summary tables for the dependent variables which showed a significant interaction effect ($p < .05$) are presented in Tables 4 - 6.

The ANOVA analysis reveals that there was a significant Measurement effect (i.e., combined data from both treatment and control children indicated that both groups improved from pre- to post-measurements) for all dependent variables but immaturity. Significant Group x Measurement interactions were revealed for acting out, distractability and total score. Simple effects analyses revealed that parents in the treatment group perceived their children as better adjusted on all three measures following their participation in the DPC programme. Parents in the control group reported no significant change on any dependent variable. The summary table for the simple effects is outlined in Tables 7 - 9.

Missouri Children's Behaviour Checklist. A 2 x 2 MANOVA with one between factor (Groups: treatment and control) and one within factor (Measurements: pre and post) was computed for the MCBC. This analysis involved eight dependent variables: aggression, inhibition, activity level, sleep disturbance, somatization, socialization and total deviancy score. Using Pillai's trace criterion the MANOVA yielded significant effects for measurements (approximate $F(7,55) = 4.88$, $p < .05$, while the Groups x Measurements approached the .05 significance level $F(7,55) = 2.02$, $p < .068$.

Subsequently a 2 x 2 ANOVA with one between subject factor (Groups) and one within factor (Measurements) was computed on each of the dependent variables. The means of each of these variables are presented in Table 10.

Table 3

Raw Score Means For

Walker Problem Behaviour Identification Checklist for Treatment

and Control Group Pre- and Post-Test - Target Child, Home

Groups	Pre-Post	Acting Out	With-drawal	Distract-ability	Disturbed Peer Relations	Immaturity	Total
1 Treatment	1 Pre	12.75	2.58	6.50	4.53	3.44	30.03
	2 Post	8.56	1.72	3.86	3.36	2.64	20.03
2 Control	1 Pre	9.88	1.85	6.08	3.19	3.46	24.42
	2 Post	8.65	1.23	5.85	3.08	3.50	22.73

Table 4

Analysis of Variance Summary Table

Walker Problem Behaviour Identification Checklist

Acting Out Scale - Target Child - Raw Scores - Home

Source of Variation	SS	df	MS	F
Between Subjects				
Group (A)	58.80	1	58.80	.68
Sub. within groups	5087.05	60	84.78	
Within Subjects				
Pre-Post (B)	270.07	1	270.07	18.10*
Group x Pre-Post	66.30	1	66.30	4.44*
Within Cell	895.13	60	14.92	

*p <.05.

Table 5

Analysis of Variance Summary Table

Walker Problem Behaviour Identification Checklist

Distractability Scale - Target Child - Raw Score - Home

Source of Variation	SS	df	MS	F
Between Subjects				
Group (A)	18.42	1	18.42	.83
Subj. within groups	1338.08	60	22.30	
Within Subjects				
Pre-Post (B)	82.27	1	82.27	24.87*
Group x Pre-Post (AB)	43.77	1	43.77	13.23*
Within Cell	198.46	60	3.31	

*$p < .05$.

Table 6

Analysis of Variance Summary Table

Walker Problem Behaviour Identification Checklist

Total Score - Target Child - Raw Score - Home

Source of Variation	SS	df	MS	F
Between Subjects				
Group (A)	63.56	1	63.56	.13
Subj. within groups	30092.64	60	501.54	
Within Subjects				
Pre-Post (B)	1316.26	1	1316.26	27.88*
Group x Pre-Post (AB)	520.97	1	520.97	11.03*
Within Cell	2832.77	60	47.21	

*$p < .05$.

Table 7

Summary of Analysis of Variance for Simple Effects on the Walker Problem Behaviour Identification Checklist "Acting-out" for the Treatment and Control Groups Pre- vs. Post-test, Target Child Home

Source of Variation	SS	df	MS	F
B at a_1				
(Treatment Pre + Post)	315.72	1	315.72	21.16*
B at a_2				
(Control Pre + Post)	19.50	1	19.50	1.31
Within Cell	895.13	60	14.92	

*$p < .05$.

Table 8

Summary of Analysis of Variance for Simple Effects on the Walker Problem Behaviour Identification Checklist "Distractability" for the Treatment and Control Groups, Pre- vs. Post-Tests - Target Child - Home

Source of Variation	SS	df	MS	F
B at a_1				
(Treatment Pre + Post)	125.28	1	125.28	37.85*
B at a_2				
(Control Pre + Post)	1.08	1	1.08	.33
Within Cell	198.46	60	3.31	

*$p < .05$.

Table 9

Summary of Analysis of Variance for Simple Effects on the Walker Problem Behaviour Identification Checklist "Total" for the Treatment and Control Groups, Pre- vs. Post-Test for the Target Child, Home

Source of Variation	SS	df	MS	F
B at a_1				
(Treatment Pre + Post)	1827.00	1	1827.00	38.70*
B at a_2				
(Control, Pre + Post)	51.48	1	51.48	1.09
Within Cell	2832.76	60	47.21	

*$p < .05$.

Table 10

Means For

Missouri Children's Behaviour Checklist for Treatment and

Control Group, Pre- and Post-Test, Target Child, Home

Groups	Pre-Post	Aggression	Inhibition	Activity Level	Sleep Disturbance	Soma-tization	Social-izatfon	Total
Treatment	Pre	7.44	3.92	5.03	2.05	2.08	5.67	20.50
	Post	5.50	3.72	3.58	1.39	1.25	6.22	15.36
Control	Pre	6.85	3.70	4.22	1.81	1.48	5.81	18.40
	Post	6.19	3.62	4.19	1.70	1.15	5.77	17.19

The ANOVA summary tables for the dependent variables which showed a significant interaction effect ($p < .05$) are presented in Tables 11 and 12.

This analysis revealed that there was a significant measurement effect for all dependent variables except inhibition and socialization. Significant Group x Measurement interactions were revealed for activity level and total deviancy score. Simple effects analyses (Table 13 and 14) revealed that parents in the treatment group perceived their children as better adjusted during Post than Pre measurements for both the activity level score and the total deviancy score. Parents in the control group reported no significant Pre-Post changes.

Secondary behaviours. In addition to asking all parents to record the occurrence of the target problem behaviour, they were also asked to record the occurrence of two additional problem behaviours (see Table 2). This recording was carried out during the first two weeks of the programme and for two weeks following the implementation of the programme. Using a similar criterion for success as the target behaviour (60% or greater reduction) it was found that thirty-seven of seventy behaviours were successfully reduced with treatment children. In the control group only three of fifty-two behaviours were successfully reduced during the same period. A chi square analysis of this difference was significant ($p < .05$). The average percentage reduction for treatment and control group children was 46.02% and 12.19% respectively.

C. Response Generalization of the Reinforcing Agent

Hereford Parent Attitude Survey. A 2 x 2 MANOVA with one between

Table 11

Analysis of Variance Summary Table for the Missouri Children's Behaviour Checklist, "Activity Level Scale" for Treatment and Control Groups Pre- and Post-Test, Target Child, Home

Source of Variation	SS	df	MS	F
Between Subjects				
Group (A)	.32	1	.32	.02
Subj. within group	899.54	61	14.75	
Within Subjects				
Pre-Post (B)	22.29	1	22.29	15.29*
Group x Pre-Post (AB)	15.28	1	15.28	10.48*
Within Cell	88.93	61	1.46	

*$p < .05$.

Table 12

Analysis of Variance Summary Table for the Missouri Children's Behaviour Checklist, "Total Deviancy Scale" for the Treatment and Control Groups, Pre- and Post-Test - Target Child, Home

Source of Variation	SS	df	MS	F
Between Subjects				
Groups (A)	.56	1	.56	.03
Subj. within groups	9577.41	61	157.01	
Within groups				
Pre-Post (B)	377.17	1	377.17	22.46*
Group x Pre-Post (AB)	118.34	1	118.34	7.05*
Within Cell	1024.49	61	16.79	

*$p < .05$.

Table 13

Summary of Analysis of Variance for Simple Effects on the Missouri Children's Behaviour Checklist for the "Activity Level Scale" for the Treatment and Control Group, Pre- vs. Post-Test, Target Child - Home

Source of Variation	SS	df	MS	F
B at a_1				
(Treatment, Pre + Post)	37.85	1	37.85	25.92*
B at a_2				
(Control, Pre + Post)	.01	1	.01	
Within Cell	88.93	61	1.46	

*$p < .05$.

Table 14

Summary of Analysis of Variance for Simple Effects on the Missouri Children's Behaviour Checklist for the "Total Deviancy Scale" for the Treatment and Control Group, Pre- vs. Post-Test, Target Child, Home

Source of Variation	SS	df	MS	F
B at a_1				
(Treatment Pre-Post)	475.55	1	475.55	28.32*
B at a_2				
(Control at Pre-Post)	19.77	1	19.77	1.18
Within Cell	1024.49	61	16.79	

*$p < .05$.

factor (Groups: treatment and control) and one within factor (Measurements: Pre and Post) was computed for the HPAS. This analysis included six dependent variables: confidence, causation, acceptance, understanding, trust and total score. Using Pillai's trace criterion, the MANOVA yielded significant effects for Measurements (approximate $F(6,56) = 2.87$, $p < .05$) and, Group x Measurement interactions (approximate $F(6,56) = 2.25$, $p < .05$).

Following this analysis a 2x2 ANOVA with one between factor (Groups) and one within factor (Measurements) was computed for each dependent variable. The means of each of these variables are presented in Table 15. The ANOVA summary table for the dependent variables which showed a significant interaction effect ($p < .05$) are presented in Tables 16 - 19.

The results indicated that there was a significant measurement effect for the confidence and trust scale. Significant Group x Measurement interactions were computed for the confidence scale, understanding scale, trust scale and total score. Simple effects analyses revealed that parents in the treatment group perceived themselves as being more confident, trusting, and generally a better parent as viewed by a significantly higher total score, after the programme as compared to before the programme. Parents in the control group did not reveal any significant positive changes. However, a significant simple effect was noted on the understanding scale. Control parents became less understanding of their children from pre- to post-measurement. The summary table for simple effects are contained in Tables 20 - 23.

Marital Attitude Evaluation Scale. A 2 x 2 MANOVA with one between factor (Groups: Treatment and Control) and one within factor (Measure-

Table 15

Means For

Hereford Parent Attitude Survey for the Treatment Group and

the Control Group, Pre- and Post-Test

Groups	Pre-Post	Confidence	Causation	Acceptance	Understanding	Trust	Total
Treatment	Pre	3.78	14.36	9.25	12.31	8.11	47.81
	Post	7.47	15.30	10.58	12.86	10.22	56.47
Control	Pre	5.67	13.93	11.41	13.67	7.74	52.70
	Post	6.22	13.15	10.74	11.85	7.22	48.78

Table 16

Analysis of Variance Summary Table

Hereford Parent Attitude Survey "Confidence Scale"

for Treatment and Control Groups Pre- and Post-Test

Source of Variation	SS	df	MS	F
Between Subjects				
Groups (A)	3.15	1	3.15	.04
Subj. within groups	4610.71	61	75.59	
Within Subjects				
Pre-Post (B)	173.84	1	173.84	9.05*
Group x Pre-Post (AB)	76.01	1	76.01	3.96*
Within Cell	1171.15	61	19.20	

*$p < .05$.

Table 17

Analysis of Variance Summary Table

Hereford Parent Attitude Survey, "Understanding Scale" for Treatment and Control Group Pre- and Post-Test

Source of Variation	SS	df	MS	F
Between Subjects				
Groups (A)	.96	1	.96	.02
S within groups	2618.87	61	42.93	
Within Subjects				
Pre-Post (B)	6.67	1	6.67	.86
Group x Pre-Post (AB)	43.34	1	43.34	5.57*
Within cell	474.48	61	7.78	

*$p < .05$.

Table 18

Analysis of Variance Summary Table

Hereford Parent Attitude Survey "Trust Scale"

for Treatment and Control Groups Pre- and Post-Test

Source of Variation	SS	df	MS	F
Between Subjects				
Groups (A)	87.63	1	87.63	1.12
S within groups	4756.48	61	77.98	
Within Subjects				
Pre-Post (B)	30.51	1	30.51	4.20*
Groups x Pre-Post (AB)	53.34	1	53.34	7.34*
Within Cell	443.15	61	7.26	

*$p < .05$.

Table 19

Analysis of Variance Summary Table

Hereford Parent Attitude Survey, "Total Scale"

for Treatment and Control Groups, Pre- and Post-Test

Source of Variation	SS	df	MS	F
Between Subjects				
Group (A)	60.32	1	60.32	.06
S within group	64,579.98	61	1058.69	
Within Subjects				
Pre-Post (B)	336.79	1	336.79	3.39*
Group x Pre-Post (AB)	1,223.28	1	1223.28	12.31*
Within Cell	6,060.93	61	99.36	

*$p < .05$.

Table 20

Summary of Analysis of Variance for Simple Effects on the Hereford Parent Attitude Survey for the "Confidence Scale" Treatment and Control Groups Pre- vs. Post-Test

Source of Variation	SS.	df	MS	F
B at a_1				
(Treatment, Pre + Post)	245.09	1	245.09	12.77*
B at a_2				
(Control, Pre + Post)	4.08	1	4.08	.21
Within Cell	1171.15	61	19.20	

*$p < .05$.

Table 21

Summary of Analysis of Variance for the Simple Effects on the Hereford Parent Attitude Survey for the "Understanding Scale" Treatment and Control Group Pre- vs. Post-Test

Source of Variation	SS	df	MS	F
B at a_1				
(Treatment Pre-Post)	5.44	1	5.44	.70
B at a_2				
(Control, Pre-Post)	44.71	1	44.71	5.75*
Within Cell	474.48	61	7.78	

*$p < .05$.

Table 22

Summary of Analysis of Variance for Simple Effects on the Hereford Parent Attitude Survey for the "Trust Scale" Treatment and Control Group, Pre- Vs. Post-Test

Source of Variation	SS	df	MS	F
B at a_1				
(Treatment, Pre-Post)	80.14	1	80.14	11.04*
B at a_2				
(Control, Pre-Post)	3.65	1	3.65	.50
Within Cell	443.15	61	7.26	

*$p < .05$.

Table 23

Summary of Analysis of Variance for Simple Effects on the Hereford Parent Attitude Survey "Total Scale" for the Treatment and Control Groups, Pre- vs. Post-Test

Source of Variation	SS	df	MS	F
B at a_1				
(Treatment, Pre-Post)	1349.93	1	1349.93	13.59*
B at a_2				
(Control, Pre-Post)	207.45	1	207.45	2.08
Within Cell	6060.93	61	99.36	

*$p < .05$.

ments: Pre and Post) was computed for the MATE. This analysis included ten dependent variables: inclusion behaviour wanted, inclusion behaviour expressed, inclusion feeling wanted, inclusion feeling expressed, control behaviour wanted, control behaviour expressed, control feeling wanted, control feeling expressed, affect wanted, affect expressed. No significant MANOVA effects ($p < .05$) were noted on this test using Pillai's trace criterion.

A 2 x 2 ANOVA with one between subject factor (Groups: Treatment and Control) and one within subject factor (Measurements: Pre-Post) was computed on each of the dependent variables. The means of each dependent variable are presented in Table 24. The ANOVA summary tables for the dependent variables which showed a significant interaction effect ($p < .05$) are presented in Tables 25 and 26.

Analysis reveals that there was a significant Measurement effect only for the affect feeling wanted scale. A significant Group effect was noted for the affect feeling expressed scale. Significant Interaction effects were computed for two scales: inclusion feeling expressed and control behaviour expressed. Simple effects analysis (Table 27 and 28) revealed that wives in the treatment group perceived themselves as expressing more control behaviour toward her husband. Parents in the control group reported no significant changes on these scales during the same period.

Behaviour change of siblings. During the baseline period and the post-treatment period parents were also asked to record three inappropriate behaviours being actively displayed by a sibling of the problem

Table 24

Means For

Marital Attitude Evaluation Scale for Treatment and Control Groups

Pre- and Post-Test

Group		IBW*	IBE*	IFW*	IFE*	CBW*	CBE*	CFW*	CFE*	AW*	AE*
Treatment	Pre	4.41	5.47	4.59	5.29	3.65	3.88	4.59	4.76	4.06	6.18
	Post	4.52	5.47	4.06	4.71	3.82	2.82	4.0	4.24	2.47	5.47
Control	Pre	3.53	3.65	3.65	2.94	3.47	2.65	3.53	2.88	3.41	3.65
	Post	3.12	4.06	3.88	3.41	3.12	2.88	3.59	2.47	3.18	3.65

*Inclusion Behaviour Wanted, Inclusion Behaviour Expressed, Inclusion Feeling Wanted, Includion Feeling Expressed, Control Behaviour Wanted, Control Behaviour Expressed, Control Feeling Wanted, Control Feeling Expressed, Affect Wanted, Affect Expected.

Table 25

Analysis of Variance Summary Table

Marital Attitude Evaluation Scale

"Inclusion Feeling - Expressed" for the Treatment

and Control Groups, Pre- and Post Test

Source of Variation	SS	df	MS	F
Between Subjects				
Groups (A)	56.53	1	56.53	3.21
S within groups	563.94	32	17.62	
Within Subjects				
Pre-Post (B)	.06	1	.06	.06
Group x Pre-Post (AB)	4.76	1	4.76	4.46*
Within Cell	34.18	32	1.07	

*$p < .05$.

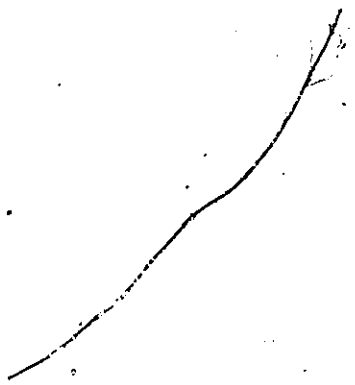

Table 26

Analysis of Variance Summary Table

Marital Attitude Evaluation Scale

"Control Behaviour - Expressed" for the Treatment

and Control Group, Pre- and Post-Test

Source of Variation	SS	df	MS	F
Between Subjects	5.88	1	5.88	.61
Groups (A)	306.88	32	9.59	
Within Groups				
Pre-Post (B)	2.88	1	2.88	2.49
Group x Pre-Post (AB)	7.12	1	7.12	6.16*
Within Cell	37.00	32	1.16	

*$p < .05$.

Table 27

Summary of Analysis of Variance for Simple Effects on the Marital Attitude Evaluation Scale "Inclusion Feeling - Expressed" for the Treatment and Control Groups Pre- Vs. Post-Test

Source of Variation	SS	df	MS	F
B at a_1				
(Treatment Pre-Post)	2.86	1	2.86	2.67
B at a_2				
(Control Pre-Post)	1.88	1	1.88	1.76
Within Cell	34.18	32	1.07	

Table 28

Summary of Analysis of Variance for Simple Effects on the Marital Attitude Evaluation Scale, "Control Behaviour - Expressed" for the Treatment and Control Group Pre- vs. Post-Test

Source of Variation	SS	df	MS	F
B at a_1				
(Treatment Pre-Post)	20.86	1	20.86	17.98*
B at a_2				
(Control Pre-Post)	.45	1	.45	.39
Within Cell	37.00	32	1.16	

*$p < .05$.

child (see Tables 29a and 29b). A 60% or greater reduction criterion was again used to determine the success-failure ratio. It was determined that twenty-eight of sixty recorded behaviours were successfully reduced in the treatment group. For the Control group only nine of fifty-four problem behaviours reached this criterion. A chi-square analysis of this difference was significant ($p < .05$). The average percentage reduction for the Treatment group was 51.96% while the average reduction for the Control group was 16.02%.

Walker Problem Identification Checklist-Sibling. A 2 x 2 MANOVA with one between factor (Groups: Treatment and Control) and one within factor (Measurements: Pre and Post) was computed for the WPBIC raw scores. Using Pillai's trace criterion the MANOVA yielded no significant main or interaction effects. A 2 x 2 ANOVA with one between subject factor (Groups) and one within subject factor (Measurements) was computed on each dependent variable. The means of each of the dependent variables are presented in Table 30. The ANOVA summary table is presented in Table 31.

Results indicate that there was a significant Measurement effect on the withdrawal scale. The interaction effect for the immaturity scale approached the .05 significance level $F(1,39) = 3.67$, $p < .06$. Simple effects analysis of this scale revealed that parents in the treatment group viewed their children as significantly less immature at Post-test as compared to Pre-test ratings. No significant difference was noted for the Control group. The summary table for the simple effects is outlined in Table 32.

Table 29a

Frequency of Deviant Behaviours as Observed and Recorded

by Parents: Outcome Data for Sibling - Treatment Group

Family I.D.	Problem Behaviour	Pre-Treatment Baseline	Post Treatment	Percent Change	3 Month Follow-Up	Overall % Change
1	1. Temper	.71	.71	0%	.21	71%
	2. Aggressive	.5	.14	72%	0	100%
	3. Noncompliance	1.43	2.14	- 50%	2.36	- 65%
3	1. Noncompliance	7.0	3.0	57%	2.43	65%
	2. Whining	4.14	1.86	55%	2.43	41%
4	1. Whining	1.21	.64	47%	.21	83%
	2. Table Manners	.43	.28	35%	.14	67%
	3. Bed Wetting	.64	0	100%	.29	55%
7	1. Noncompliance	2.0	1.57	22%	.43	79%
	2. Not Doing Homework	.5	.29	42%	.14	72%
	3. Not Doing Chores	1.93	.86	55%	1.28	34%
8	1. Noncompliance	5.0	2.0	60%	.57	89%
	2. Arguing	7.0	2.0	71%	.43	94%
	3. Not Doing Chores	1.0	1.0	0%	.57	43%
10	1. Grooming	5.64	2.21	61%	.86	85%
	2. Not Doing Chores	4.0	2.6	35%	.79	80%
	3. Noncompliance	6.43	.93	86%	.64	90%

Family I.D.	Problem Behaviour	Pre-Treatment Baseline	Post Treatment	Percent Change	3 Month Follow-Up	Overall % Change
11	1. Lying	1.64	.36	78%	.14	91%
	2. Imitating Brother	2.43	.21	91%	.07	97%
	3. Teasing	2.43	.64	74%	.86	65%
12	1. Screaming	3.0	.29	90%	1.5	50%
	2. Clinging	2.21	.14	94%	.86	60%
13	1. Teasing	.71	.36	49%	.38	46%
	2. Tattling	0	0			
	3. Pouting	.43	.16	63%	.25	42%
16	1. Whining	2.8	.76	73%	.71	75%
	2. Screaming	1.36	.22	84%	.21	85%
	3. Sullen	1.34	.54	60%	.57	57%
17	1. Teasing	2.8	1.64	41%	.64	77%
	2. Noncompliance	2.21	1.88	15%	.36	84%
	3. Tantrums	.21	0	100%	.14	33%
19	1. Nose Picking	2.0	.14	93%	.21	76%
	2. Tantrums	.86	1.21	- 41%	.86	0%
21	1. Arguing	1.86	1.86	0%	.29	84%
	2. Talking Back	.21	.36	- 71%	.07	67%
	3. Teasing	.64	.56	13%	.21	67%
22	1. Fighting	3.0	.21	93%	1.36	55%
	2. Tantrums	2.0	.71	65%	1.14	43%
	3. Not Doing Chores	2.0	.42	79%	.93	54%

Family I.D.	Problem Behaviour	Pre-Treatment Baseline	Post Treatment	Percent Change	3 Month Follow-Up	Overall % Change
26	1. Temper	1.86	.07	96%	.43	77%
	2. Playing with Stereo	0	0			
	3. Bed Wetting	.64	.29	55%	.36	44%
32	1. Whining	1.5	.71	53%	.36	76%
	2. Demanding, Bold	.43	.14	67%	.29	33%
	3. Moody	.79	.29	63%		
33	1. Whining	2.86	.86	70%	.42	68%
	2. Aggressive	1.3	.14	89%	.50	64%
	3. Bold, Demanding	1.4	.43	69%	.14	90%
35	1. Not Doing Chores	2.86	3.21	- 12%	1.29	55%
	2. Crying	1.86	1.86	0%	.71	62%
	3. Sleeping Habits	1.0	1.0	0%	.79	21%
36	1. Not Doing Chores	1.07	.57	47%	.57	46%
	2. Arguing	.64	.42	34%	.07	89%
	3. Teasing	.57	.14	75%	.36	37%
40	1. Pouting	.50	.07	86%	.07	86%
	2. Crying	.43	.07	84%	0	100%
	3. Table Manners	.33	.07	79%	0	100%

Table 29b

Frequency of Deviant Behaviours as Observed and Recorded by Parents: Outcome Results for Sibling - Control Group

Family I.D.	Problem Behaviour	Pre-Treatment Baseline	Post Treatment	Percent Change
101	1. Bed Wetting	1.0	1.0	0%
	2. Argumentive	4.0	2.86	28%
	3. Not Doing Chores	2.0	1.36	32%
102	1. Lying	0	.14	
	2. Arguing	.79	3.0	-100%
	3. Whining	1.0	0	100%
104	1. Talking Back	3.36	1.21	64%
	2. Arguing	1.43	1.64	- 15%
	3. Noncompliance	4.93	1.93	61%
105	1. Teasing	1.36	.64	53%
	2. Argumentive	.93	.37	60%
	3. Table Manners	.14	.14	0%
106	1. Grooming	1.93	1.36	30%
	2. Not Doing Chores	2.0	1.14	43%
	3. Argumentive	1.93	.78	60%
107	1. Teasing	.43	1.43	-100%
	2. Grooming	2.21	1.5	32%
	3. Noncompliance	.43	.57	- 19%

Family I.D.		Problem Behaviour	Pre-Treatment Baseline	Post Treatment	Percent Change
108	1.	Not Completing Tasks	2.43	1.36	44%
	2.	Complaining	1.36	1.36	0%
	3.	Sleeping Habits	1.43	.57	60%
109	1.	Noncompliance	3.14	3.0	4%
	2.	Argumentive	2.64	2.36	11%
	3.	Whining	2.43	2.0	18%
110	1.	Noncompliance	5.5	6.36	- 16%
	2.	Aggressive	2.93	1.93	34%
	3.	Withdraws	1.0	.93	7%
111	1.	Talks Back	.64	.71	- 11%
	2.	Noncompliance	.71	.63	11%
	3.	Teasing	1.0	.86	14%
113	1.	Argumentive	1.36	1.21	11%
	2.	Not Doing Chores	.14	.63	-100%
	3.	Not Completing Tasks	.64	.64	0%
114	1.	Noncompliance	.43	.43	0%
	2.	Not Completing Tasks	.36	.42	- 17%
	3.	Dressing	2.0	1.86	7%
119	1.	Noncompliance	2.64	3.0	- 14%
	2.	Lying	1.21	1.34	- 11%
	3.	Fighting	1.86	3.14	- 69%

Family I.D.	Problem Behaviour	Pre-Treatment Baseline	Post Treatment	Percent Change
120	1. Sulks	.43	.64	- 49%
	2. Talking Back	0	.86	
	3. Lying	.5	.34	32%
121	1. Tantrums	7.93	2.79	65%
	2. Whining	6.43	4.21	35%
	3. Talking Back	8.34	2.14	74%
122	1. Not Doing Chores	.86	.5	42%
	2. Noncompliance	.86	.14	84%
	3. Teasing	0	.21	
123	1. Dressing	1.0	1.0	0%
	2. Homework	.64	.59	8%
	3. Noncompliance	.14	.25	79%
127	1. Crying	.64	.57	11%
	2. Childish Behaviours	3.93	3.21	18%
	3. Toilet Training	4.43	1.21	73%

Table 30

Means For

Walker Problem Behaviour Identification Checklist For Treatment and Control Groups, Pre- and Post-Test - Sibling

Groups	Pre-Post	Acting Out	With-drawal	Distract-ability	Disturbed Peer Relations	Immaturity	Total
Treatment	Pre	8.27	1.64	3.86	2.86	3.00	19.77
	Post	6.77	.91	3.14	2.32	1.59	14.95
Control	Pre	8.37	1.05	3.53	3.00	2.68	18.84
	Post	8.37	.37	3.95	2.68	2.84	18.21

Table 31

Analysis of Variance Summary Table for the Walker Problem Behaviour Identification Checklist "Immaturity Scale" for the Treatment and Control Group Pre- and Post-Test - Sibling - Home

Source of Variation	SS	df	MS	F
Between Subjects				
Group (A)	4.46	1	4.46	.43
Subj. within groups	405.03	39	10.38	
Within Subjects				
Pre-Post (B)	9.56	1	9.56	2.81
Group x Pre-Post (AB)	12.52	1	12.52	3.67*
Within Cell	132.92	39	3.41	

*$p < .06$.

Table 32

Summary of Analysis of Variance of Simple Effects on the Walker Problem Behaviour Identification Checklist "Immaturity Scale" for the Treatment Group and Control Group, Pre- vs. Post-Test, Sibling - Home

Source of Variation	SS	df	MS	F
B at a_1				
(Treatment Pre-Post)	21.87	1	21.87	6.41*
B at a_2				
(Control Pre-Post)	.24	1	.24	.07
Within Cell	132.92	39	3.41	

*$p < .05$.

Missouri Children's Behaviour Checklist-Sibling. A 2 x 2 MANOVA with one between factor (Groups: Treatment and Control) and one within factor (Measurements: Pre and Post) was computed for the MCBC. Using Pillai's trace criterion the MANOVA yielded a significant Group x Measurements effect (approximate $F(7,33) = 2.51$, $p < .05$).

Subsequently a 2 x 2 ANOVA with one between subject factor (Groups) and one within subject factor (Measurements) was computed on each dependent variable. The means of each dependent variable are contained in Table 33. The ANOVA summary tables are presented in Table 34 - 35.

Analysis revealed that there was a significant measurement effect on the aggression scale, socialization scale and total deviancy scale. Group x Measurement interaction effects were noted on the inhibition scale and total deviancy scale. Simple effects of these interaction effects (Table 36 - 37) revealed that the treatment group parents perceived the sibling of the problem child as less inhibited and as generally displaying less deviant behaviour at post-test as compared to pre-test. No changes were noted in the control group between pre- and post-testing.

D. Stimulus Generalization of the Subject

It was hypothesized that any behaviour change displayed by the problem child in the home setting would be generalized to the school setting. To assess this change teachers were asked to complete the WPBIC and the MCBC before and after the DPC programme for both the treatment group and control group target children.

Table 33

Means For

Missouri Children's Behaviour Checklist for the Treatment and Control

Group, Pre- and Post-Treatment, Sibling, Home

Groups	Pre-Post	Aggression	Inhibition	Activity Level	Sleep Disturbance	Somat-ization	Social-ization	Total
Treatment	Pre	5.68	5.63	2.55	1.73	1.55	6.09	17.09
	Post	4.64	4.00	2.27	1.59	.95	6.95	13.45
Control	Pre	5.86	3.67	2.96	1.57	1.19	5.48	15.14
	Post	5.16	4.21	2.89	1.58	1.26	6.11	15.16

Table 34

Analysis of Variance Summary Table for Missouri Children's Behaviour Checklist "Inhibition Scale" for the Treatment and Control Group Pre- and Post-Test, Sibling, Home

Source of Variation	SS	df	MS	F
Between Subjects				
Groups (A)	16.72	1	16.72	1.95
S within groups	451.82	40	11.30	
Within Subjects				
Pre-Post (B)	3.95	1	3.95	1.56
Group x Pre-Post (AB)	34.03	1	34.03	13.40*
Within Cell	99.02	39	2.54	

*$p < .05$.

Table 35

Analysis of Variance Summary Table

Missouri Children's Behaviour Checklist, Total Deviancy Scale for the Treatment and Control Group Pre- and Post-Test, Sibling

Source of Variation	SS	df	MS	F
Between Subjects				
Groups (A)	.32	1	.32	.01
S within Groups	3863.83	40	96.60	
Within Groups				
Pre-Post (B)	61.48	1	61.48	5.71*
Group x Pre-Post (AB)	86.11	1	86.11	8.00*
Within Cell	419.91	39	10.77	

*$p < .05$.

Table 36

Summary of Analysis of Variance for Simple Effects on the Missouri Children's Behaviour Checklist "Inhibition Scale" for the Treatment and Control Group Pre- vs. Post-Test - Sibling

Source of Variation	SS	df	MS	F
B at a_1				
(Treatment Pre-Post)	29.22	1	29.22	11.54*
B at a_2				
(Control Pre-Post)	2.77	1	2.77	1.09
Within Cell	99.02	39	2.54	

*$p < .05$

Table 37

Summary of Analysis of Variance for Simple Effects on the Missouri Children's Behaviour Checklist "Total Deviancy Scale" for the Treatment and Control Group Pre- vs. Post-Test-Sibling

Source of Variation	SS	df	MS	F
B at a_1				
(Treatment Pre-Post)	145.64	1	145.64	13.52*
B at a_2				
(Control Pre-Post)	.003	1	.003	0
Within Cell	419.19	39	10.77	

*$p < .05$.

Walker Problem Behaviour Identification Checklist-School. A 2 x 2 MANOVA with one between factor (Groups: Treatment and Control) and one within factor (Measurements: Pre and Post) was computed for the WPBIC. Using Pillai's trace criterion the MANOVA yielded a significant Group x Interaction effect (approximate $F(6,36) = 2.33$, $p < .05$).

A 2 x 2 ANOVA with one between subject factor (Groups) and one within subject factor (Measurements) was computed on each dependent variable. The means for each dependent variable are contained in Table 38. The ANOVA summary tables are outlined in Tables 39 and 41.

Analysis revealed a significant Group x Measurement interaction effect on the acting out scale, distractability scale and total score. Simple effects of these interaction effects revealed that teachers perceived the treatment group problem children as less distractable and generally less deviant at post-treatment as compared to pre-treatment. No significant changes were noted for the control group across the pre- post-period. The summary tables for the simple effects are outlined in Tables 42 - 44.

Missouri Children's Behaviour Checklist. A 2 x 2 MANOVA using Pillai's trace criterion revealed no significant main or interaction effects on this measure. A 2 x 2 ANOVA with one between subject factor (Groups) and one within group factor (Measurements) was computed for each dependent variable. The means of each dependent variable are presented in Table 45. The ANOVA summary tables are presented in Tables 46 - 47.

Analysis reveals that significance approached the .05 level of

Table 38

Means For

Walker Problem Behaviour Identification Checklist for Treatment and Control Group, Pre- Post-Test, Target Child, School

Groups	Pre-Post	Acting Out	With-drawal	Distract-ability	Disturbed Peer Relations	Immaturity	Total
Treatment	Pre	6.33	2.00	5.81	2.38	1.67	17.71
	Post	4.57	1.80	4.48	1.86	1.38	14.10
Control	Pre	1.91	2.27	3.73	1.50	1.95	11.40
	Post	3.59	1.73	4.23	1.86	2.05	13.45

Table 39

Analysis of Variance Summary Table for the Walker Problem Behaviour Identification Checklist for "Acting Out Scale" Treatment and Control Groups Pre- and Post-Test, Target Child - School

Source of Variation	SS	df	MS	F
Between Subjects				
Group (A)	156.93	1	156.93	3.40
S within Groups	1889.65	41	46.09	
Within Subjects				
Pre-Post (B)	0	1	0	
Group x Pre-Post (AB)	63.71	1	63.71	5.45*
Within Cell	479.29	41	11.69	

*$p < .05$.

Table 40

Analysis of Variance Summary Table for the Walker Problem Behaviour Identification Checklist "Distractability Scale" Treatment and Control Groups, Pre- and Post-Test, Target Child, School

Source of Variation	SS	df	MS	F
Between Subjects				
Group (A)	29.19	1	29.19	
S within Groups	649.62	41	27.83	1.84
Within Subjects				
Pre-Post (B)	3.36	1	3.36	1.24
Group x Pre-Post (AB)	18.06	1	18.06	6.66*
Within Cell	111.08	41	2.70	

*$p < .05$.

Table 41

Analysis of Variance Summary Table for the Walker Problem Behaviour Identification Checklist "Total Score" Treatment and Control Groups Pre- and Post-Test Target Child, School

Source of Variation	SS	df	MS	F
Between Subjects				
Groups (A)	259.17	1	259.17	1.06
S within Groups	10,033.91	41	244.73	
Within Subjects				
Pre-Post (B)	11.17	1	11.17	.48
Group x Pre-Post (AB)	172.37	1	172.37	7.39*
Within Cell	956.95	41	23.34	

*$p < .05$.

Table 42

Summary of Analysis of Variance for Simple Effects on the Walker Problem Behaviour Identification Checklist "Acting Out Scale" for the Treatment and Control Group Pre- vs. Post-Test, Target School

Source of Variation	SS	df	MS	F
B at a_1				
(Treatment Pre-Post)	32.52	1	32.52	2.78
B at a_2				
(Control Pre-Post)	31.04	1	31.04	2.65
Within Cell	479.29	41	11.69	

Table 43

Summary of Analysis of Variance for Simple Effects Checklist "Distractability Scale" Treatment and Control Group, Pre- vs. Post-Test, Target Child, School

Source of Variation	SS	df	MS	F
B at a_1				
(Treatment Pre-Post)	18.57	1	18.57	6.88*
B at a_2				
(Control Pre-Post)	2.75	1	2.71	1.00
Within Cell	111.08	41	2.70	

*$p < .05$.

Table 44

Summary of Analysis of Variation for Simple Effects on the Walker Problem Behaviour Identification Checklist "Total Score" Treatment and Control Group Pre- vs. Post-Test Target Child, School

Source of Variation	SS	df	MS	F
B at a_1				
(Treatment Pre-Post)	136.83	1	136.83	5.86*
B at a_2				
(Control Pre-Post)	46.23	1	46.23	1.98
Within Cell	956.95	41	23.34	

*$p < .05$.

Table-45

Means For

Missouri Children's Behaviour Checklist for the Treatment and Control Groups, Pre- and Post-Test, Target Child School

Groups	Pre-Post	Aggression	Inhibition	Activity Level	Sleep Disturbance	Soma-tization	Social-ization	Total
Treatment	Pre	3.77	3.77	3.50	.27	.82	3.59	12.14
	Post	2.86	3.18	2.91	.23	.73	4.05	9.95
Control	Pre	2.17	3.61	2.83	.09	.87	3.26	9.56
	Post	2.30	3.17	3.13	.09	.91	3.70	10.00

Table 46

Analysis of Variance Summary Table for the Missouri Children's Behaviour Checklist "Activity Level Scale" for the Treatment and Control Group, Pre- vs. Post-Test Target Child, School

Source of Variation	SS	df	MS	F
Between Subjects				
Group (A)	1.15	1	1.15	.12
S within Groups	416.14	43	9.68	
Within Subjects				
Pre-Post (B)	.4	1	.4	.30
Group x Pre-Post (AB)	4.51	1	4.51	3.39*
Within Cell	57.09	43	1.33	

*$p < .07$.

Table 47

Analysis of Variance Summary Table for the Missouri Children's Behaviour Checklist "Total Scale" for the Treatment and Control Groups, Pre- and Post-Test Target Child, School

Source of Variation	SS	df	MS	F
Between Subjects				
Group (A)	35.86	1	35.86	.45
S within Groups	3397.74	43	79.02	
Within Subjects				
Pre-Post (B)	16.04	1	16.04	1.33
Group x Pre-Post (AB)	38.49	1	38.49	3.20*
Within Cell	517.46	43	12.03	

*$p < .08$.

confidence on two scales: Activity level, ($F(1,43) = 3.39$, $p < .07$); Total score, ($F(1,43) = 3.2$, $p < .08$). Simple effects analysis (Table 48 - 49) of these scales indicates that there was a significant change in the problem child noted by the teacher on the total deviancy score at post-test as compared to pre-test. No significant change was noted for the control group problem children.

E. Temporal Generality

Data were collected from thirty-three of thirty-six treatment families three months following the treatment programme. Of the three families that were dropped from the data analysis, two parents could not be reached and one parent was in hospital. The behaviour rating scales from two additional families were lost in the mail. In total, thirty-three families recorded long term home behaviour and thirty-one families completed the required behaviour rating scales for long term data analysis.

Behaviour recording for target behaviours. Successful behaviour change was again operationally defined as 60% or greater reduction in the occurrence of a behaviour from baseline level to 3 months post-treatment level. Results of the success-failure analysis for target problem behaviours revealed that twenty of thirty-three children in the treatment group were judged treatment successes. The average percentage reduction across all subjects was 55% (see Table 2a).

Secondary behaviours. Two additional non-targeted behaviours displayed by the problem child were recorded by the parents. Success-failure analysis revealed that thirty-five of sixty-four behaviours

Table 48

Summary of Analysis of Variance for Simple Effects on the Missouri Children's Behaviour Checklist "Activity Level Scale" for the Treatment and Control Group, Pre- vs. Post-Test, Target Child, School

Source of Variation	SS	df	MS	F
B at a_1				
(Treatment Pre-Post)	3.78	1	3.78	.31
B at a_2				
(Control Pre-Post)	.99	1	.99	
Within Cell	517.46	43	12.03	

Table 49

Summary of Analysis of Variance for Simple Effects on the Missouri Children's Behaviour Checklist "Total Scale" for Treatment and Control Groups Pre- vs. Post-Test Target Child, School

Source of Variation	SS	df	MS	F
B at a_1				
(Treatment Pre-Post)	50.36	1	50.36	4.19*
B at a_2				
(Control Pre-Post)	2.13	1	2.13	.18
Within Cell	517.46	43	12.03	

*$p < .05$.

were judged treatment successes. The average percentage reduction across all subjects was 46%.

Sibling behaviour. Problem behaviours, previously recorded during baseline and post treatment, were again recorded during the long term follow-up period for siblings of the problem child. Analysis revealed that thirty-four of fifty-four behaviours were judged to be treatment successes. The average problem behaviour reduction for siblings in the treatment group was 65%.

Walker Problem Behaviour Identification Checklist. A t test for repeated measures was used to determine significant differences between baseline and long-term measures, and between post-test and long-term measures. No significant differences between post-test and long-term measures were obtained for any scale. However, all means but one (distractability), were reduced in the desired direction. Analysis of baseline - long-term differences revealed significant change ($p < .05$) for five of six scales (acting out, withdrawal, distractability, immaturity, total). A summary of the means for each scale and t test analyses is outlined in Table 50.

Sibling WPBIC. With the exception of two scales (acting out, immaturity) all scores on the WPBIC changed in the desired direction between the post-test and long-term treatment period. However, no differences were significant ($p < .05$) on any scale during this period. Analysis of differences (t test), between baseline measures and long-term measures also failed to reveal significant differences ($p < .05$). Table 50 contains the means and t test data for siblings on the WPBIC.

Table 50

Walker Problem Behaviour Identification Checklist

Treatment Group Means and Significant t test Analyses

Target Child & Sibling Pre- and Post-Treatment & Three Month Follow-Up

Target Child	Acting Out	With-drawal	Distract-ability	Disturbed Peer Relations	Immaturity	Total
Baseline Mean (A)	12.75	2.58	6.50	4.50	3.44	30.02
Post Treatment Mean (B)	8.55	1.72	3.86	3.36	2.63	20.02
Long Term Mean (C)	7.94	1.67	3.87	3.19	2.22	18.77
t test (A & B)	*	-	*	-	-	*
t test (B & C)	-	-		-	-	-
t test (A & C)	*	*	*	-	*	*
Sibling						
Baseline Mean (A)	8.27	1.63	3.86	2.86	3.00	19.77
Post Treatmeant Mean (B)	6.77	.90	3.13	2.31	1.59	14.95
Long Term Mean (C)	8.15	.73	2.95	2.05	1.63	15.52
t test (A & B)	-	-	-	-	-	-
t test (B & C)	-	-	-	-	-	-
t test (A & C)	-	-	-	-	-	-

*$p < .05$.

Missouri Children's Behaviour Checklist. Analysis similar to that conducted to assess change on the WPBIC was again used with this scale. Similar to the WPBIC no significant differences were observed between post-treatment and long-term measures. Means on all but one scale (inhibition) however, were further reduced in the desired direction. A t test analysis to determine differences between baseline and long-term measures revealed significant differences on every scale but inhibition (see Table 51).

Sibling MCBC. A comparison of the means for each scale for baseline measurement and long-term measurement revealed that all scales were changed in the desired direction with one exception (socialization). Analysis of differences by means of a t test between post-test measurements and long-term measurements revealed no significant differences ($p < .05$). Significant differences were observed however, on five scales when comparing baseline measures to long-term treatment measures (aggression, inhibition, sleep disturbance, somatization and total score). Table 51 contains the means and t test data for siblings for long-term treatment measures.

Clinical Analysis of Extra-Conditioning Variables

In any research investigating the effects of treatment it is evident that an assortment of therapist and client extra-conditioning variables have some effect upon treatment outcome. In this investigation one therapist conducted all of the groups so therapist differences across groups were kept to a minimum. This assumption was also

Table 51

Missouri Children's Behaviour Checklist, Treatment Group Means and *t* test Analyses for Target Child and Sibling, Pre- and Post-Test and 3 Month Follow-Up

Target Child	Aggression	Inhibition	Activity Level	Sleep Disturbance	Soma-tization	Social-ization	Total Score
Baseline Mean (A)	7.44	3.91	5.02	2.05	2.08	5.66	20.50
Long Term Mean (C)	5.50	3.72	3.58	1.38	1.25	6.22	15.36
Long Term Mean (C)	4.54	3.80	3.26	1.32	1.16	6.77	14.10
t test (A & B)	*	-	*	*	*	*	*
t test (B & C)	-	-	-	-	-	-	-
t test (A & C)	*	-	*	*	*	*	*
Sibling							
Baseline Mean (A)	5.86	5.63	2.54	1.72	1.54	6.09	17.09
Post Treatment Mean (B)	4.63	4.00	2.27	1.59	.95	6.95	13.45
Long Term Mean (C)	4.50	3.27	2.16	1.00	.88	6.72	11.83
t test (A & B)	-	*	-	-	-	-	*
t test (B & C)	-	-	-	-	-	-	-
t test (A & C)	*	*	-	*	*	-	*

*$p < .05$.

supported by the fact that a specific, detailed programme (DPC) was used and presented to each group in a similar manner.

Ten 1 1/2 - 2 hour sessions were held with each group during the treatment programme. In addition, phone contact was maintained with most families periodically to ensure that their interest was maintained in the programme. Approximately 120 hours of treatment time was required to complete the 10 sessions for the six treatment groups. This works out to approximately 3 contact hours for each family during the treatment programme. Phone contact was maintained on at least a monthly basis following the programme to ensure that parents were continuing to incorporate the principles of the programme. Considering the time spent on phone contact I would estimate that approximately 18 hours in total therapist time were spent with each family. Additional time of approximately three hours per family was required to collect outcome data but this would not be a consideration in non-research oriented programmes.

Allotment to either the treatment group or the control group was conducted using a randomization procedure. This procedure would be expected to minimize group differences. Nine control families failed to complete the required pre-test data and were dropped from the research project. Four treatment families dropped out from this project. Of these four treatment families, one actually completed the programme but moved before post-test data could be collected. Two of the three remaining families attended only one session, while the last family moved after attending three sessions. The average attendance percentage level across all groups was 85% with the number of sessions at-

tended ranging from 6 to 10. At the end of the ten weeks many parents spoke of meeting on a continual basis to discuss other difficulties that they experienced from time to time. Most parents spoke highly of the programme and this appraisal continued during the post-treatment follow-up period.

CHAPTER IV

DISCUSSION

In recent years there has been ample and sufficient data, to support the belief that training parents as behaviour therapists, is an effective method to reduce the display of undesireable behaviours by their children (Berkowtiz & Graziano, 1972; O'Dell, 1974). Forehand, Sturgis, et al. (1977) conclude however, that the information regarding generality of treatment effects is much less clear-cut. This conclusion is certainly supported in an article by Keeley et al., (1976) who have documented data to demonstrate that the generalization issue has been consistently neglected.

The present research has investigated the efficacy of using parents as behaviour therapists for their own problem children using a specific parent training programme incorporating behaviour modification principles. The focus of this investigation has been centred upon the generalization effects of this parent training.

Forehand and Atkison (in press) divide generality into four major categories. These categories are as follows:

1. Behavioural Generality: changes in behaviour not targeted for treatment.
2. Sibling Generality: changes in the behaviour of the treated child's siblings.
3. Setting Generality: the occurrence of treatment effects in settings other than the therapeutic one.

4. Temporal Generality: the maintenance of treatment effect following termination of treatment.

In addition to these four types of generality mentioned by Forehand and Atkison (in press), one other could be distinguished which could be labelled reinforcing agent generality. It has often been demonstrated that behavioural skills taught in a clinic setting do generalize to the home (Eyberg & Johnson, 1974; Patterson, 1974; Peed et al., 1977). However, what is often missed is the effect these new found skills have upon the participant's sense of themselves as parent, and their attitudes towards their spouse. Thus this type of generality would focus upon the perceptual and attitudinal changes that are experienced by the reinforcing agent in regards to themselves.

The present trend towards parent training stems from among other things, a need to give parents the tools to do a job for which they obviously have responsibility. From a treatment point of view, it is evident that if we wish to maximize our professional intervention we must design our training programmes to ensure generalization of treatment effects. This investigation has attempted to investigate all five types of generality using a parent training programme (DPC) that has repeatedly demonstrated its effectiveness in reducing problem behaviours of target children and has evidenced some generalization effects in previous, related investigations.

Behavioural Generality

Target problem behaviour. Prior to assessing whether the effects

of a programme have been generalized to other behaviours it is first necessary to determine whether the target, problem behaviour has been reduced. In the present study thirty-six problem children were the focus of attention by their parents. In the treatment programme parents were assisted to systematically reduce the occurrence of these problem behaviours. Following treatment intervention a statistical comparison was made between the number of times the problem behaviour occurred during pre- and post-intervention periods. This analysis revealed a significant decrease of targeted problem behaviours for the treatment group but not for the control group. Twenty-six of thirty-six problem behaviours were classified as successfully reduced using a rigid criterion level of success in the treatment group. Of the remaining ten children three appeared to display more of the problem behaviours while the remaining seven decreased the display of undesireable behaviours by at least 25%. These results would certainly support the conclusion that training parents to use behaviour modification techniques to change specific problem behaviours is effective.

Non-targeted behaviour problems. If the programme focusses upon general behaviour change principles (as does the DPC) then the skills learned by the parents should effect changes in problem behaviours that were not specifically focussed upon. Only a few studies have recorded target and non-target problem behaviours (Patterson, 1974b; Patterson et al., 1973; Wiltz & Patterson, 1974; Zeilberger, Sampen & Sloane, 1968). In the present investigation thirty-seven of seventy ancillary behaviours were successfully reduced using the same rigid success cri-

terion of 60% or greater decrement. This success ratio was significantly different from that of the control group who recorded only three behaviours that could be classified as a success. These findings certainly appear to support the hypothesis that the DPC programme training did help parents to change both the focussed-upon, target behaviour and other behaviours that were not specifically dealt with during the treatment programme.

Parent perceptions toward problem child. A second analysis of behavioural generality has been carried out using two formal behaviour checklists (Walker Problem Behaviour Identification Checklist; Missouri Children's Behaviour Checklist). Positive changes in parents' perceptions of and attitudes toward the problem child as determined by a reduction in mean sub-test scores is demonstrated on every scale on both tests. Of the fifteen scales five were computed to be significantly changed in the desired direction ($p < .05$) between the pre- and post-treatment period for the treatment group (WPBIC: Acting Out, Distractability, Total Score; MCBC: Activity Level, Total score.) No significant pre- post-changes were noted for the control group.

These results would certainly support the contention that training parents through the DPC programme teaches skills to change not only specific target behaviours, but also trains these parents to generalize these behaviour modification skills to alter additional behaviours in both specific instances and in global assessments of their child's behavioural disposition.

The finding that both the parental recording of non-targeted behaviours and the behaviour checklists have changed in the desired direction,

offer strong support for behavioural generality. Many research articles have solely relied upon informal statements by parents about behaviour change of non-targeted behaviours. Patterson and his associates have conducted a number of studies in which independent observers recorded both targeted and non-targeted behaviours (Patterson, 1974b; Patterson et al., 1973; Patterson & Reid, 1973; Wiltz & Patterson, 1974). In all of these studies non-significant decreases in non-targeted behaviours occurred. Patterson concluded that his programme demonstrated only minimal effectiveness in terms of behavioural generality.

Other studies have attempted to assess multiple behaviour change using a multiple baseline design (Moore & Bailey, 1973). The problem that arises here however, is that generalization of treatment effects is undesireable in such a design and as Forehand and Atkison (in press) suggest, this occurrence is likely to lead to unpublishable results. Wahler (1975) took a different tact and recorded parental responses to non-targeted behaviours. He observed that parental responses changed in relation to some types of behaviour but not to others. He concluded that parents' use of consequences might effect change in some non-targeted behaviours but could not account for others.

It would appear that support for or against behaviour generality may be determined by the type of assessment that is conducted. To date, there has been much disagreement concerning the most accurate form of behavioural recording. Additional work in this area will have to be concluded before accurate global statements can be made relating to behavioural generality.

Sibling Generality

It is not unusual for parents to disclose that they desperately need a method or system that works with all children rather than just the problem child. Siblings of the problem child often display many behaviour problems that may not be as troubling as those of the target child to the parent but are still cause for concern. Certainly any programme that is to be maximally effective should be designed to give the parents the skills to control most undesireable behaviours that are displayed by any child in the family.

Forehand and Atkison (in press) have outlined three of the major reasons why we would expect to find sibling generalization in any behaviour modification programme: (a) straight generalization of the parent's new found skills to other family situations; (b) observational learning and modelling effects; (c) reduced sibling reinforcement for undesireable behaviour. Past research has evidenced some support for sibling generality but repeated methodological weaknesses have blurred this support.

In the present study, we have asked parents to use the same evaluation techniques as were used with problem children to assess change in the closest-in-age sibling. Behavioural recordings and behaviour checklists were completed by parents.

Behaviour recordings. Parents were asked to record three problem behaviours that were actively displayed by the sibling of the target, problem child. Analysis of pre- to post-treatment period differences revealed that a large number of sibling problem behaviours were successfully reduced in the treatment group using the 60% reduction success

criterion. The improvement in the treatment group was significantly better than that in the control group. Sibling problem behaviours were reduced by approximately 52% in the treatment group but only by 16% in the control group.

Behaviour checklists.- On the behaviour checklists (WPBIC; MCBC), positive changes in parents' perceptions toward the sibling were again evident as deduced by the lowered mean on every scale. However, only two scales evidenced significant pre- post-differences for the treatment group (WPBIC: Immaturity; MCBC: Inhibition). No significant changes were noted for the control group.

The assessed sibling behaviour changes were certainly not as impressive as were those of the target child. This would be expected in that a deliberate focus was directed toward the target child but not to the sibling. However, the skills that the parents have learned do appear to be generalizing towards other family members. It is interesting to note that many of the perceptual changes in the target child relate to acting-out type behaviours. Alternately, perceptual changes by the parents towards siblings relate more to a reduction in withdrawal-type behaviours. One might hypothesize that as the target problem child becomes less active, the inhibited sibling becomes more active. The effects of one sibling's behaviour upon the other would certainly be worthy of additional research.

Setting Generality

Setting generality has been investigated by focussing upon the consistenty of parents' behaviour from the clinic to the home (Glogower

& Sloop, 1976; Kifer, Lewis, Green & Phillips, 1974; Wagner, 1972). Other studies have relied upon the verbal reports of relatives and friends (Forehand et al., 1974, Johnson & Brown, 1969). In the present study, concurrent change within the school setting has been investigated. Few studies have been conducted to investigate setting generality in this area but all of those with the exception of one (Fulgenzi, 1978) have evidenced minimal change using teachers' verbal report measures (Forehand et al., 1977; Johnson et al., 1976; Skindrud, 1972; Wahler, 1969, 1975). In fact a number of these studies revealed an increase in school oppositional behaviour as home oppositional behaviour decelerated (Johnson et al., 1976; Wahler, 1975).

In the present investigation teachers were asked to complete the two behaviour checklists that had been completed by the parents, before and after the treatment period. Analysis of these measures revealed that three scales evidenced significant pre- post-changes in the desired direction for the treatment group (WPBIC: Distractability, Total score; MCBC: Total score). No significant change was observed for the control group. These results indicate that the treatment group behaviour did change in the desired direction in the school setting.

Comparing the responses on these behaviour checklists completed by the parents to those of teachers, reveals a good deal of overlap. School assessment evidenced change on three of the five scales that were reduced in the home setting. This finding certainly verified the parents' perception of change using behaviour checklists. In addition, it suggests that change of general problem behaviours in one setting does

spread to other unrelated settings. The question that must be responded to, however, relates to stimulus control. If the reinforcing agent succeeds in changing problem behaviours in one setting and this change generalizes to other settings, what happens to the reinforcing agent in that new setting. Does he inadvertantly reinforce this newly displayed behaviour and thus strengthen it? Does he ignore it, thus allowing it to weaken over time? Is the parents continued reinforcement of it in the home significant enough to strengthen it in other settings? These questions might well be answered in long term evaluations of children in different settings.

Reinforcing Agent Generality

If the parent who employs behavioural techniques experiences some success in reducing the display of problem behaviours, it might be expected that their attitudes towards themselves as an effective parent would change in the desired direction. To assess this possibility a parent attitude survey was completed by all reinforcing agents. Analysis revealed that there were significant pre- post-changes in the desired direction for the treatment group on a number of scales (Confidence, Trust, Total Score). No such positive changes were noted for the control group and in fact, control group parents scored significantly lower on the understanding scale following the treatment period. These results reveal that the treatment group parents felt much more confident in their parental role, and allowed their child more freedom to make their own decisions. In fact, they appeared to feel much better about them-

selves as parents in general as shown by the significant change in total score on this survey.

Taking this analysis one step further, it was hypothesized that the wife's relationship might change towards her husband if she suddenly found herself dealing more effectively with her children. The Marital Attitude Evaluation Scale was used to assess change in this area. Analysis revealed that only one of ten scales in both the treatment and control group evidenced a significant change across the treatment period. Wives in the treatment group scored significantly lower on the control behaviour scale after treatment as compared to before treatment. Schutz (1958) states that "control behaviour" refers to the decision making process between people and focusses upon the areas of power, influence, and authority. On the MATE test, the items comprising this scale consist of statements relating to the husband's need for more freedom to make his own decisions, choose his own activities and generally to have fewer limits placed on his life by his wife. Following the treatment the wife perceived herself as being less demanding and directive towards her husband. Conversation with some mothers following the programme revealed that they were using more positive consequences with their husbands as well as their children. Mothers may therefore have experienced that they could have more of their needs satisfied by being less restrictive of their husbands activities. Change in this area is not altogether surprising as many mothers wanted information on how the behaviour modification principles could be used with their husbands. In addition, it is observed that mothers learned to place more trust in their children

during the treatment programme. It appears that they may also have learned to trust their husbands more as indicated on the lowered control behaviour scale.

Temporal Generality

It is evident from past research (general field of parent training and DPC research) that parents can modify their children's behaviour (Keeley et al., 1976). It is critical however, to distinguish between prosthetic environments (changes only during treatment), and therapeutic environments (changes maintained beyond treatment conditions), (Kazdin & Bootzin, 1972).

Similar to other generalization effects, many researchers have chosen to assess long term effects through interviews, telephone contacts or global rating scales. This is evident in past DPC research (Hyde, 1975; Capanzano, 1976; Fulgenzi, 1978) and in the general field of parent training (Rimm, Vernon & Wise, 1975). Only a small percentage of studies in the field of behaviour therapy have used hard data to determine long term effects of treatment.

Forehand and Atkinson (in press) state that behavioural measures offer a more objective approach to assessment than verbal reports. Parent recordings of problem behaviours (Glogower & Sloop, 1976), tape recorded assessments (Arnold, Sturgis & Forehand, 1978), and independent observers (Patterson, 1974a, 1974b) have all been used to assess long term treatment effects. In the present study parent recordings of problem behaviours were collected for a two week period, three months following treatment. Behaviour checklists were also completed at this time.

Behaviour recordings. The display of inappropriate target behaviours as recorded by parents has slightly increased if we look at the ratio between success and failure cases at the post-treatment period (26:10), and long-term period (20:13). In addition, the overall percentage of target behaviour change has been reduced from 63% (post-treatment) to 55% (long-term). These findings are not surprising when one considers that target behaviours were recorded immediately following the completion of the programme. At that time, the parents had just finished the "star chart" portion of the programme which is a structured technique to reduce a specific behaviour.

Consistency was maintained in regards to the two additional problem behaviours, that were recorded for the target child. Average percentage decrease was identical for both periods (46%) and the success-failure ratio was very similar (37:33 post-treatment; 35:29 long-term). These results certainly support the hypothesis that the effects of the programme do generalize across time.

A somewhat surprising findings is the observation that parents have recorded more problem behaviour decrement for the siblings as compared to the target child. Parent behaviour recordings showed an average reduction of 55% for target children and 65% for siblings when assessed three months following the treatment. It is possible that these children being seen as less of a problem by their parents, (and therefore more receptive to their parents before treatment), might have been better able to respond to their parent's new found consistency and organization. This observation may not have been

noted immediately following treatment because the major focus was upon the problem child. Alternatively, there is always the possibility that parents became much more tolerant of certain types of behaviours and no longer defined some of these problems as serious enough to warrant attention. Discussion with parents did not reveal any information that might add to the hypotheses.

Behaviour rating scales: (WPBIC & MCBC). For the target child, all changes that were significant at post-treatment assessment were maintained three months following treatment on both tests. In addition, two scales on the WPBIC (withdrawal & immaturity), and two scales on the MCBC (sleep disturbance & somatization) which had revealed no significant baseline - post-test change ($p < .05$), did evidence significant baseline - long-term change. These findings add further support to the belief that parents have incorporated the principles of the programme, and continue to use them effectively with the target child to reduce the occurrence of general behaviour problems.

Changes in the behaviour ratings scales were also noted for the sibling. Means for the various scales measuring maladaptive behaviour were typically lower on both the WPBIC and the MCBC, at long term assessment than at post-treatment assessment. The one scale on the WPBIC that had evidenced a significant change at post-treatment did not maintain that change, but in fact the scale had increased only slightly, but enough to reduce the significant level ($p < .10$), beyond that which was accepted in this study. On the MCBC two addi-

tional scales (sleep disturbance & inhibition) evidenced significant change that was not evident at the post-treatment assessment.

These findings reflect the fact that parents' perceptions of their children appear to be getting progressively more positive. They are not only perceiving the target behaviours being weakened, they are also perceiving global changes in their child. For some parents the change is quite evident and they have excitedly informed the therapist that their relationship with their children has grown to be very positive and enjoyable. Others, have noticed the change only after they have sat down to record the behaviours and complete the behaviour rating scales. Repeated comments have been received concerning the benefits to be derived from focussing on the appropriate behaviour and ignoring the inappropriate ones.

Unfortunately, a number of mothers have not enjoyed success. However, continued after-care with these parents may be helpful. One must recall that parents were not pre-selected for this study. Problems varied in kind and intensity from family to family. The fact that such a high success rate was achieved at all speaks very highly of the potential of this programme.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

The purpose of this research was to investigate the generalization effects of a formal parent training programme. This programme is the "Directive Parental Counseling programme" (Holland, 1976).

In evaluating any type of treatment programme three major questions must be answered. First, information must be gathered to determine whether the programme succeeds in accomplishing the specific job for which it was designed. Second, additional effects of the treatment which are not specifically focussed upon must be investigated. Third, it must be determined whether this change is a temporary, short-lasting change or whether changes that occur have temporal generality.

Results of this investigation reveal that this programme is effective in reducing specific behaviours. This effectiveness is demonstrated using both parent recordings of problem behaviours, and behavioural rating scales. Thus, the programme appears to be successful in accomplishing the specific goal for which it was developed.

The question of "generalization" is a much more complex issue because of the variety of ways in which treatment effects can spread from one area or aspect to another. In this study we have observed behaviour change generality for both the target child and a sibling.

In regard to the reduction in the display of non-targeted problem behaviours as recorded by parents two possible confounding vari-

ables must be responded to. First, there has been much dispute about the accuracy of using parent recordings of problem behaviours. There appears to be little doubt that this is not the most effective way to record home behaviours. However, using independent observers, aside from being extremely time consuming and demanding of research resources, introduces a major source of distortion known as observer effects or reactivity. Research (Zegiob, Arnold, & Forehand, 1975; Zegiod & Forehand, 1978) has repeatedly indicated that "good parent" behaviours were maximized during observation. Thus, there is some question as to which of these procedures is more accurate. Future research will have to determine a more appropriate method of assessing behaviour change in the home.

Wahler (1975) refers to "functional clusters" as groups of behaviours that are identified by some common bond. Change in one behaviour may well effect changes in the other. In the present investigation parents were asked to choose three separate problem behaviours for recording purposes. However, it is possible that the three parent-selected problem behaviours may have been occasionally related to each other. It is a consideration therefore, that the behavioural generality displayed was partially attributable to change within these "functional clusters". An argument supporting behaviour generality can be made if we incorporate changes on the behaviour checklists completed by the parents. These checklists are separated into various subscales which have been demonstrated to be relatively independent of each other. The fact that change has occurred on a number of these independent scales

would therefore add support to the conclusion that behavioural generality did occur following the treatment programme. Setting generality was also demonstrated in that changes in the target child's school behaviour was very similar to home behaviour changes. Coupled with support for behaviour generality these latter types of generality provoke an interesting consideration. A number of researchers have recommended that generalization should be actively sought and planned, rather than awaiting it as an inadvertant consequence of treatment (Stokes & Baer, 1977; Wahler, 1969). Many previous studies have shown only minimal support for generalization effects. It may well be that these programmes focus too narrowly upon a specific problem.

Research on the effects of the DPC programme has consistently shown some signs of generalization effects. This evidence would indicate that the programme has a much broader scope than simply changing one target problem behaviour. It is possible that generalization is built right into the programme. In the present research it is believed that there were three major reasons for the generalization findings. The first reason relates to the programme itself. A specific problem behaviour was chosen by the parents to use in the programme. Principles of behaviour change were taught using the parent-chosen problem behaviour as a concrete example. This certainly helped parents understand the principles more clearly. In addition, parents were not only encouraged to ask questions about changing other behaviours but were spontaneously asked to apply the principles to behaviours which were chosen by the group leader. Thus the grounding they experienced

using self-chosen concrete examples, may have helped them to use the principles more readily with other problem behaviours.

The second reason for the generalization effects relates to the fact that all parents were seen in groups. Listening to other parents' problems and solutions would likely have aided many parents. In addition parents were directly asked to assist one another with advice using the behaviour modification principles. In a group, parents appeared to become comfortable with one another over the course of the programme and often initiated conversation relating to problems that they were experiencing with their spouse or other family members. It was not surprising to have mothers discuss ways they could use the behaviour change principles with their husband. Certainly, the group factor was an important aspect of the treatment programme for most parents.

Hyde (1975) states that parents spontaneously verbalized that the DPC programme helped them even more than it helped their children. It would appear that this type of belief might be still another explanation for finding generalization effects. Parents taking the DPC programme quickly became aware that their own actions and behaviours could exacerbate their child's problem behaviours. Thus one aspect of the programme focussed upon self change, by helping parents become aware of their influence on their children's behaviour and training them to alter their behaviours to become more effective parents. This focus upon self-change may well be a determining factor in treatment success. Future research might assess the ability for self-change

and compare it to treatment outcome.

Considering these three factors it may well be that generalization effects were not so much an inadvertent consequence of the programme but rather a reflection of the way the programme was designed and conducted. Future research might attempt to isolate these factors to empirically demonstrate their importance towards generalization of treatment effects.

Long term analysis of data (3 months post treatment) reveals that most of the changes that were noted immediately following treatment not only maintained themselves, but continued to change in the desired direction. This was noticed for both the target child and the sibling. Of all the findings this would appear to be the most important for it indicates that parents have not simply learned a temporary behaviour-changing technique, but rather that they have learned general behaviour change principles. These principles appear to have been incorporated into the parent's everyday behaviour judging by the temporal generality effects. However, this conclusion is an assumption based upon the change in the child's behaviour. It seems imperative that independent home observations (tape recording or unobtrusvie observer) be made of parent's behaviour to empirically assess whether change in the child's behaviour is a direct reflection of change in the parent's behaviour. In addition, it would be advantageous to re-administer attitudinal surveys on a long term basis to determine whether post-treatment attitudinal changes persist.

A number of additional questions are stimulated by these experi-

mental results in regard to future research. As previously mentioned, research findings are ambiguous in terms of deciding whether independent observers are more accurate in their assessment of behaviour change than are parents. Parent research using audio home recordings shows some promise and might be useful in eliminating some of the weaknesses of the aforementioned parent or independent observer recording practices.

Paper and pencil rating scales have often been used alone and as a supplement to other measures in this area of research. To date there appears to be no behaviour rating scale that has been extensively standardized on a large and diverse population. As behaviour-modification programmes are being used with children of all ages, it would seem imperative that such scales be designed for future research.

To date five studies have investigated the DPC programme. Results of this research reveal that the programme is effective in reducing problem behaviours. In addition, behavioural generality, sibling generality, setting generality and temporal generality have been noted following the implementation of the programme. Future research on this programme might well focus on additional aspects of the programme that could promote increased treatment effectiveness. Factors such as didactic delivery vs. discussion, roleplay and modelling, and experienced therapist versus inexperienced therapist, might well effect the outcome of this programme and should be investigated. Past attempts have been made to determine what characteristics separate successful mothers from unsuccessful mothers. Con-

tinued efforts in this regard are needed. Finally, long term follow-ups, one or more years after treatment would prove to be very useful in determining whether occasional refresher courses might maximize the benefits of this programme.

APPENDICES

APPENDIX A

MISSOURI CHILDREN'S BEHAVIOUR CHECKLIST

Missouri Children's Behaviour Checklist

Please indicate on the checklist (by circling a "yes" or "no") whether or not your child has shown the behaviour described in each of the statements during the previous month.

1. Says as for instance, "I'll get even," You won't get away with that," "I'll show him," expressed desire for revenge	yes	no
2. Does not answer when spoken to, pouts, looks mean or sullen	yes	no
3. Sleeps well, awakes very few times at night (a "good sleeper")	yes	no
4. Tosses and turns in sleep, rolls, gets up often at night, etc. (poor or restless sleeping)	yes	no
5. Does not perform before group, refuses to speak before class when requested, does not volunteer to speak or act before group or class	yes	no
6. Does not participate in group activities, stays in background (said to be retiring)	yes	no
7. Destroys or defaces property	yes	no
8. Selfish	yes	no
9. Clings to mother (stays close to mother, hangs onto dress or hand)	yes	no
10. Has physical complaints	yes	no
11. Moves constantly, "gets into everything," "swarms all over," is overactive	yes	no
12. Swears or curses (uses "Hell," "God damn" or other four-letter words	yes	no
13. Unscrupulously takes advantage of others	yes	no
14. Hurts animals	yes	no
15. Does not try new situations, "hangs back," is considered by others as fearful or shy	yes	no

16.	Complains of pains in head	yes	no
17.	Expresses delight over the happiness of others (e.g., claps hands, says "that's good!")	yes	no
18.	Requests praise or approval	yes	no
19.	Expresses delight in beauty	yes	no
20.	Over-talkative, chatters, keeps talking or interrupting conversation	yes	no
21.	Walks in sleep	yes	no
22.	Screams more than others	yes	no
23.	Fights	yes	no
24.	Has difficulty going to sleep	yes	no
25.	Cries at separation from mother (on going to school, camp, etc.)	yes	no
26.	Discusses own problems with others	yes	no
27.	Is said to be distractable, turns away quickly from what he is doing when something else moves, when someone speaks, or other sounds are made	yes	no
28.	Pulls other children's hair, punches, steps on toes, etc., annoys children	yes	no
29.	Speaks with weak voice, in a monotone, voice "trails off" at ends of sentences, or speaks in a weak, high-pitched voice	yes	no
30.	Vomits when things "do not go his way," when he shows signs of anger (red face, raised voice, etc.), when he says he is worried, or when he feels sad or is emotionally upset	yes	no
31.	Talks easily with adults, initiates activities or conversation with adults other than parents	yes	no
32.	Sings or hums continually (to the expressed annoyance of others)	yes	no

33. Becomes so upset by changes in routine such as changing residence or schools or when expecting visitors that the child may vomit or report bodily aches, headaches, stomach aches, or feelings of nausea — yes no

34. Says "Others are to blame" for own actions — yes no

35. Worries a great deal, is said to be a worrier, expresses worry or concern about bad grades, health, etc. — yes no

36. Cries easily — yes no

37. Stumbles, falls easily, throws clumsily, is awkward — yes no

38. Speaks rapidly, words "come tumbling out fast" — yes no

39. Expresses or shows concern over the misfortunes of others (e.g., pats shoulder, asks questions about troubles, says "you feel unhappy, don't you?") — yes no

40. Becomes "jittery," building up tension, becomes wound up — yes no

41. Is apathetic or underactive — yes no

42. Makes statements contrary to fact (lying, telling untruths) — yes no

43. Complains of pains in limbs or back (muscle aches and pains) — yes no

44. Says "I'm sorry," "Won't you forgive me?" more than others do (expresses great remorse, apologizes repeatedly, cries after hurting or telling untruths or destroying property) — yes no

45. Sought out by others, others say they like him; among first selected for teams, etc. — yes no

46. Falls, cuts, bruises, injures self, has many accidents — yes no

47. Becomes more active or more talkative in groups, becomes noisier and more excited than usual when he is in a group — yes no

48.	Teases other children	yes	no
49.	Screams, bangs objects when denied something, has temper tantrums	yes	no
50.	Irregular bed time	yes	no
51.	Expresses appreciation for others' acts	yes	no
52.	Withdraws, remains quiet, does not talk back when others shove, hit, accuse, or criticize him (does not "stand up for self")	yes	no
53.	Talks in sleep	yes	no
54.	Hurts other children (pinches, hits, kicks or other destructive acts)	yes	no
55.	Talks about or complains of nightmares about past serious events (divorce, automobile accident, fire, loss of loved one, or other "crisis" events)	yes	no
56.	Asks to be held or hugged, climbs into lap, etc. (seeks physical expressions of affection)	yes	no
57.	Steals	yes	no
58.	Says "I'm tired," "I want to rest," etc. (others say that he tires easily or rests often)	yes	no
59.	Complains of bad dreams	yes	no
60.	Has few close friendships	yes	no
61.	Stays largely in room or house	yes	no
62.	Hits smaller children, "picks on" weaker or smaller children	yes	no
63.	Cries out in sleep	yes	no
64.	Jumps from one activity to next, does not finish task (others say he has a short attention span)	yes	no
65.	Is shy or timid	yes	no
66.	Threatens to kill someone	yes	no

67. Is sensitive yes no

68. Prefers to be with children younger than himself yes no

69. Plays with matches yes no

70. Is seclusive, prefers to be by himself yes no

APPENDIX B

HEREFORD PARENT-ATTITUDE SURVEY

Hereford Parent-Attitude Survey

Instructions

On the following pages are a number of statements regarding parents and children. Please indicate your agreement or disagreement with each statement in the following manner:

Strongly agree	-----cross out letter "A" on answer sheet
Agree	-----cross out letter "a" on answer sheet
Undecided	-----cross out letter "u" on answer sheet
Disagree	-----cross out letter "d" on answer sheet
Strongly Disagree	-----cross out letter "D" on answer sheet

For example: if you strongl agree with the following statement, you would marke it in this way:

Boys are more active than girls. A a u d D

All your answers are to be marked on the green answer sheet. As you turn each page, the next column of answers will appear. Please do not write on this page or on the statements.

This survey is concerned only with the attitudes and opinions that parents have; there are no "right" or "wrong" answers. Work just as rapidly as you can--it is your first impression that we are interested in. There is no time limit.

REMEMBER.....A = Strongly Agree
a = Agree
u = Undecided
d = Disagree
D = Strongly Disagree

Please go ahead.....

1. Parents have to sacrifice everything for their children A a u d D

2. Parents should help children feel they belong and are needed A a u d D

3. Taking care of a small baby is something that no woman should be expected to do all by herself A a u d D

4. When you come right down to it, a child is either good or bad and there's not much you can do about it — A a u d D

5. The earlier a child is weaned from its emotional ties to its parents the better it will handle its own problems — A a u d D

6. Most of the time giving advice to children is a waste of time because they either don't take it or don't need it — A a u d D

7. It is hard to let children go and visit people because they might misbehave when parents aren't around — A a u d D

8. Fewer people are doing a good job of child-rearing now than 30 years ago — A a u d D

9. With all a child hears at school and from friends, there's little a parent can do to influence him — A a u d D

10. If a little girl is a tomboy, her mother should try to get her interested in dolls and playing house — A a u d D

11. A child has a right to his own point of view and ought to be allowed to express it, just as parents express theirs — A a u d D

12. If children are quiet for awhile you should immediately find out why — A a u d D

13. It's a rare parent who can be even-tempered with the children all day — A a u d D

14. Psychologists now know that what a child is born with determines the kind of person he becomes — A a u d D

15. One reason that it is sad to see children grow up is because they need you more when they are babies — A a u d D

16. The trouble with trying to understand children's problems is they usually just make up a lot of stories to keep you interested — A a u d D

17. A mother has a right to know everything going on in her child's life because her child is part of her — A a u d D

18. Most parents aren't sure what is the best way to bring up children — A a u d D

19. A child may learn to be a juvenile delinquent from playing games like cops and robbers and war too much — A a u d D

20. There is no reason why a child should not learn to keep his clothes clean very early in life — A a u d D

21. If a parent sees that a child is right and the parent is wrong, they should admit it and try to do something about it — A a u d D

22. A child should be allowed to try out what it can do and how to do it or they will make mistakes — A a u d D

23. It's hard to know what to do when a child is afraid of something that won't hurt him — A a u d D

24. Most all children are just the same at birth; it's what happens to them afterwards that is important — A a u d D

25. Playing with a baby too much should be avoided since it excites them and they won't sleep — A a u d D

26. Children shouldn't be asked to do all the compromising without a chance to express their side of things — A a u d D

27. Parents should make it their business to know everything their children are thinking — A a u d D

28. Raising children isn't as hard as most parents let on — A a u d D

29. There are many things that influence a young child that parents don't understand and can't do anything about — A a u d D

30. A child who wants too much affection may become a "softie" if it is given to him — A a u d D

31. Family life would be happier if parents made children feel they were free to say what they think about anything — A a u d D

32. Children must be told exactly what to do and how to do it or they will make mistakes — A a u d D

33. Parents sacrifice most of their fun for their children — A a u d D

34. Many times parents are punished for their own sins through the bad behaviour of their children — A a u d D

35. If you put too many restrictions on a child, you will stunt his personality — A a u d D

36. Most children's fears are so unreasonable it only makes things worse to let the child talk about them — A a u d D

37. It is hard to know when to let boys and girls play together when they can't be seen — A a u d D

38. I feel I am faced with more problems than most parents — A a u d D

39. Most of the bad traits children have (like nervousness or bad temper) are inherited — A a u d D

40. A child who misbehaves should be made to feel guilty and ashamed of himself — A a u d D

41. Family conferences which include the children don't usually accomplish much — A a u d D

42. It's a parent's duty to make sure he knows a child's innermost thoughts — A a u d D

43. It's hard to know whether to be playful rather than dignified with children — A a u d D

44. A child that comes from bad stock doesn't have much chance of amounting to anything — A a u d D

45. A child should be weaned away from the bottle or breast as soon as possible — A a u d D

46. There's a lot of truth in the saying, "Children should be seen and not heard" A a u d D

47. If rules are not closely enforced children will misbehave and get into trouble A a u d D

48. Children don't realize that it mainly takes suffering to be a good parent A a u d D

49. Some children are so naturally headstrong that a parent can't really do much about them A a u d D

50. One think I cannot stand is a child's constantly wanting to be held A a u d D

51. A child's ideas should be seriously considered in making family decisions A a u d D

52. More parents should make it their job to know everything their child is doing A a u d D

53. Few parents have to face the problems I find with my children A a u d D

54. Why children behave the way they do it too much for anyone to figure out A a u d D

55. When a boy is cowardly, he should be forced to try things he is afraid of A a u d D

56. If you let children talk about their troubles they end up complaining even more A a u d D

57. An alert parent should try to learn all his child's thoughts A a u d D

58. It's hard to know when to make a rule and stick by it A a u d D

59. Not even psychologists understand exactly why children act the way they do A a u d D

60. Children should be toilet-trained at the earliest possible time A a u d D

61. A child should always accept the decision of his parents A a u d D

62.	Children have a right to activities which do not include their parents	A a u d D
63.	A parent has to suffer much and say little	A a u d D
64.	If a child is born bad there's not much you can do about it	A a u d D
65.	There's no acceptable excuse for a child hitting another child	A a u d D
66.	Children should have a share in making family decisions just as the grown-ups do	A a u d D
67.	Children who are not watched will get in trouble	A a u d D
68.	It's hard to know when to make a rule and stick by it	A a u d D
69.	A child is destined to be a certain kind of person no matter what the parents do	A a u d D
70.	It's a parent's right to refuse to put up with a child's annoyances	A a u d D
71.	Talking with a child about his fears most often makes the fear look more important than it is	A a u d D
72.	Children have no right to keep anything from their parents	A a u d D
73.	Raising children is a nerve-wracking job	A a u d D
74.	Some children are just naturally bad	A a u d D
75.	A child should be taught to avoid fighting no matter what happens	A a u d D
76.	Children don't try to understand their parents	A a u d D
77.	A child should never keep a secret from his parents	A a u d D

APPENDIX C

MARITAL ATTITUDE EVALUATION SCALE

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