TRAINING PARENTS TO MANAGE DIFFICULT

CHILDREN: A COMPARISON OF METHODS

Carole Sutton, B.A., M.Sc.

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ABSTRACT

This study examined the efficacy of training parents
in skills of child management. The parents had all sought
help in coping with their pre-school children, and under-
stood that training would be based upon social learning/
behavioural principles.

A pilot study, which compared the progress of five
children visited at home and six whose parents were in
weekly telephone contact with the author, gave encouraging
results. Thirty seven children, six girls and thirty one
boys, were then randomly allocated to one of four methods of
training: group, home visit, telephone or waiting list/
delayed intervention control. Participants in the three
active intervention conditions were assessed pre- and post-
intervention. Participants in the waiting list/delayed
intervention condition were assessed before and after an
eight-weeks waiting period; they were then randomly
reallocated to one of the three active intervention methods.
Seven children were lost during the study, leaving thirty.

Results indicated clinical improvement for all three
active intervention conditions compared to the waiting list
control condition. There were no significant differences
between any of the three active intervention methods,
either at post-intervention or at twelve to eighteen
months follow-up. The results are discussed in terms of
their theoretical and practical implications.

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Chapter 1

Introduction

The roots of this study lie in my own experience. My concern for the parents of very active children stems from the feelings and memories which I have concerning my own first child when she herself was aged two, three and four, from the notes which I made at the time.

Catherine was a lively, out-going child from the start. She had a normal birth, adapted easily to the sea and rail journey to India when about fifteen months, but did not adapt readily to the birth of her sister shortly afterwards. A note at that time read:

> 2 years, 3 months
>
> Awful to-do when I took her down to the store for a walk and she demanded to be carried back... Despite umpteen on-lookers, all thinking me cruel mother, I held firm and after letting her lie, screaming on the path for a little, conscious of bystanders' sympathy, I eventually frog-marched her back to the house, almost more upset than she.

This situation was compounded by realising that, having recently completed, in 1960, a social work qualification at the London School of Economics, I was 'qualified' not only to cope with my own daughter, but to advise other parents upon how to manage similar difficulties in their children. I

felt very inadequate. My training at the L.S.E. had been

exclusively within a psychoanalytic framework, and it was

naturally within this that I understood my child's behaviour.

After a period of nearly two years in India, marked by

by entries such as, at two years four months,

She plagues Choti [new baby], pushes her down when

she sits up and has today bitten her again ...

and, at three years one month,

jealous even of Choti's having an extra injection.

On our return to the U.K., I recorded:

Three years, seven months

Oh dear, so soon after emerging from the exhausting

two year old period, we're now bang into the Oedipal

situation - or so it seems: she can be charming for

hours on end, and then, usually with me, something

will prove frustrating to her and we have screams

and banging with her feet for up to 15 minutes on end.

I have tried holding her.... but this doesn't seem

to help, and she usually cries it out and then comes

begging for a 'cuggle'.

Things continued to be very stressful:

4 years 5 months

Oh dear, we're back where we were 6 months ago. Shouting

and fussing over what she shall wear, what she shall

do, when she shall do it. The slightest mark of recog-

nition of Choti brings tantrums and screams, and I have

been utterly furious and frustrated by it all.....

We got through somehow: most families do. Yet it was a very stressful time, and Catherine always had to be handled in a way which guarded against the likelihood of a scene ...

When the two children were old enough to go to school and playgroup respectively, I resumed morning work at the Child Guidance clinic, and soon encountered parents experiencing behaviour difficulties with their children very like my own - and worse: children who would not sleep at night, children who could never be taken out, children who could never be left with another child for fear of the attacks which occurred. I had no theoretical framework with which to help these parents with management problems, other than a smattering of Freud. His ideas helped them no more than they had helped me.

It was not until several years later when I found myself studying for a psychology degree with a tutor who happened to be a clinical psychologist that things began to fall into place. After finding behavioural principles extremely unacceptable at first, and productive of much conflict with my existing framework of understanding, it was the _effects_ of trying out the ideas with my own children, and with the parents who sought help which persuaded me of their validity. At last there was a body of theory by which to _work_, theory which was very practical, based upon common sense principles and with a strong empirical base.

There are thus several reasons for selecting this field as one to research. I know from first hand something of the stress and sense of inadequacy which arise from living with very active and demanding children; I have worked with mothers who are frantic for help, and who fear that their anger and frustration may lead to their attacking the child, and I know from the research literature that help can be given.

There is increasing concern about the number of children who are perceived to be extremely difficult to manage, or who are unmanageable. I myself was extremely fortunate in receiving, quite by chance, an introduction to principles which I could try out in practical ways, and which I found extremely effective. Others are not so lucky.

A survey in 156 infant, first and primary schools by the Association of Assistant Masters and Mistresses was reported by Berliner (1984), who noted,

> that many teachers in reception classes ...... have detected a marked deterioration in standards of behaviour over the past five years.

> Teachers are often told by parents that they cannot handle the child at home. The teachers find that the child insists on having its own way, and uses such techniques as temper tantrums, obscenities and aggression towards other pupils in an attempt to get it.

> Such behaviour is seen as more typical of the two and three-year-old, but an increasing number of pupils aged five appear not to have 'grown up' ....

As I write, I have before me a letter which I received
only yesterday from the the secretary of the organisation,
Parents Anonymous, Leicester; one paragraph reads:

The other thing I wanted to ask you was if you are

still doing your behaviour modification programme?

On various occasions and not only through P.A. I have

been asked for information and help for mothers who

are finding managing their under-fives increasingly

worrying and difficult. I have run out of the forms

you gave me ..... and would certainly welcome more

and any further help you might have to give me.

Parents do seem to be in need of help; while there is no
evidence concerning the actual extent of the problem of
unmanageable young children, there seems to be an increasing
number of people aware of it, and parents are actively seeking
help.

Since, as I shall argue, there is a strong body of evidence
suggesting that many parents can be taught to manage their
children's unmanageable behaviour, it is a matter of clear
urgency to develop a service, easily available, and readily
applicable, to support and help them.

The body of evidence indicating which particular methods
of training are effective, in terms of short and long term
outcomes, and how such a service may be most helpfully offered
to parents, is however, scant indeed. It is to this area that
the research which I shall describe below addressed itself.

SECTION 1   LITERATURE REVIEW

Chapter 2

Attempts to distinguish children's behaviour difficulties

1   Classifying, diagnosing or individualised assessment

The study of children's disordered behaviour calls for a system of classification.   The attempt to group findings so that common features may be distinguished is a characteristic of any scientific endeavour (Darwin, 1882);   so it is with the study of children's disordered behaviour.

Those attempting to classify such disorders, however, immediately experience difficulties not encountered by those in the 'classical' fields of scientific activity;   the latter, for the most part, attempt to seek some order among naturally existing phenomena: the former are inevitably more preoccupied with questions of value and of 'normality' and 'abnormality'.

The task of classification is made the more difficult since many researchers in this field, (Achenbach, 1974; Herbert, 1974) consider that abnormal behaviour in children is not essentially different from normal behaviour. That is, they suggest that much abnormal behaviour is acquired in the same way as normal behaviour, and that it is 'abnormal' because it is an excess or a deficit of that usually seen as 'normal'. 'Abnormality' may thus be primarily a matter of degree.   In attempting to draw a dividing line between the normal and abnormal, elements of subjectivity inevitably enter the judgment - an undesirable state of affairs to the scientist.

There appear to be three different levels of activity
when attempting to understand and respond to the requests
for help of the parents of children with behaviour diffi-
culties: the level of classifying the behaviours of large
numbers of children, in terms of commonalities across the
behaviours; the level of diagnosing an individual child's
behaviour, which is likely to be informed by the classific-
ation; and the level of working with, or 'treating' a given
individual child. Let us consider each in turn.

1.1 Classifying the behaviours of large numbers of children

This has heuristic value. Research, such as factor-
analytic studies, can help by distinguishing common features
or sequences in the behaviours of difficult children, and this
in turn can inform clinical judgment.

Criteria for an adequate classification of children's
disorders have been proposed by Rutter and Gould (1985):
first, the classification must be based upon facts, not
concepts, and it must be defined in operational terms; second,
the aim is to classify disorders, not children; third, there
should not be different classifications for different age
periods; fourth, the classification must be reliable; fifth,
it must provide adequate differentiation between disorders;
sixth, important disorders must not be omitted; seventh,
the differentiations should have validity; eighth, there
should be logical consistency; ninth, the classification must
convey information relevant to the clinical condition; and
tenth, the classification must be of value in ordinary practice.

1.2 Emerging systems of classification

Traditional frameworks for categorising children's disorders have led to the emergence of a number of systems of classification. There are currently three main ones: the International Classification of Diseases, Ninth Revision (I.C.D.9) (1977), published in Geneva by the World Health Organization; the Diagnostic and Statistical Manual of Mental Disorders, (D.S.M. III) (1980), of the American Psychiatric Association; and that developed by Rutter and colleagues (1975) for the World Health Organization.

How did such systems of classification develop? Historically, the various diagnostic categories arose from the individual judgments of clinicians on a day-to-day basis (Quay and Werry, 1979); such judgments inevitably gave rise to somewhat diverse diagnostic groupings. Over time, however, far more systematic procedures for the allocation of disorders to diagnostic categories have become available: notably factor-analytic approaches and clinical studies.

Among the earliest of the multi-variate analyses was that of Hewitt and Jenkins (1946) who analysed the case records of 500 children referred to a Chicago child-guidance clinic, and by visual inspection, noted intercorrelations among behaviour traits. Three primary syndromes were identified: the unsocialized-aggressive, the socialized delinquent and the over-inhibited. It was however not possible to classify over 300 of the sample.

Another milestone in multivariate analysis was the work of Peterson (1961) who improved upon Hewitt and Jenkins's methodology by paying particular attention to sampling. By working with 400 <u>representatively selected</u> records of children he extracted 58 items of deviant behaviour; teachers of 831 children then used these 58 items to rate the behaviours of the children in their charge. The results showed that the inter-relations among the 58 items indicated two independent clusters: Peterson called these 'conduct problems' and 'personality problems' - though they could also be seen as the two end points of a continuum between aggression and withdrawal. Such a formulation adds strength to the view of Herbert (1978) and others that the main difference between 'normal' and 'abnormal' behaviour is one of degree.

Other researchers such as Pimm, Quay and Werry (1967) have endorsed, via multivariate statistical analyses, a variable variously known as 'conduct problem', or 'conduct disorder'. Rutter and Gould (1985) have noted that some researchers have distinguished 'unsocialized aggressive behaviour' and 'unsocialized group delinquency', but there is not the same level of consensus upon this as upon the phenomena of the 'conduct disorder' and the 'emotional disorder' - as they are increasingly being called.

Confirmatory evidence of the usefulness of distinguishing these disorders has been offered by those engaged in clinical research in a variety of settings. This bi-polar dimension of conduct disorder/emotional disorder, or as Herbert (1978) describes it, excess approach behaviour (aggression) and excess avoidance behaviour (withdrawal), has been found in clinical studies in a variety of settings and institutions. It emerged from the studies of Conners (1970) in a classroom setting, and from the studies of Robins (1972), who followed up 542 children seen at a St. Louis child guidance clinic.

There seems then to be a convergence of evidence that two diagnostic categories, conduct disorders and personality or emotional disorders should figure in any classification of children's behaviour difficulties. Before examining them further, it is appropriate to consider briefly some other groupings which have come to be included.

Both the I.C.D.9 and the W.H.O. formulation include a third diagnostic category, the 'hyperkinetic syndrome' or 'hyperactivity'. This typically refers to a cluster of behaviours such as overactivity, distractibility and short attention span: (Herbert, 1978; Barkley, 1981; Taylor, 1985). There are also indications from Schachar, Rutter and Smith (1981) that such children make poor personal relationships. The D.S.M.-III, as will be discussed below, includes instead the category of Attention Deficit Disorder, one form of which is associated with hyperactivity, and one form of which is not.

The three classificatory systems are not identical in other respects. While all include conduct disorder and personality/emotional disorder, with a larger or smaller number of sub-categories, there is divergence as to whether hyperactivity is distinguishable from conduct disorder. (Quay and Werry, 1979; Taylor, 1985). This will be discussed below.

The I.C.D.9 provides for five further categories (excluding psychosis) of disorder pertaining to children and young people. There are nine neurotic disorders, (common to children and adults), eight special syndromes and nine adjustment reactions. Further categories in the D.S.M.-III include five disorders to do with eating, four with movement disorders, such as tics, and ten developmental disorders.

There are, however, increasing moves towards multiaxial classifications, in order to accommodate a greater number of variables. One which is receiving increasing attention was tested in a study by Rutter and al (1975), having five axes:

1 Clinical psychiatric syndrome (emotional disorder, conduct disorder, etc.)

2 Specific delay in development (developmental speech disorder, reading retardation, etc.)

3 Intellectual level

4 Medical condition

5 Abnormal psychosocial situation (family discord, etc)

The diagnostic groupings and the associated variables are shown in Table 2.1.

DIAGNOSTIC GROUPS	Variables						
	Age of onset	Sex	Reading difficulties	Organic brain dysfunction	Family discord	Response to treatment	Adult state (if impaired)
EMOTIONAL	any	−	−	±	−	++++	neurosis/depression
CONDUCT	any	male	++	±	++	+	delinquency/personality disorder
HYPERKINETIC	<5 years	male	+++	+	+	+	personality disorder/ psychosis
AUTISM	<2½ years	male	+++	++	−	+	language and social impairment
SCHIZOPHRENIA	>7 years	−	+	±	±	+	relapsing or chronic psychosis
DEVELOPMENTAL	infancy	male	+++	+	−	++	educational difficulties

Table 2.1 **Variables differentiating diagnostic categories (Rutter, 1975)**

2 Diagnosing an individual child's behaviour disorder

The diagnosis of a given child's behaviour difficulty is likely then to be informed by the clinician's knowledge of such classifications as that shown above, or the multiaxial classification (Rutter et al, 1975) described earlier.

Making a diagnosis involves the integration of a number of areas of knowledge or skill: first, the ability to make a precise description of the difficulty at issue; second, a sound understanding of the aetiology of the difficulty; third, a knowledge of the treatment strategy to recommend, and fourth, some confidence concerning prognosis. Where the clinician has these all these capacities, then the 'making of a diagnosis' is likely to be of value - and indeed people in situations which they do not understand and cannot control are likely actively to seek a diagnosis or a 'label' for their difficulty.

The making of a diagnosis, or the giving of a 'label'
carries, however, its own hazards. It implies a degree of
uniformity across diagnoses which can be very misleading:
the patterns of behaviour of one child with a 'conduct
disorder' are likely to be very different from those of
another child; and a diagnosis attaches to a child a label
which it may be difficult to shake off, and whose connotations
may follow him or her throughout life. Thus the making of a
diagnosis, while possibly giving some reassurance to parents,
by conveying that their child's difficulities have been
recognised and named, is likely to be of only limited value.

3   Individualised assessment of children's disorders

It has been argued by Kanfer and Saslow (1969) that a
far more finely-tuned approach to helping in such circum-
stances as children's behaviour difficulties, is the making
of a functional analysis of the situation. Such an assessment
is likely to involve a far more precise examination of, for
example, the specific settings in which the difficulties occur,
with whom it occurs, and when it occurs.

This approach may be contrasted in terms of its subtlety
with the 'blanket' approach of making a diagnosis. It allows
for the setting up of hypotheses concerning the difficulties,
and the systematic testing of each one. While demanding of
professional time, and exacting in terms of developing strat-
egies of intervention, this approach is likely to be far more
sensitive to individual circumstances. It is explored further
in Chapter 7, as it relates to conduct disorders; to this
field of conduct disorders let us now explicitly turn.

4 The nature of conduct disorders

As described in the first chapter, it was the field of
behaviour disorders and the extent of the distress caused by
them which took the author's attention. In devising the study
the author thus focussed upon childen who fell, while acknow-
ledging the dangers of over-simplification, into the diagnostic
groups of conduct disorders and hyperkinetic/hyperactive dis-
orders in Table 2.1.   In the publicity concerning the service
to be offered, which was throughout described as a research
study, she invited applications from parents of children who
were 'difficult to manage' or 'hard to handle'. It is thus
the literature concerning conduct disorders and hyperactivity
which will be examined below.

It is extremely difficult to give a clear definition of
conduct disorders, particularly one which is appropriate to
both the behaviour of younger and older children. Rutter
(1975) suggested simply that conduct disorders are conditions
'in which the main problem lies in socially disapproved
behaviour'; and when examining the potential for overlap
between conduct disorders and delinquency, he saw them as
including difficulties in getting on with other children, as
shown by fighting and bullying, by other non-delinquent
activities such as aggression, defiance, and destructiveness,
and, potentially, delinquent activities.

Herbert (1978) endorsed the general features of conduct
disorders in suggesting, in a way which applies helpfully to
young children, that they include disruptiveness, temper-
tantrums, attention-seeking and destructiveness.

Such statements are underpinned by empirical research.
Epidemiological studies are of particular interest and value.
As early as 1931 Goodenough analysed records of incidents of
anger and angry outbursts on the part of 45 children aged
1 to 7 years whose mothers kept diaries of their behaviours
for 4 months. Over 1,800 incidents were recorded, and
Goodenough grouped the behaviours as paraphrased below:

1 Undirected energy or emotional outlet: screaming,
    breath-holding, kicking in a random way.

2 Physical or verbal resistance: non-compliance
    with what was asked: verbal or physical refusal.

3 Retaliation: physical or verbal revenge, such
    as biting or verbal abuse.

Goodenough noted a peak age for outbursts at 18 months,
with both boys and girls showing equal intensities. Thereafter
the overall frequencies diminished, but with an increase in
retaliatory behaviour. Boys consistently showed higher rates
of angry outbursts than girls.

Dawe (1934) studied the quarrels of 40 pre-school
children, boys and girls aged 2-5, during a free-play period.
She found that quarrels were brief, usually less than half a
minute; that boys quarrelled more frequently and more
aggressively than girls; that most quarrels started by
competition for possessions; that older children used more
physical aggression than younger ones; and most quarrels
were settled by one child's giving way to another.

Later studies, e.g. Yarrow, Campbell and Burton (1968)
also noted the frequency of angry outbursts, hitting,
screaming, fighting, and biting as day-to-day occurrences on
the part of ordinary young children, both boys and girls.
Other epidemiological evidence, e.g. the studies of Richman,
Stevenson and Graham (1982) concerning the pervasiveness of
difficult behaviour in pre-school children, will be examined
further in later chapters.

A question of particular interest, also to be examined
further below, is why in some children such patterns persist
and become perceived as 'conduct disorders', and why in others
they resolve into more socially acceptable modes of behaviour.
There is a far-from-clear research literature pertaining to
the field of conduct disorders among young children, partly
because of the undifferentiated nature of what is 'normal' or
'abnormal' at this stage, and because of the common assumption
that difficult behaviours are transient - that, in effect, a
child displaying such behaviours will 'grow out of' them.

It is still not known whether parents experiencing
behaviour difficulties in their young children do seek help,
or from whom they seek help. It seems likely that some do
not as they believe that things will spontaneously improve,
and that others do seek help from G.P.s, health visitors
or social workers; it is also not known how far such parents
feel they obtain the kind of help they are looking for.

4 The nature of hyperactivity

By contrast, the third of the diagnostic categories shown in Figure 2.1, hyperactivity, seems to have been far more rigorously researched and extensively reported. Unresolved debate still continues upon several issues. There does seem to be a consensus (Taylor, 1985) that the term 'hyperactivity' is a shorthand expression for a cluster of complaints about children's behaviour, including restlessness, impulsiveness and overactivity, but beyond this minimal concensus there is little common ground.

There appear to be at least two main areas of disagreement; one concerns the extent to which hyperactivity is distinguishable from conduct disorders, and the other concerns its relationship with attention-deficit disorder. These two issues will be considered briefly below.

4.1 Hyperactivity as an independent syndrome

This topic has commanded considerable research. Taylor (1985), in his major review, reported that hyperactivity emerged as a factor distinct from aggression when the scale devised by Conners (1969) was used with representative samples of school-children in New Zealand (Werry and Hawthorne, 1976); in the United States (Werry, Sprague and Cohen, 1975; Trites and Laprade, 1983) and in England (Taylor and Sandberg, 1984). These studies distinguished hyperactivity from aggression and anti-social conduct disorder, but did not make as clear a distinction between hyperactivity and inattentiveness.

This broad support for distinguishing a separate category, hyperactivity, from general conduct disorder, has however been strongly criticised by Quay (1979). He has argued, on the basis of his extensive review, that the great majority of deviant behaviours may be grouped in four main categories:

1 Conduct disorder

2 Anxiety - withdrawal

3 Immaturity

4 Socialised aggression

Quay would group hyperactivity and inattentiveness within the categories of conduct disorder and immaturity. He noted no less than ten studies (e.g., Langhorne, Loney, Paternite and Bechtoldt, 1976) which failed to distinguish hyperactivity as separate from conduct disorder, and concluded that the evidence for a separate syndrome was dubious.

Taylor (1985), while noting such arguments as that of Quay, concluded that a finer distinction may be helpful. Where a child's restless overactivity and impulsiveness are shown in one situation only, assessment should be directed as much to the situation as to the child. He concurred, however, that when such overactivity occurs in multiple settings it is also frequently associated with aggressive and anti-social behaviour (Taylor, 1984); it is this sustained overactivity which can be classified as part of conduct disorder.

There appears then to be an increasing concensus upon the areas of overlap between hyperactivity and conduct disorders: these will be summarised at the end of the chapter.

4.2 Hyperactivity and 'attention deficit disorder'

This is a further major topic commanding considerable research, and one which is the subject of continuing debate. The D.S.M.-III contains a discrete category of disorders, Attention Deficit Disorder, sub-divided into a type with hyperactivity (A.D.D.H.), another type without hyperactivity and a residual type. In this formulation hyperactivity is the subordinate construct. In the I.C.D.9, the formulation is the other way round: hyperactivity is superordinate, with attention-level, impulsiveness and other characteristics subordinate.

A recent paper of considerable interest, by Prior and Sanson (1986) has strongly criticised the D.S.M.-III formulation. In particular they question the over-ready acceptance of the concept of 'attention-deficit', asking, appropriately, whether by 'attention' is meant concentration, search, set, selective attention, activation or vigilance? They highlight the evidence that many children diagnosed as hyperactive do, in certain circumstances, sustain attention for considerable periods of time, such as when watching favourite television programmes. (Sleator and Ullman, 1981).

They call for greater specificity of language, and consider that there are grounds for further investigation of the hypothesis of Torgeson (1977) who suggested that the poor performance of such children may be due to a deficit of application, rather than attention.

A further argument against the reification of 'attention deficit disorder' and against the very concept of A.D.D.H. is that attention deficits are found among children diagnosed as autistic, as having learning difficulties, and as having developmental difficulties. Prior and Sanson argue that a characteristic found among so many disorders cannot be elevated to an exclusive position on occasions when it is associated with hyperactivity.

Finally, as Prior and Sanson point out, if A.D.D.H. were a discrete syndrome, it should be reponsive to a specific treatment, or range of treatments - and this does not appear to be the case. They conclude that the delineation of the syndrome of A.D.D.H. has 'not led to the hoped-for advance in differential diagnosis of a troubling childhood disorder'.

They argue for the abandoning of the notion of a discrete disorder of A.D.D.H. and for the whole group of difficulties to be subsumed once again under conduct disorders. This at least would avoid the dangers of 'labelling' which were referred to at the beginning of this chapter.

5   Signs of an emerging concensus within the U.K

While the debates concerning classification are far from being resolved in the international arena, which is where, ultimately, they are needed, there are some indications that areas of agreement are being clarified within the U.K. (Taylor, 1985; Herbert 1986).

These areas of agreement appear to be:

1   That all forms of inquiry, including both factor-analytic
and clinical studies, point to a marked degree of overlap
between conduct disorders and hyperactivity - of the order
of 80% (Taylor, 1985).

2   Many children with features of hyperactivity also show
poor ability to sustain attention - although this expression
has itself not been adequately defined in operational terms.

3   While broad classifications, and general diagnoses, clearly
have their uses, they are typically too general to offer the
detailed information required for intervention. A more useful
way of dealing with conduct disorders and hyperactivity seems
to be through a functional analysis of the behaviour of
individual children in individual situations.

6   Summary

The classifications of children's behaviour disorders are
not in agreement one with another, and the place of hyperac-
tivity as a syndrome distinct or not from conduct disorder is
unresolved. As research continues, there are however signs
of an emerging concensus, which suggests major areas of over-
lap between the two. This also suggests that individualised
means of assessment, via a functional analysis, followed by
individually tailored strategies of intervention, may be the
most effective means of helping families in difficulties.

Chapter 3

Prevalence of and continuities in conduct disorders and

hyperactive behaviours

1   Prevalence, in the U.K. and the U.S.A.

There is a relative shortage of reliable data concerning

the prevalence of conduct disorders and hyperactive behaviour

among pre-school children. This is at least partly because of

the difficulties, already described, of distinguishing

between, describing and specifying the two conditions.

There are startling disparities between the prevalences

reported in the United Kingdom and in America; this seems to

arise largely from each country using different sets of

criteria for making the diagnosis. Thus in the Isle of Wight

population study of 2199 children aged 10 and 11, only 2

children were diagnosed as hyperactive (Rutter et al, 1976),

by contrast with studies in the United States which have

assigned this diagnosis to between 5 and 20% of all the

children surveyed (Miller et al, 1973; Education Committee of

the California State Senate, 1974).

Concerning conduct disorders, Herbert (1978), drawing upon

sources such as Wiltz and Patterson (1974), reported that about

one third of the referrals made by parents and teachers in

general involved conduct problems. These figures do not

discriminate between school and pre-school children, and

hyperactivity was not distinguished as characterising

a discrete group of children.

Studies offering more precise data, though upon small samples, are beginning to be available. Thus Richman (1985) from her study of a 1 in 4 sample of 3 year olds in a London borough found that about 7% had either moderate or marked behaviour problems and a further 15% had mild problems. 24% of boys had behaviour problems, by contrast with 21% of girls.

The same questionnaire was used in a survey of 100 3-year olds living in a rural North American community in which 24% of the children were rated as deviant. (Earls, 1980). Other studies have tended to confirm this figure.

It will be seen from the above that diagnoses made by psychiatrists in clinical settings, and information gathered from questionnaires are in marked contrast. The former seem to suggest a very low prevalence of severe conduct disorder and hyperactivity: the latter a prevalence of about a fifth of all pre-school children. Such discrepancies may occur both because of the very exact criteria required for a psychiatric diagnosis of conduct disorder/hyperactivity, especially in Britain, and because some children's behaviour disorders tend to be situation specific - although there may be a core whose misbehaviour pervades all situations. (Taylor, 1985).

Clearly, far more research needs to be conducted both to arrive at common criteria for diagnosis across national boundaries, and to enable both the medical profession and parents to share a common framework of understanding and language.

2 <u>Conduct disorder and hyperactivity: an area of overlap</u>

<u>and an area of difference</u>

As was seen in Chapter 2, all forms of enquiry point to a

marked degree of overlap between conduct disorders and hyper-

activity, which Taylor (1985) suggested was as high as 80%.

The evidence appears to suggest that for all practical

purposes conduct disorders and hyperactivity constitute more

or less the same condition. A working definition of this

condition might be:

> Hyperactivity and conduct disorders have many
>
> features in common: impulsiveness, defiance, and
>
> aggressiveness. Hyperactive children, in addition,
>
> manifest a disordered level of activity which
>
> compounds these features.

This area of overlap is not yet commonly accepted by

researchers or practitioners, and the debate still continues in

the literature between those who argue that the two syndromes

are very different (Trites and Laprade, 1983), and those who

emphasise the commonalities - arising from factor analytic

studies (Quay, 1980).

A related field of research is the degree of continuity

which exists between behaviour disorders at one age and at a

subsequent age. These have focused both upon continuities

between pre-school and school ages and upon early school age

to later school age. These two areas are examined separately

below.

3   Continuities of children's behaviour difficulties:
pre-school to school age

While there seems to be a body of opinion among the
general public that children 'grow out of' many of their
difficult patterns of behaviour, there seems to be clinical
evidence only to support the view that they 'grow out of'
mainly the neurotic disorders (the 'emotional disorders' of
Figure 2.1). The prognosis for conduct disorders and, to
some extent for hyperactivity, is less favourable.

Richman (1985) has surveyed the literature in this
field. Two studies, Coleman et al (1977) and Minde and
Minde (1977) both found little relationship between pre-school
disorder and adjustment in the infant school, but from her
own longitudinal study of nearly 100 three year olds in an
inner London borough, 63% of those with behaviour problems at
aged 3 were still considered to have a clinical problem at
aged 4, by comparison with only 11% of a control group matched
for age and social class.

Table 3.1 shows the figures for the same groups at 8 years.

	% with problem at 4 years	% with problem at 8 years.
Children with problems	63	62
Control group	11	22

Table 3.1 Children 'with problems' and a control group at
four years and eight years. (Richman, 1985).

Of the 'problems' group, 38% had had some contact with Child
Guidance services, while of the latter, only 16% had done so.

In the study by Graham et al (1982) the child's sex was an important predictor of persisting problems; 73% of boys with behaviour problems at the pre-school stage had persisting problems at 8 years, compared with only 47% of the girls.

Campbell, Breaux, Ewing and Szumowski (1984) followed up 35 children presenting difficulties and 19 control children 1 year after an initial assessment. Mothers continued to rate problem children as more hyperactive and aggressive than controls, and this was confirmed by independent assessments. The authors interpreted their data as suggesting that 'attention deficit-disorder' can be identified in young children but this has to be considered in the light of the reservations expressed by Prior and Sanson (see Chapter 2). The authors noted that children who were initially more active and aggressive continued to have more problems at follow-up, and suggested that initial severity may be an important predictor of later outcome. Why some difficult behaviours persist, and why others do not, will be examined in the next chapter.

Other studies endorse the evidence of considerable continuity: Jenkins, Owen, Bax and Hart (1984), in a study of continuities in common behaviour problems in nearly 300 pre-school children, found between 5-9% at each age were said to be frequently difficult to manage or demanding too much attention, while 19% of 2-year-olds, 18% of 3-year-olds and 11% of four-year-olds were having temper tantrums at least

daily. Similarly, Stevenson, Richman and Graham (1985), who
followed up a representative sample of 535 children from their
third to their eighth birthday, found that behaviour problems
at aged 3 were strongly related to behavioural deviance at
school at age 8.

4   Continuities of children's behaviour difficulties: early school age to later school age

There are rather more studies of continuities in the
difficulties of children at early and later school age. An
extremely important American study is that of Robins (1966),
who traced 436 of 524 children seen in a St. Louis Child
Guidance clinic in the 1920s. Herbert (1978) has noted the
indications from these studies that frequent antisocial
behaviour in childhood, including stealing, truancy and lying,
was a very strong predictor of difficulties in adulthood.
80% of such children appeared before a juvenile court, and 50%
were sent to correctional institutions. He emphasised Robins'
finding that there were particular dangers when the anti-
social behaviour in childhood was frequent and varied, and
when it occurred outside the family and the child's
immediate social circle.

He also highlighted, as of particular interest, that
many of the children exhibiting antisocial behaviour had
parents who were lax in providing discipline and supervision.

Mendelson, Johnson and Stewart (1971) studied 83 children between the ages of 12 and 16 who had been diagnosed as hyperactive 2 to 5 years earlier. They found about half the children much improved, 25% unchanged and the remainder in between. Symptoms of restlessness, impulsiveness and aggression had persisted, and some of the children were involved in delinquency.

The longitudinal study by West and Farrington (1973) traced 411 boys, aged 8, to 17 years and beyond, and using multiple sources of information from the boys themselves, their parents and teachers, sought to distinguish variables associated with boys who became delinquent from those who did not. Analyses were conducted to determine the effect of each variable, holding others constant. These showed that <u>early troublesome behaviour</u> discriminated between the groups. An analysis of the discriminating factors indicated five variables of particular importance:

1 Low family income

2 Large family size

3 Parental criminality

4 Low intelligence

5 Poor parenting behaviour

The best single predictor of delinquency was teachers' and peers' rating of the boys' troublesomeness at age 8.

This same alarming pattern was endorsed by the study of
Mitchell and Rosa (1981) who used longitudinal data from a
large-scale sample survey of boys in Buckinghamshire.
Outcomes for boys whose behaviour was seen as deviating from
that typical of other boys of school age were compared with
outcomes for a control group who displayed 'normal' behaviour.
The authors reported that over a 15 year period, those in the
'deviator' group were significantly more likely both to become
offenders and to become recidivists. They noted the important
finding that parental reports of anti-social behaviour such as
stealing, lying and destructiveness carried the worst prognosis
for subsequent convictions, especially where teachers' reports
supported those of parents.

5   Stability over time of male aggressive reaction patterns

Olweus (1979) has reviewed 16 studies concerning
continuity of aggressive behaviour patterns in males. The
studies included early studies over short intervals, involving
large numbers of children (N=>200), such as those of Kohn and
Rosman (1974), and they also included small studies (N=36),
over intervals as long as 20 years, such as those of Kagan and
Moss (1962). Olweus concluded that the degree of stability
found in the area of aggression was substantial - not much
lower than that found in the field of intelligence testing.
Moreover, and of particular importance, he found that 'marked
individual differences in habitual aggression level manifest
themselves early in life, certainly by the age of 3'.

Olweus argued that first, the degree of consistency in aggressive behaviour is much greater than that suggested by those who hold the view that behaviour is primarily 'situation-specific', and second, that important variables linked with this consistency can be distinguished early in life.

On the other hand, it looks at first sight as if the major longitudinal study of the National Children's Bureau, concerned with over 17,000 children born in the week 3-9 March, 1958, in England, Scotland and Wales, provides evidence conflicting with the indications of continuity between childhood and adult anti-social behaviour. Data were gathered upon many aspects of the children's development, including separate ratings of behaviour at home and at school, at ages 7, 11 and 16.

Fogelman (1983) has summarised findings upon many aspects of the children's progress. In respect of behaviour rated at home and at school, the 13% of children with the highest ratings of disorder were considered as showing 'deviant' behaviour. (Fogelman acknowledged that the figure of 13% was an arbitrary one.) The researchers' conclusions indicated:

1   Moderate (0.31-0.48) correlations existed between ratings at different ages.

2   Only very small groups of children (about 2.2 per cent) remained in the 'deviant' group at all three ages, 7, 11 and 16.

3   School ratings indicated more girls in groups which were normal, and more boys in the groups which were 'deviant', at all three ages.

Commenting upon the above data, Fogelman (1983) reported

his conclusion:

What can be said with assurance from these results

is that, in interpreting research studies, they

give considerable warning against assuming a static

and pathological stage for children identified as

deviant.

Looking more closely at this statement, however, it may

give false grounds for reassurance. If 2.2% of the children

'remained in the 'deviant' group at all three ages' this

represents, of the 11,000 or so children available for follow-up,

no less than 242 of the children born in <u>one week</u> who were

'deviant' for the greater part of their childhood. This gives

no less than an <u>annual</u> figure of 12,584 'deviant' children

- a most conservative estimate, since it is based upon only

11,000 of the original 17,000 children in the sample. Surely

there is no room for complacent reassurance in such a situation!

Summary

From the studies presented above, it appears that far from

there being evidence that children spontaneously 'grow out of'

difficult behaviour, the reality is very worrying. While

there may be evidence, e.g. from Rutter (1975), that there is

a good prognosis for children with emotional disorders, fears,

phobias and anxieties, there appears to be little evidence

that there is such a favourable prognosis for children with

conduct disorders - of which hyperactivity is often part.

There is no one to one correspondence; i.e. not all
children with conduct disorders in early life go on to be
anti-social at school and during adolescence, but the prognosis
seems to be particularly worrying for the more seriously
aggressive and disruptive children, and less favourable for
boys than girls.

In other words, the studies which have taken place during
the earlier part of this decade appear to endorse the views
(e.g. Rutter, 1975; Herbert, 1978) already being expressed
in the seventies:

> conduct disorders are very much more frequent in
> boys than in girls ... The prognosis for an estab-
> lished conduct disorder is poor, particularly when
> the onset goes back to early childhood. (Rutter, 1975)

Chapter 4

The aetiology of conduct disorders and hyperactivity:

organismic and distal variables

1   Separate or common aetiologies?

As discussed earlier, there is increasing agreement from both the factor analytic studies and from clinical observation concerning the marked overlap between conduct disorders and hyperactivity. Further support for this was offered by Taylor (1985) who concluded that it was so common in clinical practice for the two to be 'intertwined' that many have doubted the value of making the distinction ...

Such an intertwining was certainly found in the study of Stewart, Cummings, Singer and Blois, (1981) who studied 175 children, aged 3-16, and found,

	%
diagnosed as hyperactive	49
diagnosed as unsocialized aggressive	46
both disorders	34

While acknowledging the overlap, at least in terms of the classifications currently employed, it is still important to examine whether the aetiologies of the syndromes are also found to overlap. This will be the focus of the next two chapters.

BEHAVIOURAL TREATMENT OF PROBLEM CHILDREN
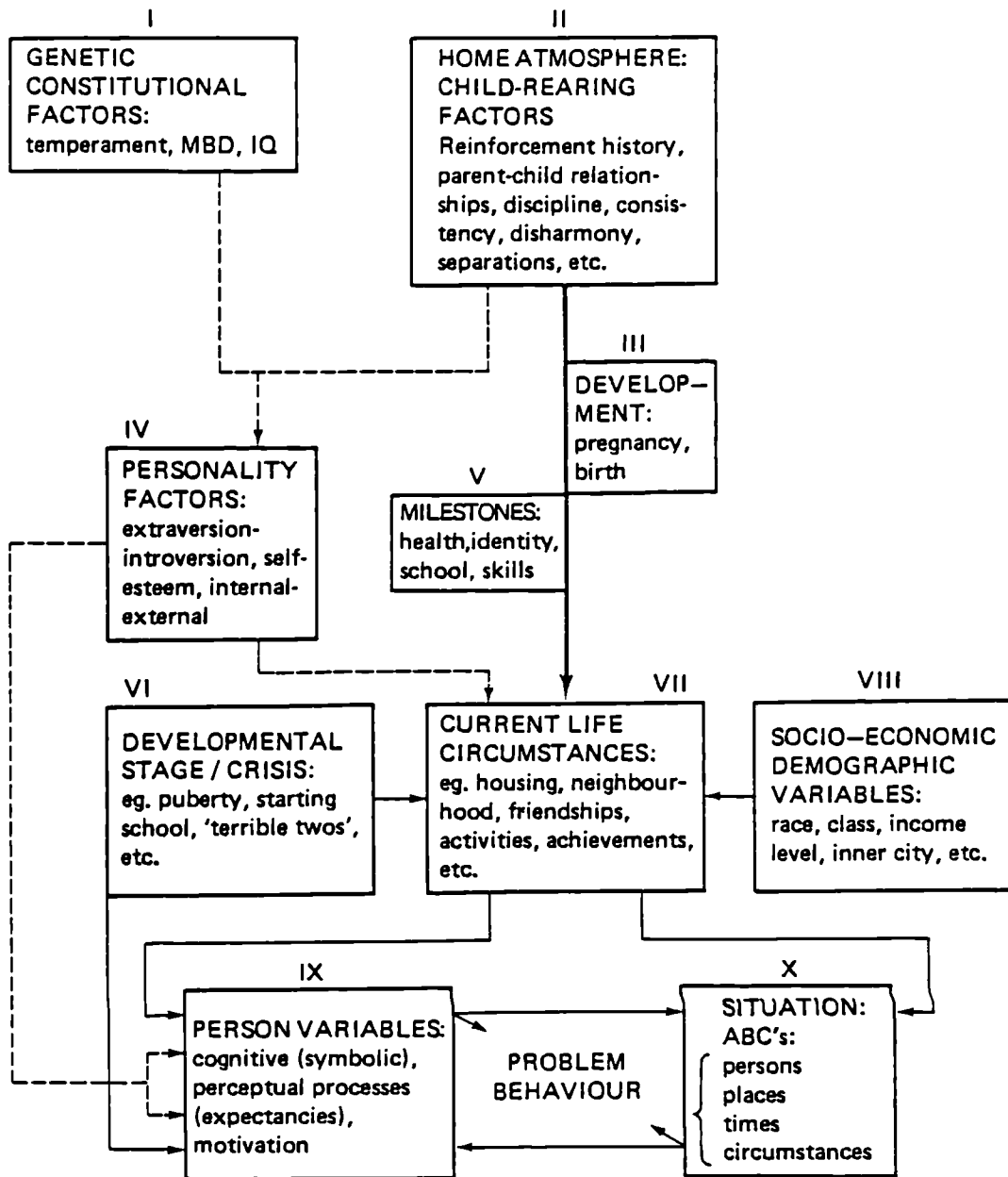
FIG. ⌐.ı The ten-factor clinical formulation, i.e. factors contributing to incidents of problem behaviour. (Adapted from Clarke, 1977.)

Figure 4.1   The ten-factor clinical formulation. Herbert (1981)

2   The variety and interactions of the variables involved

Many contributory variables have been implicated in the study of the aetiologies of conduct disorders and hyperactivity. These have been extremely helpfully conceptualised in a figure by Herbert (1981), and the evidence associated with a number of these variables will be examined by drawing upon that formulation. This is shown in Figure 4.1.

The main groupings to be examined in this are:

Organismic and distal variables

1   Genetic and temperamental factors

2   Brain damage syndromes; neurophysiological disorder

3   Physical factors, including diet

4   Environmental and sociological variables

Variables associated with social learning theory

5   Variables of socialisation and social learning

Each group of variables will be considered in turn: the former group in this chapter, the latter in the next.

2.1   Evidence concerning genetic and temperamental factors

These variables broadly correspond with those shown in Box 1 of Herbert's clinical formulation. From the studies which have taken place, it seems that the contribution of such factors towards conduct disorders and hyperactivity is suggestive but far from conclusive.

Adoption studies have been used as a major strategy of investigation, and among these that of Cantwell (1975) is of particular interest. He compared the biological parents of non-adopted hyperactive children with the adoptive parents of adopted hyperactive children; the biological parents did show an increased prevalence of disorder, of several kinds: the adoptive parents did not.

Cunningham, Cadoret, Loftus and Edwards (1975) compared the adopted-away children of psychiatrically normal and of disturbed parents. Disorder was found to be more common in the biological children of disturbed parents, and, of special interest, this tendency was strong (and significant) for those children diagnosed as hyperactive.

Of additional importance is the study by Stewart, DeBlois and Cummings (1980), who made blind diagnoses of the psychiatric status of parents of children attending a psychiatric clinic. The association held as much for conduct-disordered as for hyperactive children.

Genetic factors can make a contribution in many ways. Thomas, Chess and Birch (1968) have drawn attention to the concept of 'behavioural style' and its implications. They see temperament as neither genetically fixed nor environmentally determined: rather, temperament is to be seen as an interaction between predispositions and external factors.

These researchers conducted systematic interviews with the parents of 136 children throughout their longitudinal study to elicit details of the children's day-to-day behaviour. Nine categories of behavioural style, focussing upon <u>how</u> the child behaved, rather than what he did, were derived:

1   Activity level or energy output.

2   Rhythmicity of biological functions (sleep-wake cycle, hunger, satiety, etc.)

3   Approach or withdrawal to new situations.

4   Intensity of emotional reaction (e.g. whether the child roared with laughter or smiled quietly).

5   Threshold of sensory responsiveness.

6   Adaptability (that is how easily his behaviour changed in response to altered circumstances).

7   Quality of mood.

8   Distractability and attention span.

9   Persistence.

As these 136 babies grew into children, the researchers found marked differences of temperament among them. On the basis of actually observed behaviours, they found clusters of children with differing temperaments. The clusters fell out broadly into four ways.

1   Difficult children: characterised by irregular sleeping patterns of sleeping and feeding, withdrawal and intense reactions. About 10% of children were so classified.

2   Easy children: characterised by regularity of patterns, adaptable behaviour and mild reactions to e.g. novelty. This applied to about 40%.

3   Slow to warm up children: characterised by mixed patterns with negative response of mild intensity and slow adaptation to, e.g., novelty. This described 15% of the children.

4   Children not fitting into the above groupings: about 35%.

Iwaniec (1983) has summarised other findings which compared 'clinical' children, i.e. children who came to the attention of psychiatrists, with those who did not. This showed that over the first five year period, and beginning at about the third year, the clinical group began to deviate markedly from the non-clinical group in terms of negative mood, intensity, tendency to withdraw and be non-adaptive. The children with these patterns became known as 'difficult' children, and were more likely to grow up with behaviour disorders.

Other studies have endorsed these findings: for example, that by Graham, Rutter and George (1973) is of particular interest, in that it assessed 60 children, aged 3-7 years, each of whom had a mentally ill parent. They found that certain characteristics, low habit regularity, low adaptability and high intensity of response, were predictors of later psychiatric disorder.

Cameron (1977) measured the relationship between various risk dimensions of child temperament and the following parental characteristics:

1   Parental disapproval, intolerance and rejection

2   Parental conflict regarding child rearing

3   Parental permissiveness

4   Maternal concern and protectiveness

5   Depressed living standards

6   Limitations on the child's maternal supports

7   Inconsistent parental discipline

8   Large family

Children's temperamental scores, when correlated with the eight parent domains, revealed that parental intolerance, inconsistency and conflict were found to be associated with negative outcomes for the children.

It seems apparent from the above studies that genetic/ temperamental factors may indeed make a contribution to the development of children's conduct disorders and hyperactivity, probably by interacting with other variables.

2.2   Evidence concerning brain-damage syndrome/neuro-physiological disorder

Rutter (1977) has drawn attention to the way in which concepts with snappy titles catch public and professional interest, and persist long after they have been discredited as entities. He suggests that 'brain-damage syndrome' is

an example of this, in that it continues to be invoked despite increasing amounts of contrary evidence of a link between brain damage and childhood misbehaviour.

Rutter went on to examine the difficulties of teasing out the interactions of developmental delays and cognitive abnormalities which are often associated with, but do not inevitably cause, disorders in children, such as hyperactivity.

He concluded that the numbers remained uncertain, but if estimates were made for children with clumsiness, speech delay and similar difficulties, whose disorders are probably linked with brain damage, then a figure of about 5% is obtained. Using evidence from the Isle of Wight studies, (Rutter, Tizard, Yule, Graham and Whitmore, 1976), Rutter (1977) showed that prevalence of conduct disorders and 'mixed' disorders (as well as of emotional disorders) was rather higher for children without brain damage than for those with it. (See Table 4.1).

Diagnosis	No brain damage	'Neuro-epileptic'
	%	%
Conduct/mixed	38	35
Emotional	60	47
Other	2	17

Table 4.1   Psychiatric diagnosis in Isle of Wight studies (Rutter, 1977)

There is converging data reported by Shaffer, McNamara and Pincus (1974) who made controlled observations on the comparative patterns of activity, attention and impulsivity in brain damaged and pychiatrically disturbed boys. Both activity level and impulsivity were significantly higher in the children with conduct disorders, but were not associated with children with neurological disorders.

On the basis of such confirmatory evidence, Rutter (1977) summarised the position concerning brain damage and psychiatric disorder by stating uncompromisingly,

It may be concluded that the behavioural stereotype of the brain damaged child may be firmly rejected. Brain damaged children show a heterogeneous range of psychiatric disorders without specific features, except in the case of certain rarer conditions.

Whatever aetiological factors may be invoked to explain the broad range of conduct disorders and hyperactivity, it seems proven that, except in rare circumstances, brain damage can be ruled out. Let us now consider other factors which have been implicated in the aetiology of these disorders.

2.3 The evidence concerning physical factors, including diet

These variables correspond broadly with those noted in
Box V in Herbert's multifactorial formulation: that is, they
are concerned with health and physical factors.

There is a strong body of opinion concerning the contri-
bution of a range of substances and additives to hyperactivity.
Lead and food additives have been the focus of much attention.

To consider the field of lead first; this appears to
be a source of considerable concern, and one in which the
concern is underpinned by evidence. For example, Yule,
Lansdown, Millar and Urbanowicz (1981) found that even at
conventionally safe lead levels, slight elevations therein
were associated with lowered performance in psychological
test performance and with problem behaviours in subjects.
When other factors, such as adverse social factors, were taken
into account, the variance attaching to lead exposure in such
studies was reduced, but there remained some cause for concern.

It is noteworthy that the United States has already
taken steps to eliminate lead from much of the petrol on sale
to the public.

Turning to dietary additives, the pressure group concerned
with the dangers of these seems more vociferous than that
concerned with lead. One of the main objectives of the
Hyperactive Children's Support Group, for example, is the
elimination of suspect additives from food, and the same
group give much publicity to the Feingold diet (Feingold,
1975).

Parents with difficult children to cope with are naturally

attracted to a unitary explanation, although Taylor (1985)

noted that many were disappointed with the diet.

In brief, both Conners (1980) and Taylor (1985), after

their separate reviews of the relevant literature, concluded

that there was little associating the diet and hyperactivity,

but that there may be 'some island of justification in all

the welter of excited claims'.

2.4 Evidence from environmental and sociological variables

The final set of variables to be considered here are mainly

sociological, and are associated with Boxes VII and VIII in

Herbert's formulation.

There is considerable evidence of the direct impact of

socioeconomic stress upon families in terms of increasing

poverty (Townsend, 1984), unemployment and poor housing

(Burghes 1983). Such factors also play an indirect part in

the development of depression and isolation of, in particular,

working class women in urban environments (Brown and Harris,

1978). Many such women are the mothers of young and active

children, and the presence of several young children at home

was found to be a major variable associated with their

depression, especially when such mothers were without a close

confidante or network of support.

Indeed, Rutter et al (1978), reporting the variables found

to be associated with child psychiatric difficulties in the

Isle of Wight/Inner London borough studies, reported the

devising of a Family Adversity Index, shown in Table 4.2.

1   Father: unskilled/semiskilled job

2   Overcrowding or large family size

3   Marital discord and/or broken home

4   Mother: depression/neurosis

5   Child: ever 'in care'

6   Father: any offence against the law

Table 4.2 <u>The Family Adversity Index (Rutter, 1987)</u>

Rutter (1978) has described how this Index was devised.
Six variables found to be associated with problems in the
child were each scored as '1' if present, giving each child
involved a score between 0 and 6. It was found that children
with high scores were much more likely to have a psychiatric
condition than those with low scores.

It also emerged, however, that children with only one
family stress were not markedly more at risk than children
with no score at all. But children who scored two or more
(i.e. who suffered from two or more family stresses) were
very much more at risk than might have been expected. Rutter
interpreted this as an interaction effect, and reported that
such children were markedly at risk of psychiatric disorder.

When Rutter et al (1975) went on to examine why the rate
for psychiatric disorder, for both boys and girls, and for
both emotional and conduct disorder, was twice as high in
inner London as on the Isle of Wight, it became apparent that
the difference in the prevalence of child psychiatric disorder
was almost entirely explicable in terms of the much greater
frequency of family adversity in the inner London borough.

Summary

Evidence has been examined above for the contribution to conduct disorders and hyperactivity of a number of different sets of variables: genetic/temperamental factors, brain damage syndrome, physical and dietary factors, and environmental and sociological ones - which can have both direct and indirect effects.

While it seems possible that a small proportion of the cases of conduct disorder and hyperactivity may be directly attributable to one or other of these sets of variables, there seems to be far stronger evidence in support of an interactional formulation. This is shown in the figure on page 34, devised by Herbert (1981); the variables discussed in this chapter correspond with those in Boxes I, V, VII and VIII.

The next chapter will consider variables which are associated with social learning theory; these are broadly represented in Boxes II, IX and X.

Chapter 5

The aetiology of conduct disorders and hyperactivity:

variables associated with social learning theory

1 **How do the majority of children become social beings?**

In the previous chapter a number of the distal variables

were examined which make it more difficult for some children

to take their place smoothly in their family and their culture.

This chapter will address the factors associated with social

learning theory which can affect this process of socialization;

they correspond with the variables in Boxes II, IX and X in

Herbert's formulation, shown on page 34. Issues to be examined

are:

    1 The primary processes of socialization

    2 The imitation of other people

    3 Identification by the child with other people

    4 Role learning, within a given culture

    5 The child's active thinking through behaviour

1.1 **The primary processes of socialization**

There would be general agreement from all who have

examined family influences on child development that children

need committed loving relationships (Rutter, 1983). This

active concern for the developing child, together with the

demonstration by cuddles, hugs and attention, on a day-to-day

basis, of the parents' affection and care, seems to provide

the foundation for the growth of attachment relationships -

and for the capacity for reciprocation of love by the child.

Each culture, however, and to some extent, each family
has rather different expectations of how children should
behave, and it is the teaching and training in these patterns
which constitutes what has come to be known as 'socialization'.
Parents begin to employ the principles of encouraging some
responses in their young children, and of discouraging others,
very early in life. Different families consider, and *actively*
teach, certain patterns of eating, of toilet training, of play
and of social behaviour as appropriate: other families and
cultures teach very different patterns.

Many researchers have examined how principles associated
with social learning theory affect young children. For example,
Brackbill (1958) examined the extent to which the smiling
repertoire of four-month-old babies was under environmental
control, and found that it could readily be conditioned.
There is extensive evidence (DeLucia, 1963; Block 1980;
Langlois and Downs, 1980) that many parents systematically,
if unwittingly, train their boy and girl children in what
they regard as 'appropriate' sex roles.

Since it is scarcely any longer a matter of dispute that
parents use principles of reinforcement and social learning
theory in bringing up their children, researchers have
considered how such princples are usefully implemented. One
way which has been noted which has the effect of helping a
child to make sense of the range of messages and instructions
which he or she encounters is that parents actively agree
and implement 'family rules'. Herbert (1978) discussed how

children can benefit from hearing their caretakers clearly
stating, and acting upon such rules as 'Come when mummy or
daddy call'; 'Ask if you can get down from the meal-table'
or, 'Always play where we can see where you are'. Such
practices become part of the child's habitual way of behaving.
They simplify a complex social world, and can offer young
children a dependable set of guidelines to steer them through
some of early life's many uncertainties.

To advocate the adoption of some simple family rules is
to recognise the value of discipline within the home. As
both Rutter (1983) and Herbert (1986) confirm, discipline is
both necessary and supportive to children in fostering good
interactions between children, parents or their other care-
takers. As they indicate, the general guidelines here seem
to be that there should be rules when these promote the smooth
management of complex situations: bed-time, meal times, play
activities and expeditions outside the home. They recommend
that parents should state the rules openly, clearly, firmly
and unapologetically, and that their actions and words should
convey what is positively wanted of the child - by contrast
with unfocused anger and impatience.

The value of such clear discipline is illustrated in
the study by Kallarackal and Herbert (1976) who compared
Indian and English children, aged between 9 and 12. They
found the Indian children more stable and less unruly than the
English, and attributed this in part to the way in which the
Indian parents managed their children, offering them close
supervision and firm discipline at home.

1.2 The imitation of other people

Piaget (1951) was among the first researchers to point out that children of less than a year imitate the activities of other people, particularly their parents, to whose examples they are regularly exposed. Later investigators, such as Danziger (1976) and Bandura (1973) have gone on to examine the fine detail of who imitates whom, and under what circumstances.

Imitation or 'modelling' has become incorporated into the body of concepts known as 'social learning theory', and is one of its cornerstones. It incorporates the study of 'learning by observation' or 'vicarious learning', and draws upon extensive evidence (Bandura, 1965; Mischel and Grusec, 1966) that children actively imitate the behaviours and adopt the attitudes of those with whom they live or meet regularly, particularly if they are warm and loving.

It follows that it is likely that children will imitate the habits, mannerisms, attitudes and behaviours of their parents, and that this is an integral part of the socialization process. It also follows that when seeking to understand where difficulties have arisen in enabling a child to fit into the social world of which he or she is part, it will be important to consider whether, for example, the child's use of aggressive tactics in getting his own way, arises from his copying the practice of smacking or hitting which his parents or caretakers adopt at home.

1.3 <u>Identification with others, especially parents</u>

This refers to the apparent process which occurs when a
child or person associates himself or herself with another,
and thereby comes to behave and feel as the model does.
It appears to be a process which occurs readily in childhood
and adolescence and thus seems to have a major role to play
in the socialization experience.

Mussen and Distler (1959), for example, found in their
study of thirty eight 5 year old boys that the strongest
evidence of identification occurred when the boys perceived
their fathers not only to be warm, but as taking great
interest in them and to be more rewarding to them. Mussen,
Conger and Kagan (1969) point out that parents are likely to
be perceived by children as having great power over them;
they can give or withhold the major rewards of a child's
life: food, affection and security.

Several studies, including those of Becker (1964) and
Hoffman (1970) have emphasised that identification is closely
associated with the development of moral awareness and moral
behaviour in children. Factors facilitating these seem to be:

1   Strong ties of affection between parents and children.

2   Firm moral demands made by parents of their children.

3   The consistent use of sanctions.

4   Punishments which are psychological, e.g. threatened
    withdrawal of approval, rather than physical.

5   Giving reasons and explanations for actions.

1.4 Role learning, within a particular culture or family

The concept of 'role' implies a set of expectations to behave in specific ways in certain settings. While the roles expected of children are clearly more fixed in some situations than in others, such as the role of 'bridesmaid' or 'page' at a wedding, there is tremendous divergence within different families concerning appropriate roles for children.

There is clearly an active interest by children in trying out various roles in play situations which they spontaneously initiate. There appears to be a readiness on the part of both boys and girls to experiment with the activities of parenthood, the classroom, the hospital and the worlds of fantasy and legend in all cultures, and this seems to enrich their understanding of both the potentials and demands of such roles. The field of sex-roles has been most actively explored by researchers (e.g. Cordua, McGraw and Drabman, 1979), but the learning of roles remains a fertile setting for further enquiry, particularly as traditional stereotypes give way to less clear cut definitions.

1.5 The child's actively thinking through behaviour

While such thought has traditionally been considered as the preserve of the older child (Piaget, 1952), there are indications (Donaldson, 1978) that active, considered and sophisticated reasoning is also characteristic of very young children - certainly of pre-school children.

It is a source of continuing interest to perceive how skilled even very small children can be in actively learning the different contingencies associated with different people: a mother and a father, for example, or parents and grandparents. Such skills and sagacity have been incorporated into social learning theory by Mischel (1981), who has suggested that some of the variables which impinge upon what a person, adult or child, does in a particular situation include his or her

1 Competencies: intellectual abilities, skills, etc.

2 Cognitive strategies: habitual ways of attending to information.

3 Outcome expectancies: anticipations of the consequences of different kinds of behaviour.

4 The subjective value to a person of different outcomes.

5 Individual differences in values and attitudes.

If the capacity to make sophisticated *judgments, based* on past experiences of different people in different settings, is a skill available to even pre-school children, then it follows that their parents and caretakers need to be alert to this capacity, and to take it into account when making plans for the child to be cared for by, for example, a child-minder. It is not that children are bent upon exploiting their caretakers at all costs: rather, it seems that the socialization process develops most smoothly when there is reasonable agreement between those concerned for the childen upon the general rules to be observed.

2 What goes wrong when children do not become social beings?

It will be apparent from the above that a number of things can go wrong in the provision of those conditions which enable children to take an acceptable place within their family or culture. As well as the distal variables considered in Chapter 4, the more immediate variables discussed above can also make a direct or indirect contribution to the development of conduct disorders. Sources of difficulty can include:

1 The want of close, affectionate relationships between parents and children.

2 The lack of clear, positive instructions given to the child.

3 Major inconsistencies in the instructions given.

4 The lack of clear models to imitate, or models who are available but explicitly anti-social.

Each will be considered briefly in turn.

2.1 The want of close, affectionate relationships between parents and children

There is abundant evidence (Sluckin, Herbert and Sluckin 1983) that among most important events in the life of a young child is the gradual development of close emotional attachments with those caring for him or her, usually the mother and father but also other relatives or caretakers. This appears to provide the basis for the child's fundamental sense of security.

It seems that it is within the context of a secure and
dependable set of relationships with members of a family or
a family substitute that a child learns to trust others, and
thence to gain confidence in the world as reasonably safe
and predictable place in which to live. If, however, there is
a lack of interest in or active rejection of him or her by the
parents, because of illness, stress or other difficulty, the
child may never acquire that sense of confidence and security
from which so much else stems. The sense of mutual commitment
between parents and child may be totally lacking, and may
therefore have no part to play in enabling the child to with-
stand the pressures of the outside world, and in imposing a
moral restraints. 'What would my parents think?' may be an
irrelevant question to many involved in conduct disorders.

A further danger is that, once a child is seen by the
parents as difficult to manage and unheeding, so a vicious
circle of unrewarding exchanges can be established. For
such relationships are not one-way: they are <u>transactional</u>.
Just as the parents' behaviour and attitudes affect the child,
so the child's behaviour and attitudes affects them.

2 <u>The lack of clear, positive instructions to the child</u>

It seems to be helpful if children actively understand
what is expected of them. Many researchers, (Patterson
1975) have shown that parents tend to instruct a child in what
<u>not</u> to do, rather than in what actively <u>to</u> do. This is

one of the hazards of much punishment: again, it informs a
child, 'Don't do what you have just done!', but it does not
explicitly tell him what is the desired course of action.

This principle is not common knowledge among parents
or among teachers. As Sutton (1979) has reported from her
work in a child guidance clinic, almost never did parents
with whom she worked actively inform the child of the times
when he or she behaved appropriately: the emphasis, and the
attention, was focused upon inappropriate behaviour.

On occasions when she suggested that attention should be
given to instances of constructive and positive behaviour, a
typical reaction was, 'However well I really think of him,
I'd never let him know it!'. It is distressing to think that
serious conduct disorders can develop because parents have
not been educated to know that clear positive instructions
are a far more effective teaching way of teaching children,
(or adults) than criticism and forms of punishment.

There seems to be a major, and extremely important,
educational task to be carried out with parents: they need
clear information that it is both acceptable and effective
to give their children positive instructions, and to commend
them for complying with them.

2.3 Major inconsistencies in the instructions given

While this does not appear to be a major research field yet, there is ample anecdotal evidence (Patterson, 1975; Herbert, 1981) of the conflicting instructions which are given to children.

There seem to be two major hazards. The first is that different people, a mother and a father, or a parent and a child-minder, give the child different instructions, so that he or she either becomes very confused, or, alternatively, becomes adept at discriminating between people and situations and playing off one person against another.

The second is that a parent gives an instruction, perhaps accompanied by either a promise or a threat: 'If you put your toys away, I'll read you a story', or 'Do that again, and I'll send you to bed'. When the actual contingency occurs, however, the parent does not follow through. (The most astonishing instance of this which the author heard was on a ship where a three year old was refusing to eat her lunch. 'Unless you eat that lunch', declared the distraught mother, 'I shall jump overboard!'. Unconcerned, the three year old ate no lunch).

It will be apparent that in each case the child does not learn what the parent intends because the associated reward or threat is not implemented. Such inconsistencies are of course unintended by the parents concerned, but their cumulative effect is unmistakeable: the child learns not to heed parental promises or threats (Herbert, 1978), and goes his or her own way.

As discussed in earlier chapters, many studies, such as Kallarackal and Herbert (1976), have shown that the parents of conduct-disordered children often behave inconsistently to them. This is not surprising, for many parents are often experiencing exceedingly high levels of stress, arising from poverty, isolation, large numbers of children in the family, marital difficulties and the lack of a close supportive network. (Rutter, 1978). It is thus not to be wondered at that such parents find it difficult to instruct and bring up their children in the firm, consistent and confident manner which the theory shows to be the most effective.

This is emphasised in the Brown and Harris (1978) studies of women in central London, which showed that the levels of clinical depression which many of them experienced were explicitly associated with the multiple, and interacting variables referred to above.

2.4 The lack of clear models to imitate, or models who are available but explicitly anti-social

If models whom the child can imitate are of such clear importance, then the availability of parental models is of special value to him or her. For such people to be a part of the child's world for long periods is an additional asset, so that the same people, of emotional importance to the child through enduring attachments, can reinforce again and again the same messages and reiterate the same instructions.

Such reliable models provide examples to follow in the countless demands and stresses of life: in the day-to-day situations of ordinary life, the management of money, the handling of disagreements or conflicts of interests, the care of young, elderly or sick members of the family or community, and the interpretation of sex-roles, enduring and consistent models are exceedingly influential. When they are themselves pro-social they offer examples of pro-social behaviour to the children of the family. Children without such models, particularly if they grow up in disordered and conflict-ridden families, are somewhat more at risk of conduct disorders. (Rutter, 1975).

An alternative hazard, however, is that persisting models are present, but they are themselves anti-social, and hence are exemplars of such behaviour to the growing children about them. For, in keeping with principles of social learning theory, children and young people can be as readily socialized into anti-social as pro-social patterns of behaviour. Young people in this category tend to meet the criteria tend to meet the criteria of the 'socialized aggressive' grouping delineated in D.S.M.-III. For such children and young people, structural factors, such as poor housing and poverty, together with such variables as parental disharmony and divorce, serve to potentiate the aversive experiences described above.

3   Why do some children's disorders persist, and others not?

In this final section, which draws upon the principles
and discussions considered earlier in this chapter, it is
fitting to examine some of the reasons why some children's
behaviour disorders persist from childhood through adolescence
into adulthood, and why others do not.

The framework for this examintion is again, appropriately,
the multifactorial formulation devised by Herbert (1981),
shown as Figure 4.1, page 34. The main variables seem to be:

1   Children's 'difficult' temperamental features. (Box I)

2   Interactions between children's temperamental features and
    developmental stages they pass through. (Boxes III and VI)

3   Interactions between children's temperamental features and
    stresses encountered by the parents. (Boxes II and VII)

4   Parents' perceptions of their children. (Box IX)

5   Parents' ignorance of social learning principles. .(Box II)

Many of these issues have already been discussed above.
It is intended therefore mainly to recapitulate these, and to
highlight particular sets of interacting circumstances which
illustrate how some conduct disorders persist and others
extinguish.

3.1 Children's 'difficult' temperamental features. (Box I)

As already discussed, the evidence from the longitudinal

studies of researchers such as Thomas, Chess and Birch (1968)

suggests that there are considerable consistencies of child-

hood temperamental features over time. Where these predispose

to regular sleeping habits, flexible reponses to change and

general 'easy-going' characteristics, things bode well both

for the child and relationships with parents: but where

the child is restless, disliking change and 'negativistic'

such features can contribute to a pattern of anxious, tense

and mutually unrewarding relationships between parent and

child. (See Iwaniec, 1983).

3.2 Interactions between temperamental features and developmental stages (Box III and VI)

All children, as they traverse the various developmental

stages of early childhood experience difficult periods. As

described earlier, Goodenough (1931) noted a peak of

angry outbursts in both boys and girls in the period of 18-24

months, and Bolman (1974) has charted the stages of aggressive

behaviour, including, for example, the typical 'terrible twos'.

Since these early years coincide with some of the most exacting

aspects of socializing young children into the ways of their

families or cultures, such as teaching conventions of eating

and toilet training, these settings may become battlegrounds

for some families, particularly those with already 'difficult'

children. Existing problems may be intensified and so persist.

3.3 Interactions between temperamental features and stresses encountered by parents (Boxes II and VII)

In addition to experiencing such difficulties, some children grow up in home atmospheres marked by acute marital tension, and by multiple stresses arising from unemployment, poor housing and increasing poverty. As was discussed earlier, it is not surprising if, against such a background, parents are unable to offer the desired consistency and firmness of discipline most conducive to prosocial behaviour among children

Mothers are particularly vulnerable to the stresses of having to care for young children, sometimes of the 'difficult' kind described above; and if this takes place in settings where they are effectively isolated and without networks of family support, the stage is set for the persistence into later childhood and adolescence of the conduct disorders which were noted as common in early childhood in the epidemiological studies. Rather than extinguishing, disorders may intensify.

3.4 Parents' perceptions of their children (Box IX)

Some parents feel that they have never had control of their children (Sutton, 1979); others that they lost it within the earliest years of life. Having felt that control is lost, they are likely to abandon efforts to change the course of events: they have explicitly 'learned' helplessness.

3.5 Parents' ignorance of social learning principles (Box II)

Many parents are not only unfamiliar with, but are actively

bewildered by, some of the principles of social learning theory

(Sutton, 1979). It was a source of astonishment to many

parents that to beat a child could, in any way at all, be

rewarding to him or her.

Thus, while they could understand *the idea that a child*

might be behaving badly 'because he got something out of it',

they found it very difficult to think of <u>attention</u> as being

rewarding. Indeed this was a very difficult idea indeed for

some parents.

Many did not seem either to grasp or to believe my assur-

ances that this could be so, and, as will be described below,

they often reverted all too speedily to beating children whom

they wished to punish.

This illustrates yet another means whereby many conduct

disorders, far from extinguishing, maintain and even intensify.

The misbehaviours of the mildly naughty child are likely, in

the ordinary course of events, to be responded to with

reasonable consistency and firmness by parents, caretakers

and teachers; they are explicitly ignored or clearly

penalised, and under such circumstances, usually extinguish.

The challenging and provocative behaviours of the 'difficult'

child are too serious to be ignored by most parents or teachers

unless they know principles of social learning theory very well

indeed! They may react in ways which have the effect of

maintaining these very behaviours by the attention offered.

Summary

It appears then, that children become social via the day-to-day experiences of living with people who care deeply about them, whose relationship with them is enduring, predictable, and consistent, and who work hard day after day, year after year, at teaching them the patterns of behaviour required of them.

It seems to be conducive to strong and positive social and moral learning if the child is informed clearly of what he or she should do, rather than of what he or she should not do; it also seems to be important to commend warmly compliance with these instructions.

An additional inducement to becoming a social being is the ready availability of clear and confident models - people who are able to give the child clear examples of what is wanted, and with whom he or she can identify.

It is a fortunate child who experiences all these circumstances, and few children do so. Most children experience 'good-enough' parenting, however, within which mild behaviour difficulties extinguish, and habits of self-control are acquired. It is those children who display marked behaviour problems early in life, and who do not experience the positive circumstances which counteract them, whose conduct disorders are most likely to persist.

Chapter 6

The treatment of conduct disorders and hyperactivity

Just as the aetiology of conduct disorders and hyper-
activity has been conceptualised in a variety of ways, so
too have treatment approaches. They correspond, as one would
expect, with the diagnostic hypotheses of the hypothesised
aetiologies: thus those who suggest that the disorders
arise from dietary factors advocate adopting a modified diet,
and so on. Five treatment approaches will be examined:

1   A medical model: drug treatment.

2   A physical model: control of exposure to lead and
    of diet.

3   A psychological model: psychotherapy.

4   A social learning model: using or teaching behavioural
    approaches.

5   A sociological model: offering parents support systems.
    Each will be considered in turn.

1   Treatment based upon drugs

There have been extensive reviews of the treatment of
conduct disorders, such as aggression, and hyperactivity in
young children by the use of drugs. These have been located
mainly in the United States, since American research has
emphasised the biological causes of hyperactivity, and its

responsiveness to drugs, while researchers in Britain and elsewhere have focused upon the social causes and psychological treatment of such disorders.

In considering this issue in 1978, Herbert reported the use of pharmacological agents to control hyperactivity since the 1930s. More recently the use of drugs has aroused public controversy in the United States, as some researchers, such as Sroufe (1975), have reported that drug therapy has been administered to up to 10% of all pupils in some American school districts.

Herbert went on to enumerate the types of drugs prescribed: central stimulant drugs; major tranquillizing drugs; and anti-depressants. While acknowledging the short-term effectiveness, at least in terms of controlling very active behaviour, of such medication, he highlighted the dangers involved; these include not only side-effects for the children concerned, but also the danger that therapists will prescribe drugs, perhaps year after year, because they appear to offer an easy solution to a challenging situation.

Interestingly, such dangers are now being acknowledged in America (see Barkley, 1982). His concern about the over-reliance upon medication, and the ethical issues he raises, will be reported below.

The evidence concerning the use of medication, however, does not appear to be at issue. Taylor (1985) in his review of the syndromes of overactivity and attention deficit, concluded in relation to drug treatment that reviewers such as Barkley (1977) and Ottenbacher and Cooper (1983) had been able to draw on scores of controlled trials, and that the evidence on stimulants was clear and overwhelming. That is, that during the period of a trial - typically a few weeks or months - stimulant drugs reduced the severity of problem behaviours and improved performance on tests of concentration and speed.

While noting that the <u>effect</u> of stimulants was firmly established, however, Taylor considered the serious doubts about their efficacy. He highlighted the great international differences which exist between the extent with which such drugs are prescribed across countries, and reported the finding of Sprague (1978) that they were used by rather more than 1% of all schoolchildren in North America but by only a tiny fraction of English children.

Taylor went on to discuss continuing uncertainties about the impact of long-term use of the drugs and about their side-effects, particularly upon children's academic progress.

Barkley (1981), one of those researchers who is clearly troubled by such extensive use of medication in the United States, has reported the work of Gittelman-Klein and her colleagues (1980), who compared the effects of Ritalin alone, behaviour therapy with a placebo, and behaviour therapy alone upon 61 hyperactive children. Extensive pre- and post-measures, from parents, teachers and psychiatrists, showed the following ranking in terms of effectiveness:

1   Combined treatment: medication plus behaviour therapy (e.g. psychiatrists considered 100% of the children were improved).

2   Medication only (81% were similarly considered improved)

3   Behaviour therapy only (58% were considered improved).

Despite this, it is Barkley who voices major disquiet about the continuing situation in America, and has explicitly asked:

1 How ethical is it to treat childrn with drugs

of little known long-term efficacy because of

the intolerance of their parents or teachers?

2 Have drugs simply become too easily available

as a method of treatment?

3 Can society afford the apparent double standard

of instructing children not to turn to recreational

drugs to solve their problems while using similar

drugs to solve its own?

4 Are hyperactive children learning to view
medication as the solution to their social problems?

5 What are the implications of the politics of drug
therapy? We seem to be more likely to use drugs with
children of lower educational and socio-economic
backgrounds, whose parents may be less literate and
may also be members of racial minorities.

6 Are the research findings clear enough to warrant
medicating 700,000 or more children every year?

7 Should school and physicians team up as they do
to 'coerce' parents into using drugs with their
children? Are we simply patching up an obsolete
educational system?

Barkley clearly feels such disquiet about these ethical
questions that he has moved swiftly to advocating the far
more extensive teaching of behavioural approaches. In this
way parents may be enabled to manage their conduct-disordered
and hyperactive children themselves, and make unnecessary the
administration of long-term, powerful medication.

Similarly, he notes the helpfulness both of a general
behavioural orientation in the classroom and of individualised
programmes for children in school to enable them to reach
their potential, unhampered by hyperactivity or conduct
disorders.

2 <u>Treatment based upon control of exposure to lead and</u>

<u>of diet</u>

As discussed in Chapter 4, the evidence concerning the
effects of both lead and some dietary factors is unresolved.
In such circumstances, Taylor (1985) has concluded that in
relation to lead, it is sensible, when conducting an assessment,
to check that a child is not being excessively exposed to this
danger in his or her environment.

In relation to diet, Taylor is extremely circumspect; he
acknowledges that idiosyncratic responses to food colourings
and preservatives are known to cause physical symptoms such as
asthma in some children, but he continues by demonstrating how
confused and contradictory is the evidence which stems from
the many and varied studies.

He concludes that the most probable synthesis of this very
confused body of research is that most hyperactive children
do not in fact respond physically to the elimination of
additives, that many respond via family concern and suggestion
and that a few children, as yet indistinguishable, show a
genuine, but idiosyncratic response. He therefore recommends
that doctors should not prescribe the diet, but that they
should support families who have decided to try it. At the
same time other forms of treatment and education should be
offered as supplements.

3 Treatment based upon a psychological model: psychotherapy

A number of researchers seeking to help families distressed by the troublesome conduct of children have employed a range of traditional psychotherapeutic techniques. They have hypothesised that the child could be understood as 'acting out' internal tensions which might be resolved through such means as insight-giving or play therapy.

Two studies based upon this principle however provided no evidence in support of such a hypothesis: Eisenberg, Gilbert, Cytryn and Molling (1961) and O'Malley and Eisenberg (1973) both found minimal success using such approaches.

Taylor (1985) however has offered a useful comment upon the potential contribution of family therapy to the management of conduct disorders and hyperactivity. He has suggested that several lines of evidence have pointed to the liklihood that family interactions are involved in the development of hyper-activity and inattentiveness in some cases. When the problems are those of anti-social conduct disorder, then their association with complex family interactions is even more probable.

Such a way of looking at the potential of family therapy is encouraging, in that it highlights the possibility of using a family-educational approach - as distinct from the family-pathology model so frequently encountered.

4   Treament based upon social learning principles: using

or teaching behavioural approaches

In line with the principles of social learning theory

already referred to, researchers considering how best to

intervene in conduct disorders and hyperactivity often find it

useful to think in terms of a child presenting such behaviours

having learned maladaptive behaviours, or, alternatively, of

his or her having failed to learn other adaptive behaviours.

This alternative formulation has been found helpful on both

sides of the Atlantic (Herbert, 1981;   Patterson 1975), and

in that it offers a two-fold strategy for addressing difficult

behaviours it is attracting much research attention.

The main researchers into the field of the treatment of

difficult behaviour in terms of behavioural or social learning

theory are Patterson and colleagues in America, and Herbert

and colleagues in the United Kingdom.   The latter group has

reported 117 case studies (Herbert, 1978) in which each subject

acted as his or her own control, and which, cumulatively, is an

impressive body of evidence supporting the value of teaching

parents behavioural approaches in managing their children.

Yule (1981) has summarised the seminal work by Patterson

and his team (1974a, 1974b and 1974c) which reported outcomes

for 35 adolescent boys with recognised conduct disorders.

Parents were taught to apply a range of principles from social

learning theory, and three types of criterion measures were

gathered: targeted deviant behaviours, total deviant scores

and data collected daily by the parent.   Yule reported that

on all three sets of criterion measures, statistical analysis
showed that the changes were highly significant.

Yule noted Patterson's own summary, in 1975, of the
effects of the treatment programme, emphasising that the
emphasis was on strengthening both parental reinforcers and
sanctions in the context of contracts developed between child,
parent and school.

The findings showed that most parents could be taught the
necessary skills. While there was no formal analysis, it
was Patterson's impression that for about a third of the
families, it was sufficient to adopt the simplest strategy,
for example, teaching the parent the specific skills for
changing child behaviours. Another third of the families
seemed to require much more than this, such as the teaching
of negotiation skills, and how to deal with marital conflict
and depression. Without such help the prognosis seemed poor.
The remaining third failed despite the team's best efforts.

A number of controlled experiments were also conducted,
all with difficult adolescents, not younger children. Walter
and Gilmore (1973) placed 12 consecutive referrals in either
the social learning based treatment programme or a placebo
treatment group. The former group showed improvements which
reached significance: the latter showed non-significant
deterioration.

A study from the same set of referrals, conducted by
Wiltz and Patterson (1974), compared outcomes from allocating
boys to a behavioural treatment programme or to a waiting list
control. The former produced significant reductions in rates
of deviant child behaviour, while the rates in the waiting
list group remained constant.

It should be acknowledged however, that even now, more
than a decade later, there is not a substantial number of
controlled studies in which the outcomes for children's or
adolescents' difficulties treated by behavioural methods have
been compared with outcomes for difficulties treated in
by other means.

One of the few large-scale studies was referred to above:
that of Gittleman-Klein et al (1980), who compared outcomes
for 61 hyperactive children using medication alone, behaviour
therapy alone, or a combined treatment approach: the combined
treatment was found the most effective.

This shortage of studies has been noted by Frankel and
Simmons (1985) who have highlighted the few studies available
dealing with aggression, compared, say, with self-injurious
behaviour. They call for an extended research programme to
identify some of the variables intrinsic to the child, as well
as some of those external to him or her. This shortage of
of research may be comprehensible because America, where so
much research is located, is still committed to a medication-
based response to conduct disorders and hyperactivity. There
is thus a major opportunity for researchers in Britain to set
up and evaluate services for the parents of young children.

5   Treatment based upon a sociological model: offering

social support

It seems appropriate at this stage to consider the

indications that a number of families containing hyperactive

or conduct disordered children may find themselves isolated

from support systems, familial and otherwise.

While psychologists have not frequently investigated such

variables, it seems fitting that responses to the needs of

families with disordered children should be offered in as

many ways as possible.

While there is no clear evidence linking hyperactivity

with child abuse, one important hypothesis which merits urgent

testing is that such children are at risk of abuse.   In

America and in Britain organisations, both statutory and volun-

tary, are seeking to set up community services to whom desperate

parents in need of support can turn for companionship and help.

Such organisations in Britain are Home Start and Parents

Anonymous, both of which seek to offer community support to

parents in need.   While they have not, as far as the author

knows, been systematically evaluated in terms of their direct

impact upon the children concerned, their growth and extension

to a national level suggest that they meet a real need, and

make at least a contribution to the range of strategies

devised to help parents coping with demanding and difficult

children.

Summary

Many treatment approaches have been implemented in an
attempt to respond to the difficulties posed by conduct dis-
ordered and hyperactive young children.   These include
strategies based upon medication, control of lead exposure
and dietary factors, psychotherapy, behavioural approaches
and the offering of social support and community services.

While there is clear evidence of the effectiveness of drug
treatment, nevertheless ethical questions must surround the
administration of major drugs to as many as 1% of the school-
children of America, especially when long-term outcomes and
political implications have not been fully explored.

Researchers on both sides of the Atlantic are increasingly
interested in the potential of behavioural approaches, but,
paradoxically, there is a relative shortage of large-scale,
well-designed studies, particularly relating to preventive
work with young children. The potential for engaging in such
work is clear, and this was the starting point for the present
study.

Chapter 7

Social learning theory as the framework for the present study

It has been noted in earlier chapters that there has been a
swiftly developing interest on both sides of the Atlantic in
the possibilities offered by social learning theory as a set
of concepts which contributes to understanding and treating
hyperactivity and conduct disorders. It is time to examine
examine this body of concepts in greater detail.

7.1 Social learning theory within the scientific tradition

Implicit within the body of ideas which have come to be
called social learning theory are some important principles;
Yule (1985) has shown that these are in fact located clearly
within the scientific tradition, and indeed echo the
'hypothetico-deductive ideal'. Briefly, this requires the
systematic application of the following principles:

1   The proposing of a hypothesis

2   Locating this within a statement of 'initial conditions'

3   Deducing from 1 and 2 a 'prediction', and

4   Finding whether or not the prediction is fulfilled.

Supporters of this approach fall into two groups. Some
think successful tests confirm the hypothesis;   others,
following Popper (1972), suggest that a single failed
prediction can show the hypothesis to be false, and thus
'good science' lies in falsifying hypotheses.

Using the same starting point, Yule (1985) has shown how

social learning theory, and in particular its more narrowly

circumscribed component, behavioural theory, are underpinned

by the same scientific method, in that they require steps

closely in line with the 'scientific ideal':

1   Defining the problem objectively

2   Setting up hypotheses to account for the observations

3   Testing these hypotheses, and

4   Evaluating the outcome

This method will be illustrated in the present study.

First, however it will be helpful to clarify the differences

between conceptualisations of children's behaviour problems

based mainly upon operant theory and those based upon the

broader and more inclusive set of concepts, social learning

theory. The two bodies of theory do not contradict each other,

but the latter is broader and takes into account a wider range

of variables. The overall term used to describe this body of

concepts is 'behaviour modification'.

7.2 <u>Behaviour modification, operant theory and social</u>

<u>learning theory</u>

7.2.1 Behaviour modification

As Yule (1985) has suggested, the difference between the

applied scientific approach and other therapeutic approaches

is that the former is marked by the 'crucial emphasis placed

on the evaluation of changes in the individual patient and

in testing whether these changes were the direct result of the intervention.' Such evaluation is, at its best, extremely rigorous, and the benefits of this rigour are now becoming increasingly apparent in terms of theoretical fruitfulness.

Thus, on one hand, following painstaking and exacting experimental work, a number of theoretical principles concerning how people learn have been teased out; on the other, as the principles have become clearer, so efforts to apply them to the relief or alleviation of human problems have intensified. They have proved particularly beneficial in the fields of children's and adults' emotional and behavioural dysfunctions.

As stated above, the broad term which is often used to describe attempts made to alleviate peoples' difficulties by drawing upon such scientifically-derived principles is 'behaviour modification'. As Yule (1985) has also suggested, the guiding principles of this approach are 'that (a) behaviour is responsive to particular stimulus configurations; and (b) behaviour may be modified by its consequences'. Behaviour modification is a very broad concept, however, and before going on to discuss the theoretical framework for the present study it is necessary to examine further two contributing bodies of concepts: operant theory and social learning theory.

7.2.2 Operant theory

This is the body of theoretical ideas which has at its core the principle that operant behaviour is a function of its environmental consequences (Watson and Tharp, 1981). While it

is not possible to examine in depth the extensive range of concepts associated with this key principle, some of the major ideas will be briefly described and illustrated below.

7.2.2.1 Reinforcement

Any event or stimulus consquence that increases the strength or probability of the behaviour that it follows is called a reinforcer (Yule, 1985). Such reinforcers are highly individual, since what strengthens the probability of one person's behaviour may not do so to another's behaviour. For many people, however, their behaviour is more likely to be strengthened by commendation or rewards from others, and by the withholding of punishments or sanctions.

The above formulation indicates that reinforcers can be of two main types, positive and negative. These concepts will be discussed briefly below.

(i) Positive reinforcement

Watson and Tharp (1981) suggest that a 'positive reinforcer is a consequence that strengthens behaviour by its added presence', and they highlight the idiosyncratic nature of the concept: what is positively rewarding for one person will not necessarily be so for another. Nevertheless, for many people, money, in the form of salaries or wages, praise and social approval tend all to be powerful positive reinforcers.

For example, a child who is given pocket money upon the completion of household chores or who is praised for diligent classork by a teacher, is more likely to repeat such behaviour

than one whose efforts are unnoticed or unappreciated. It will

be apparent, however, that using the same operant ideas, the

buying of sweets in order to maintain 'good' behaviour, and

the attention given to a disruptive child are also instances

of positive reinforcement since they make repetition of the

behaviour more probable.

(ii) Negative reinforcement

Watson and Tharp (1981) suggest that 'a negative rein-

forcer is one which strengthens behaviour by being removed

from a situation'.

It is important to highlight, however, that in popular

parlance, the expression 'negative reinforcement' is often,

erroneously, confused with and used instead of the more

accurate expression, 'punishment' or 'penalty'. The various

terms will be distinguished more fully below.

(iii) Punishment or penalty

This is any event which has the effect of decreasing

the probability of recurrence of the behaviour that preceded

it. There are two types of punishment: one is the occurrence

of an aversive event following a behaviour; the other is the

loss of a pleasant event following a behaviour.

Watson and Tharp (1981) clarify the distinctions between

negative reinforcement and the two types of punishment in

the following way:

Negative reinforcement

Behaviour .... escapes or avoids a

(usually unpleasant)

consequence; this ..... strengthens the

behaviour

For example, studying may be increased in schoolchildren by removing threats of detention or loss of pocket money, contingent upon behaviour.

Punishment, type 1

Behaviour .... leads to some unplea-

sant event; this ..... makes the

behaviour less

probable

For example, a child's hitting may be reduced by its being consistently followed by the child's being excluded from play with other children.

Punishment, type 2

Behaviour .... leads to the loss of

something pleasant;

this .... makes the

behaviour less

probable

For example, a person's swearing may be reduced by people walking away whenever it occurs.

As we saw with other aspects of operant theory, however, 'punishment' is highly idiosyncratic, so that while for many children a smack may be a powerful punishment and discourage the behaviour it follows, for others smacks may be actively rewarding - since, for them, any attention is better than none.

7.2.2.2   How principles of reinforcement work: schedules of reinforcement

These principles are apparently operating whether we are are aware of it or not, and whether we intend it or not. Some ways in which this happens are as follows:

(i)   Continuous reinforcement

This is the continuous responding to a behaviour every time it occurs. For example, the consistent praising by parents of a handicapped child of every effort to dress himself;   or, by contrast, the consistent removing of a child to a dull, but safe place for a few minutes every time he hits another child.

(ii)   Intermittent reinforcement

The responding to a behaviour occasionally: for example, the occasional word of thanks to a volunteer or the occasional expression of affection by a parent to a child.

This principle is a very important one since research into this aspect of operant theory demonstrates very clearly that behaviour which is intermittently reinforced is behaviour which is maintained over long periods of time. For example, a child who is occasionally allowed to come downstairs after being put to bed is more, not less, likely to repeat the coming downstairs behaviour if just now and again he is allowed to remain downstairs instead of being put back to bed.

7.2.2.3 Extinction

This refers to the 'dying away' of a behaviour which is not reinforced. Thus, a child whose whining is ignored is likely to stop whining;   similarly, the efforts of a child to please parents or teachers, if unrecognised and ignored, are likely to extinguish.

7.2.2.4　Generalisation of behaviour

It has been found that many behaviours, especially well-learned ones, tend to carry over from the settings where they were originally learned into new situations.　For example, childhood patterns of friendliness, reserve, dominance or dependency are likely to carry over into adult life.

7.2.2.5　The effect of immediate, versus delayed, reward.

Reward offered immediately following a behaviour, rather than after a delay, makes it more likely that the behaviour will recur.　For example, children learning to read do so most easily when the feedback (i.e. the teacher's comments on their achievement) is immediate and specific rather than delayed. Similarly, penalty administered immediately after a behaviour makes recurrence less probable.

7.2.2.6　The effect of 'differential reward of other behaviour'

The penalising of instances of one behaviour, together with the systematic rewarding of its opposite has been shown to be a potent way of teaching new patterns of behaviour.　For example, the regular checking of every instance of kicking, hitting, biting and pushing by an aggressive child, together with commendation for every act of sharing and kindness, has been found to achieve marked behaviour change in such children.

These principles then are some of the most important ones which form the core of a broadly <u>operant</u> theoretical formulation;　it is now time to examine how within <u>social learning theory</u> these principles are not only confirmed, but are

enriched and strengthened by incorporating additional variables

such as the social context of learning and cognitive processes

of individuals. This is not to imply that operant theorists

have neglected the role of social-cognitive variables, but the

emphasis upon the far-reaching implications of social and

covert events is elaborate and pervasive in the writings of

social learning theorists.

7.2.3 Social learning theory

As with operant theory, this is the body of ideas, starting

from a common base, which, as Herbert (1981) has suggested,

address the patterns of behaviour which an individual learns

in coping with the environment. It incorporates operant theory

with its emphasis upon environmental variables, but goes beyond

it in according a high status to cognitive and covert variables.

It takes into account the interactions between the person and

the many systems, external and internal to the person, of which

he or she is part. Herbert (1981) has suggested in Figure 7.1,

how, for purposes of assessment, all these features may be

brought together within an integrated model.

Particular features which have been researched include:

1   The social and organismic context in which learning

takes place

2   The antecedents to learning

3   Cognitive, perceptual and thinking processes

4   Learning by observation of other people

Each will be considered briefly below.
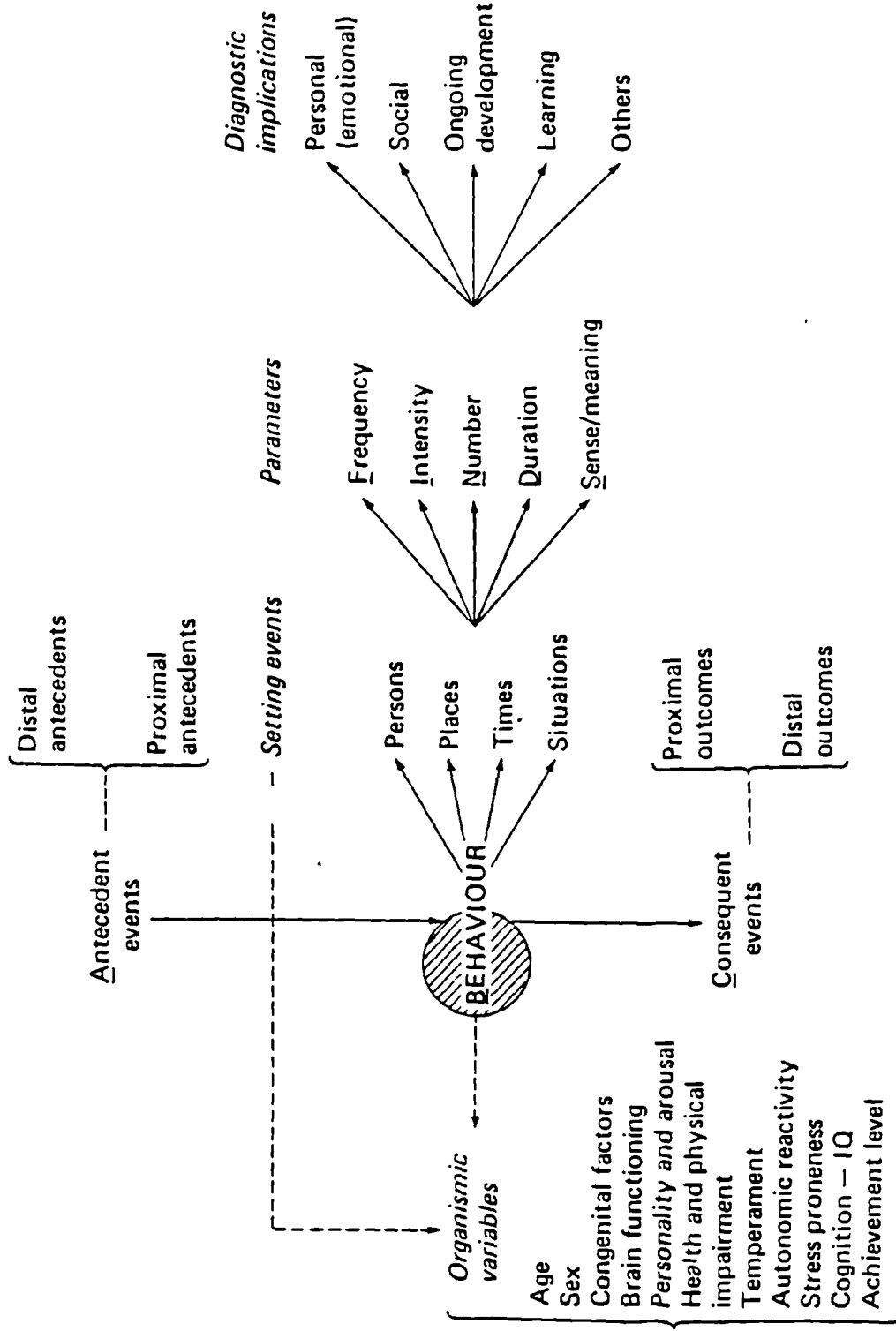
FIG. 7 I General assessment guidelines: this provides you with an overview or groundplan to assessment, the first stage being an initial screening of your clients.

HERBERT (1981) BEHAVIOURAL TREATMENT OF PROBLEM CHILDREN. ACADEMIC PRESS.

REPRODUCED WITH THE AUTHOR'S PERMISSION.

7.2.3.1 The social and organismic context in which learning takes place

Herbert (1981) has emphasised that learning does not take place in a vacuum: it occurs within a social context, and it occurs in relation to an interior environment (so called 'organismic variables'). A young child may learn skills and develop abilities in many different contexts: relationships with parents, childminders, neighbours and friends and companions at playgroup. Thus a child who attends a nursery may please his parents with new skills in counting, painting and sorting; he may shock them by his newly acquired vocabulary of swear words. Both sets of behaviour, the 'desirable' and the 'undesirable' have been learned within the same social setting.

At the same time, however, the child (and adolescent) are responsive to, and limited by, developmental changes: physiological, cognitive, etc. These are important to know about and assess in clinical practice.

7.2.3.2 The antecedents to learning

This concept refers to the precise configuration of circumstances within which learning takes place. Operant theorists are likely to stress that this configuration will be primarily environmental: social learning theorists are likely to emphasise that the configuration can have cognitive and covert features, as well as environmental ones.

Sometimes it is possible precisely to pinpoint the cues which 'trigger' problem behaviour. In terms of both operant and social learning theories there is, for example, ample evidence (Herbert, 1981) of the discriminatory skill which children can show in selecting the setting and people with whom to throw a tantrum or refuse to comply. Antecedent danger zones which parents will recognise include moments of parting, e.g. when a child is to leave a mother to spend time with a childminder or at nursery school; public settings, such as on buses; and times when parents particularly hope children will behave well, such as when grandparents or visitors come. The child's capacity to recognise and exploit these situations, with the effect of 'showing the parent up', is a skill dreaded by many parents, not only those with difficult children.

Similarly, many parents will recognise their child's ability to 'play one parent off against another'; his or her ability to exploit a situation so that, for example, disruptive behaviour is 'reserved for mothers only'; when father comes through the door it ceases literally 'on cue', so that he never actually sees the child in full display.

Considerable research continues into the task of pinpointing precisely the antecedents which act as cues to e.g. aggressive behaviour, and which explain, for example, why one teacher may be able to manage a child without the slightest difficulty while another finds him wild and uncontrollable.

7.2.3.3   Cognitive, perceptual and thinking processes

Both operant and social learning theories recognise the individuality of cognitive, perceptual and valuing processes. The major distinction between the two theories is that the latter accords markedly higher status to cognitions - and in particular to reinforcers and punishers via self- reinforcement and vicarious reinforcement. For operant theorists, the reinforcers must be in the environment - as must the behaviours.

Mischel (1981) and Herbert (1981) have both discussed the important differences in perceiving, judging and thinking which contribute to the idiosyncracies in people's day-to-day living. Such individuality is probably influenced by the tendency to behave in learned ways, e.g. confidently, by 'self-statements' ('I'm clever') and by assessing the 'meaning' of an occasion.

For example, some children who make their mothers' lives a misery show exemplary behaviour when taken to see a doctor or psychologist; a child who actively 'eggs himself on' ('self reinforces' in terms of social learning theory) when with his mother, may be calm and controlled when being seen by a doctor. Such discrimination arises from highly individual cognitions and and from perceived 'meanings' and expectancies. (See Figure 7.2).

7.2.3.4   Learning by the observation of other people

Social learning theory also takes account of 'modelling' - the way in which people model themselves upon others. Bandura (1973) has examined the special impact of aggressive models, especially upon children. Those chosen as models include:

(i)   Friendly and kind people, particularly by young people.

(ii) People whose behaviour is seen to be rewarded.

(iii) People who have power and status in the same social system.

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┌──────────────────────┐         ┌──────────────────────┐
│ PERSONAL VARIABLES.  │         │ SITUATION:           │
│ cognitive (symbolic),│         │ ABC's:               │
│ perceptual processes │ PROBLEM │ ⌠ persons            │
│ (expectancies),      │BEHAVIOUR│ ⎨ places             │
│ motivation           │         │ ⎮ times              │
│                      │         │ ⌡ circumstances      │
└──────────────────────┘         └──────────────────────┘

        ┌──────────────┐      ┌──────────────┐
        │   REWARDED   │      │ NOT REWARDED │
        └──────────────┘      └──────────────┘

    ┌──────────────────┐    ┌──────────────────┐
    │ MORE LIKELY TO BE│    │ LESS LIKELY TO BE│
    │  REPEATED IN A   │    │  REPEATED IN A   │
    │ SIMILAR SITUATION│    │ SIMILAR SITUATION│
    └──────────────────┘    └──────────────────┘

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            │    OF BEHAVIOUR      │
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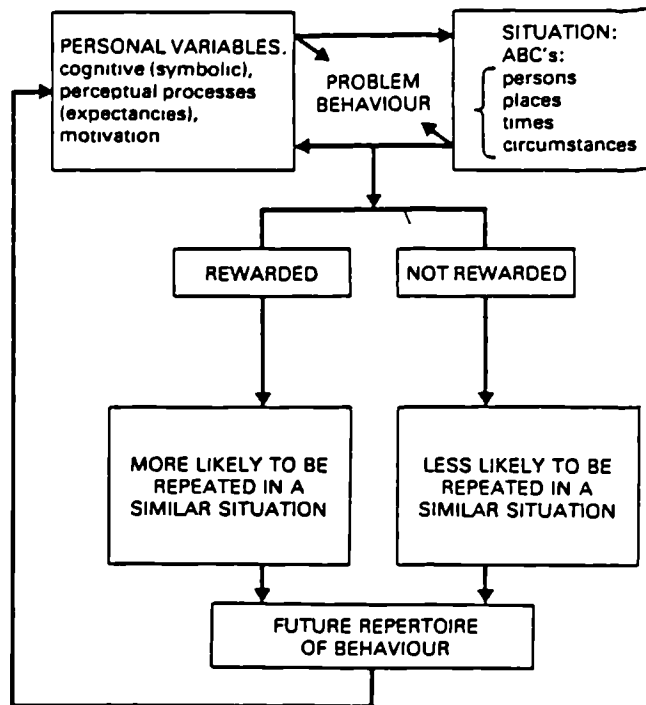
Figure 7.2   A feedback loo ɒ suggested by social

learning theory.

7.3 Teaching principles of social learning theory to parents

The difficulties faced by the parents of children with conduct and hyperactive disorders are often, by the time they reach the attention of a behaviourally-oriented therapist, of long-standing and well-entrenched. Hence, any strategy to try to help such families needs to be robust, able to offer some principles of management to guide exhausted parents in a range of tense situations, and respectful and supportive of them as people who have tried to do their best for their children.

There are several considerations which make social learning theory particularly relevant in such circumstances. The first is that its principles can be taught to parents, using an educational model as distinct from one of psychopathology; this not only offers them a framework for understanding at least some of the difficulties with which they are dealing, but also highlights that they are the people who can deal with them; that is, it highlights their potential for 'self-efficacy' (Bandura, 1977). The second is that it is then possible to enlist those parents as therapists via the 'triadic model' (Tharp and Wetzel, 1969). The third is that other strategies of supporting parents, such as counselling, can be used in conjunction with those stemming directly from the use of principles of social learning theory. The fourth is that social learning theory can be employed within a 'systems' framework.

These combined advantages make the use of this theory to help the parents of conduct disordered children extremely attractive; each will be considered in more detail below.

7.3.1 The use of an educational model of helping

One of the particular attractions of approaches grounded in social learning theory is that the therapist or trainer has a very much more positive and educational role than is the case in the traditional therapies. The approach of the psycho-dynamically oriented therapist seems to be that of uncovering pathology and promoting 'insight': it is essentially a treatment model. The approach of the behaviourally oriented therapist is primarily, in my view, <u>educational</u>.

This is so because the therapist's role is genuinely to teach. He or she may be used in other ways, but one of the therapist's objectives must surely be to convey an <u>under-standing</u> of some fundamental principles to parents, and to enable the parents to act upon that understanding.

This is far from being a 'cook-book' approach: the role of the educator is both testing and challenging, and has only recently begun to be explored in depth in the literature. (See Milne, 1986).

It is, however, a very attractive role: for there are great satisfactions in seeing one's teaching come to fruition. Parents cannot be expected to know, except intuitively, that to smack a naughty child may be perceived by him as a reward rather than as a punishment. To convey such theoretical ideas, to see parents struggle with them, try them out and then adapt the principles to new situations is a challenging, stimulating and rewarding experience for the educator.

The concept of 'self-efficacy' (Bandura, 1977) is readily linked with this educational model for helping parents. Bandura proposed that underpinning many successful efforts to bring about behaviour change, both in oneself and in others, such as young children, is the belief that one can master a given behaviour and carry out a necessary action. Bandura suggested that behavioural methods are helpful in that they increase people's 'efficacy expectations', so enabling them to believe that they can cope with difficult situations which previously seemed beyond them. He suggested that the best methods will be those that strengthen expectancies of personal efficacy (mastery) and which give the person the most direct success experiences.

The educational approach to helping parents via social learning theory, unlike that based upon psychopathology, takes account of the value of enhancing parents' belief in themselves, in their ability to manage their child and ultimately in their worth as a people and as parents. It does this by a range of methods: for example, by agreeing beforehand with the parents what are the desired objectives of the intervention and working clearly, but not in an unrealistically optimistic way, towards these. This approach offers a framework for intervention which is clear and ethical, and one which the parents themselves can evaluate.

It follows from this that far from being regarded by the therapist as people locked into pathology by some flawed relationship of past or present, parents are enlisted as co-therapists, colleagues and fellow workers on a shared task.

This orientation is again grounded in the concept of the educational role of the consultant or therapist. He or she is likely to develop good working relationships with the parents concerned when they feel respected, safe and able to take action in their own right. Status relationships are unlikely to be a major preoccupation of the therapist: people enlisted as co-workers are likely to respond to the implied equality involved.

O'Dell (1985), reviewing behavioural parent training, highlighted the 'golden rule' of Patterson (1973). Writing of the challenges posed to the parent by the implementation of new management strategies, O'Dell endorsed Patterson's conclusion:

> Programs which heavily involve the parent, seek his or her advice, and treat him or her more like a co-therapist rather than a patient may make the implementation phase more pleasant.

Such a formulation is indeed a long way from the pathology-focused model which held sway throughout the middle decades of this century, and which is indeed still widely practised.

7.3.2 The triadic model of service organisation and delivery

The extent of the problem, as we have seen, is great. On both sides of the Atlantic alone, there appear to be large numbers of families who are experiencing acute difficulties because of the disruption caused in them by young conduct-disordered children. There are families who can never take their child out, families whose three and four year olds have been 'expelled' from playgroups and nursery schools, and families where parents have parted because the behaviour of the child is intolerable to one or other partner.

To deal with such situations live-in therapists are needed. The people to be educated and trained are those who live with the child twenty four hours a day: the parents. This is the essence of the 'triadic model' advocated by Tharp and Wetzel (1969): see Figure 7.3.

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...............          ...............          ...............
.             .          .             .          .             .
. Consultant .  >        . Mediator  .   >        .  Target   .
...............          ...............          ...............
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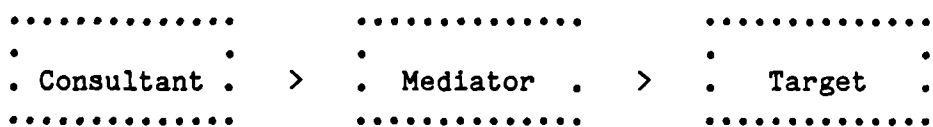
Figure 7.3 The consultative triad: Tharp and Wetzel, 1969

This model can be used with a range of approaches to intervention; in the study under discussion it was used as a model of both service organisation and delivery. In essence, the 'consultant' or 'researcher' sought to educate the 'mediators', the parents, in principles of social learning theory, who then drew thereon in practising new ways of managing the 'targets', their children. The detail of how this was done will be reported in subsequent chapters.

7.3.3 Counselling as a complementary means of helping parents

One of the many charges levelled against behavioural approaches is that it is 'mechanistic', ignoring the subtlety of human feeling and human interaction. Therapists are accused of imposing their own perceptions upon situations, and of thrusting behaviour modification programmes upon people whose real difficulties arise from flawed relationships of the past or present, and which are echoed by the child's misbehaviour.

While only the passing of time and the demonstrated observance of rigorous ethical guidelines are likely to change perceptions of behaviour therapists from 'manipulators' to 'educators', the case for the role's incorporating that of 'counsellor' should, perhaps, be made more strongly. As Patterson and colleagues (1974) found in their early studies, no less than one third of the families with whom they worked needed help other than a behavioural intervention; clearly a repertoire of skills is needed by parent educators.

Many parents are so worn down by years of coping with intractable problems in the management of their children that feelings towards the child are often complex. Such feelings, bitter and sometimes hostile, need ventilation, and self-reproach needs expression and clarification. Neglecting such areas may deprive the therapist of a vital opportunity of entering empathically into the experience of the parent, and may undermine all other work. The parent educator should draw on counselling skills as part of his or her repertoire. It

follows, however, that the implications of this for the design

of any research and for actual practice need recognition.

For it may well be that, in many situations, the therapist/

educator is the first person whose approach has been felt by

the parents as sufficiently understanding and positive for

her to feel <u>safe</u> in expressing her feelings about the child.

Many parents have already sought help from G.P.s, health

visitors or social workers about how to manage their child,

and have been disappointed. In such circumstances, the extent

of their frustration, their hopelessness or their fear of

harming the child is unlikely to have been fully acknowledged.

The reason for this is simple: people fear that if they

reveal such feelings, as well as revealing their inability to

cope with their child, he or she will be taken from them by

Departments of Social Service and placed in care. It should

be acknowledged that there are some grounds for their fears.

The therapist whose approach is based upon social learning,

therefore, can be almost certain that he or she will need to

draw upon traditional counselling approaches prior to embarking

upon the educational task. Parents, as soon as they begin to

trust the therapist, want to describe the years of difficulties

which they have experienced with their child, the humiliations

which they have undergone at his hands and the increasing

despair which they have felt. The effective therapist will make

sensitive use of listening and counselling skills to allow this

release; the need can be anticipated and incorporated into any

training programme. It follows that the design of studies and

analysis of data should take take account of this variable.

7.3.4 Social learning theory within a 'systems' framework

A model which is gaining increasing attention in a range of settings is the 'systems-behavioural' approach. (Douglas, 1981). This locates a child or person seeking help in the context of, for example, school and family, and in the social network of relationships in which the family is engaged at the present - and in which they have been engaged in the past.

Having acknowledged the impact upon the family of other people or relationships, such as grandparents, separated spouses or significant others, it is often then helpful to conceptualise relationships in terms of the insights offered by social learning theory, which takes into account all the these different and important interactions. This is the 'systems-behavioural' approach.

The relevance of this model to educating parents is readily apparent: for behaviourally-oriented therapists do not work solely in the context of the British nuclear family. They work in families with only one parent, in families where cohabitees come and go, and in families where people other than the natural parents care for the child. They are working increasingly with child-minders, (Brown, 1986), with ethnic-minority families (Trivedi, 1985), and with foster parents, Bunyan, (1986). Happily, social learning theory is robust enough to accommodate these different settings, but any therapist needs to be aware of, and to involve the cooperation many beyond the child's immediate care-takers. The 'systems-behavioural' approach is well suited to this.

7.4 <u>Features of social learning theory which present problems</u>

If the advantages of working with parents within this body of theory are so many, where are the difficulties? Two frequently arise: problems of generalisation, and problems of maintenance of change.

1 Problems of generalisation.

There are recognised difficulties in this area. While there is good evidence, (Patterson, 1975) that parents can frequently be trained and educated to achieve demonstrable change within between 6-8 sessions, it does not seem as though these behaviour changes generalise to other settings as a matter of course. This accords with the view that children learn to discriminate in a sophisticated way between the way he or she is handled by one person and by another. This suggests that a broad-focused 'systems-behavioural' approach, in which as many as possible of those who care for the child are taught similar and very systematic ways of handling him, may facilitate generalisation.

2 Problems of maintenance of change

Here too are very considerable challenges. Patterns of handling childen by physical means, smacking and hitting, may well have been 'over-learned' and may have been the means whereby the parents themselves were disciplined. It is all too easy for such habits to reassert themselves (Herbert, 1981) and for behavioural strategies to be seen as having 'failed'. Booster sessions, incorporated as a matter of routine into the 'educational package' can do much to maintain change.

Summary

This chapter has shown social learning theory to be located within the scientific tradition, and that its proponents are willing for it to be appraised against the 'hypothetico-deductive ideal'.

It has also described and discussed, albeit briefly, some of the key theoretical ideas involved, and what the research thereon indicates. Examples have helped to draw the links between theory and practice. The strengths of social learning theory as a means of education and training for severely demoralised parents have been explored, and these are shown to be multiple and to lend themselves to an ethical approach which engages parents as 'co-therapists' rather than as 'patients'.

It is apparent that despite the many advantages of this approach, and its strong research record, there are some continuing difficulties, and these are acknowledged. Various strategies for attempting to overcome these, including a 'systems-behavioural' approach, wait to be explored.

Chapter 8

Parent training: research pointers for service delivery

1   Criteria for evaluating the effectiveness of training

There are strong indications then that intervention in

conduct disorders and hyperactivity using the triadic model

can be successful. Yet it is appropriate to be cautious, and

to use words such as 'indications' rather than 'evidence':

the number of well-designed and carefully evaluated studies

is still few, and however great the need, it is fitting

to avoid making premature claims of effectiveness.

A useful strategy at such a juncture is to examine the

case for the effectiveness of behavioural parent training

against criteria for validating psychotherpeutic inter-

ventions in general. The following criteria were suggested

by Paul (1969) and, in a discussion of behavioural parent

training, are quoted by Gordon and Davidson (1981):

1) The client's distressing problem have changed

significantly in the desired direction

2) new problems have not been created

3) the improved behaviors have generalized and

become stable outside the treatment setting

4) the improved behaviors are maintained over

a subtantial time period.

It is appropriate to examine the conclusions reached by

Gordon and Davidson against these criteria.

1   There is significant change in the desired direction

Gordon and Davidson (1981) highlighted the review of
24 studies by Atkeson and Forehand (1978) of the effects of
behavioural parent training as measured by first, parent-
completed questionnaires, second, parent-recorded frequency of
child-behaviour problems, and third, the frequency of child-
behaviour problems as measured by independent observers. In
13 studies with all three outcome measures, there was a 69%
agreement across all three that there was improvement. Other
measures, though not so convergent, were in the same direction.
On the basis of this and other evidence, the authors concluded
that overall, there is a sufficient body of evidence that
behavioural parent training meets the first criterion for
validation as a psychotherapeutic approach.

2   New problems have not been created

This refers to the issue of 'symptom substitution', the
position taken by some psychodynamically-oriented therapists
that in eliminating the 'symptom' of conduct disorder, the
'real problem' is driven underground, as it were, only to
reappear in another guise. Concerning this, Gordon and
Davidson concluded that negative effects due to treatment
appeared to be rare in terms of the immediate behavior of
the child. They concluded that there is insufficient evidence
to arrive at a clear view about the effects on other family
members.

3   There is generalization beyond the treatment setting

As discussed earlier, this is an area of weakness in behavioural parent training. Forehand and Atkeson (1977) in a review of this field, found a lack of rigour in studies which investigated clinic-to-home transfer and because of such difficulties, viewed the evidence as inconclusive. They also reported some evidence (e.g. Wahler, 1975), who found a a slight increase of difficult behaviour at school when behavioural approaches were implemented at home. Similar findings concerning the failure of generalisation to occur across non-targetted behaviours led Gordon and Davidson to conclude that the literature suggests that transfer of treatment effects should be explicitly planned, rather than assumed (Stokes and Baer, 1977).

4   Improved behaviours are maintained over substantial time

Here the evidence is varied, in that the maintenance rate for 'discrete' disorders, such as enuresis is broadly positive, but that for more complex disorders is more mixed. Gordon and Davidson noted the work of Patterson and Fleischman (1979), who reviewed eight major research projects upon parent training for out-of-control young people. They found that those employing experienced therapists, as against student therapists, and those which enabled families to have 'booster' sessions showed effects which maintained at follow-up periods of up to 18 months.

The present study took place with the issues discussed above in mind. It combined both the features of a research programme and those of service delivery. Its origins lay in the work of the Child Treatment Research Unit (Herbert, 1978), at Leicester University, to which children with conduct and other disorders have been referred for many years. The Unit has now developed into the Centre for Behavioural Work with Families, and it was the author's own experience and interest which led to her concern for preventive work.

The importance of 'delivering a service' is accepted by the members of the above Centre; while the people who work within its framework are all researchers, they are also all 'grass-roots practitioners'; referrals come from G.P.s, social workers, health visitors and other community-based professionals. Thus those referred are mainstream clients, and by no means a selected research population: if anything, they are probably a population with greater difficulties than most in that other professionals have asked for help.

The idea developed is of offering behaviourally-oriented training to the parents of young children, preferably of pre-school age, and of adding both to theoretical knowledge and to the training of practitioners. For while in some circles there may be continuirg hostility to behaviourally-based work, it seems highly likely that, as its merits are recognised, so demand for personnel trained in behavioural principles will increase. We need to prepare to meet that demand.

There are a great many quesions to be asked concerning
this field of work, for as Horton (1982) has indicated,
research has afforded few answers concerning the most
effective amd efficient methods of training parents to use
behavioural principles to modify children's conduct disorders.
This statement could be seen as the starting point for the
present study.

Several separate issues were addressed in planning the
research; these included:

1   What is the content of effective behavioural parent
training?

2   What is the structure of such training? for example, the
sequencing?

3   What are effective methods of such training? for example,
in groups, individually, by correspondence?

Thereafter, having drawn upon the literature, a specific
hypothesis was devised in relation to each question; these
are set out explicitly in the next Section.

First, however, it is fitting to consider some of the
research evidence which already exists concerning the issues
listed above.

2   <u>The content of effective behavioural parent training</u>

A number of issues which the researchers have addressed
can be examined here; the research concerning three will be
considered: first, the choice of concepts to be taught;

second, whether to teach general behavioural principles or
strategies for managing specific situations; and, third, the
choice of teaching strategies, such as role play.

1   The choice of concepts to be taught

The evidence in this area suggests that while most
trainers concur on a number of core concepts and skills to be
taught, different trainers emphasise different principles.
Gordon and Davidson (1981) noted that some trainers open
their series of sessions with parents with teaching on the
clarification and enforcement of household rules. Patterson
(1975) however, starts with the idea of 'social reinforcers':
smiles and terms of endearment to children, praise and hugs.

Gordon and Davidson acknowledge these differences, but have
helpfully gone on to report what they have found to be the
common core of behavioural parent training courses; namely:

Session I   Learning to define and measure behavior ...

Session II   Graphing behaviors ...

Session III   Using consequences to change behavior

Session IV   How to apply reinforcement to behavior

Session V   Using good teaching procedures ..

Session VI   Response punishment: How to decrease
              undesired behavior ...

Session VII   What to do regarding specific behaviors ...

Session VIII How to maintain your responsive parent
              image.

2   To teach general behavioural principles or specific

strategies?

Horton (1982) has conducted an extensive comparison of

instructional components of behavioral parent training, and

considered in particular the general principles versus

specific focus issue. All the studies were evaluated by

multiple outcome measures.

Concerning broad focus (general principles) approaches,

by Christiansen, Johnson, Phillips and Glasgow (1980) and by

Sirbu, Cotler and Jason (1980), Horton concluded that parents

seemed able to learn principles associated with broad focus

training approaches simply through reading a manual. It

seemed that individual and group training facilitated the

actual implementation of the skills.

Concerning specific focus work, Horton concluded that the

evidence was far from clear. While Nay (1975) did find such

training for administering 'Time out' effective, O'Dell,

Mahoney, Horton and Turner (1979) found no effect of such

specific focus training.

Horton concluded his review, which again highlighted the

unreliability of new behaviours generalising from one setting

to another, by stating that the question of whether parents

benefit from understanding the underlying principles, or

whether they gain most from just being taught the mechanics

of the approach, is still unanswered. My own study confirms

this ambiguity.

3   The choice of teaching strategies: use of role play, etc.

Gordon and Davidson (1981) have reported an extensive

range of studies, (e.g. Gardner, 1972;   Nay, 1975;   Flanagan,

Adams, and Forehand, 1979) concerning different combin-

ations of e.g. lecture, video-taped programmes, modelling,

and tested by a further range of strategies, including paper

and pencil tests, parent reports, and observation in the home.

Again, results were variable, but Gordon and Davidson

summarised the evidence by reporting that the research on the

relative efficacy of the various training methods is incon-

clusive. It seemed to suggest that modelling is particularly

effective, even in comparison with behavioural rehearsal with

feedback.

They concluded that the most efficacious approach to

training may be the method developed by Patterson et al (1975),

who provided parents with progressively more direct inter-

vention until success is achieved. They apparently began

with verbal methods such as texts, verbal rehearsal, and

then continued by means of frequent phone calls;   only

one fifth of the parents required additional training.

Those who did received home visits in which modelling and

behavioral rehearsal were offered.

My own experimental design drew on information from this

model.

3   <u>The structure of effective behavioural parent training</u>

As one would expect, the range of issues addressed under this broad issue is extensive; O'Dell (1985) has considered a number of fields of research upon how the content selected by individual researchers is organised for teaching parents. He has addressed such issues as the number of sessions offered, the organization of the curriculum, and the setting(s) for teaching and learning. Research related to each topic will be examined below.

1   The number and length of the sessions offered.

These appear to vary considerably, according to whether parents were seen individually or in a group. The variety of different structures used has been very great; for example those parents who met with Rose (1974) attended between seven and ten sessions of one and half hours, which included formal instructuion, modelling and role play by all concerned.

Those who worked with Lehrer, Gordon and Leiblum (1973), however, attended ten 2 hour sessions in which the first hour was devoted to instruction attended by parents from ten families, and the second hour was devoted to small group dis-cussion with two or three sets of parents and a trainer. By contrast, Rinn, Vernon and Wise (1975) reported a training programme which met their criteria for success in that over 1,100 parents attended five, once weekly, two-hour sessions at a community mental health centre. Groups ranged in size from 16 to 90 with a mean of 41!

Other trainers have used yet other formats. While there appear to be no clear clinical guidelines, Gordon and Davidson (1981) have commented favourably upon the model developed by Clark-Hall (1978). Within this, parents met for ten weekly, two-hour group sessions. Instructional information was presented for no more than 20 to 30 minutes. Parents then divided into small groups of four to six with a group leader, where they planned an individualised home behaviour change project. Weekly homework assignments involved record-keeping and implementing the various techniques through lectures and role-playing. The model whereby parents met first in large, and then in small, groups with a parent-trainer allocated to each of the small groups, was found to be both efficient and effective.

Again, many of the above pointers were represented in the design which was devised for the present study, although it was decided to forego the size of the study described above in favour of numbers which could be managed by a *single* trainer, the author. In addition, the focus was to be on the delivery of a service, as distinct from a pure research study - although in many ways the concepts of service and research support and enhance each other rather than being in contradistinction.

2   The organization of the curriculum

Parents do not bring their difficulties in neatly ordered

packages: they have priorities, particularly if they are

short of sleep! Researchers have not yet been able to make

clear recommendations upon the balance to be struck in order

to take the whole group forward together, and the need to meet

individual emergencies.

While some of the programmed texts written for parents

are helpful, they may be daunting for people unaccustomed to

turning to books for information. Thus, the well-organized

book by Patterson (1975), Families: Applications of Social

Learning Theory to Family Life, is attractive to parents who

are at ease with books, but its language and organisation is,

in the author's view, unfamiliar to many of the parents who

typically seek help. It was for this reason that it was

decided to write and devise relevant material, and to prepare

it in small booklet form.

A further organizational issue which has been researched is

that of 'overlearning'. As discussed above, there seems to be

agreement, Patterson et al (1975) and O'Dell et al (1975), that

'booster' training sessions, both within the setting of the

individual family, and for group settings, are a valuable

component of successful training. This component was thus

built into the experimental design, as will be described

below.

3   The settings for teaching and learning

O'Dell (1985) has summarised the research in this area. He
has noted that two major ways in which parent training settings
differ are first, whether the training takes place in the clinic
or the home and second, whether or not the child is actively
present and involved during the training.

He concluded that there was little doubt that successful
parent training can take place in both the clinic and the home
setting. He also noted that most studies reported the training
as having taken place in a clinic setting, without the child.

These issues proved to be of considerable importance in our
own study. As will be described later, the design required one
group of parents to attend shared sessions in the University,
and to bring their children if this suited their convenience.
Other parents were only in telephone contact. These two
factors, the group meeting being held at the University, and
and the researcher's not requiring to see the child, in some
instances were clearly felt as threatening by the parents.
The University has alarming images for some people, and coming
to it cannot have been easy; while our lack of insistence upon
seeing the child was interpreted by some parents as an assump-
tion on our part that it was they, and not the child, who were
'to blame' for the difficulties being experienced.

Both these issues needed very careful handling; I have not
found these topics explored anywhere in the literature.

8.3 Effective models of behavioural parent training: group individual, correspondence?

This topic has, appropriately, received much research attention, and the literature has been reviewed by O'Dell (1985). Two particular aspects will be examined here: the merits of group as against individualised training, and the possibility of successful training by correspondence or 'bibliotherapy'.

1   Group or individualised sessions

O'Dell has reported a number of studies which indicate that not only do group training methods give better outcomes than a no-treatment control group (Rinn, Vernon and Wise, 1975; Walter and Gilmore, 1973) but group training methods are found to be broadly as effective as individualised approaches, using a range of outcome measures.

While stressing that 'group training' can mean anything from working with just two parents to working with twenty, and that there are innumerable variations in group structure, O'Dell concluded that the evidence almost all suggested that group training was as effective as individualised training.

For example, he quoted the study by Kovitz (1976): this researcher treated nine families in a group format, five in an individualised format, while six families served as untreated controls. Both groups received six weeks of training, a range of outcome measures showed equal improvement for groups who received treatment, by comparison with the controls.

Pevsner (1982) in a comparison of group versus individual training also found comparable outcomes as measured by level of satisfaction among group members, but those who attended the group sessions were more likely to reduce problem behaviour and were successful in so doing sooner.

Brightman, Clark and Ambrose (1982) worked with sixty six families having handicapped children, seeking to enable parents teach the children self-help skills and manage behaviour problems. The outcomes for three models of training were compared: group format, individualised format and waiting list control. All children improved on some measures, but both group and individually trained families did better than controls on other measures, and these improvements were equally maintained at six months' follow-up.

In view of this convergence concerning the equal merit of group and individualised training, O'Dell considered that there is a strong case to be made for group training, because it is so much more economical in terms of trainer time.

This factor was one of those borne in mind when designing our own study.

2   Training by correspondence or 'bibliotherapy'

O'Dell (1979) and Christensen, Johnson, Phillips and Glasgow (1980) have both examined whether training by correspondence or 'minimal contact bibliotherapy' can be effective.

O'Dell worked with 60 sets of parents and compared six means of instruction in administering 'Time out': use of a manual only; videotaped modelling; videotaped modelling and brief checking by the researcher; individual modelling and rehearsal; brief individual modelling to control for attention; and no-treatment control. Attitudinal tests showed no differences between the groups, but videotaped modelling was significantly superior to the manual-only condition.

The second major study to include a manual-only condition, that by Christiansen, Johnson, Phillips and Glasgow (1980), randomly allocated 36 families to 3 conditions: group sessions, individual sessions and 'minimal contact bibliotherapy'. There were a range of outcome measures. All groups reported equal global rates of change, but the group and individualised treatment conditions produced greater change on the more objective measures. This study confirmed earlier findings that the group setting and the individual setting were equally effective, but the group took half the time.

These factors were considered when designing the research which is being reported here.

Summary

Those seeking to provide behavioural parent training have an abundance of other trainers' research to turn to. What is not so readily available are clear guidelines emerging from the research concerning content, structure and models of training.

While different trainers inevitably have different starting
points there appears to be some convergence of opinion around a
few issues: first, many approaches are increasingly offering
a common core of training content; second, modelling of
appropriate behaviours for parents is a very helpful way of
teaching them; and third, since many studies have shown little
difference in the outcome measures achieved by individualised
training and by group training, there is a strong case to be
made for group training in that it is more cost-effective in
terms of trainer's time.

Areas where there does not, as yet, appear to be any clear
convergence of opinion are whether it is more helpful to try
to teach broad strategies, based upon behavioural *concepts*, or
to teach specific focus strategies, and also the usefulness
or otherwise of 'bibliotherapy' - or training via a *manual*
with telephone back-up.

To some extent, it was possible to base our study upon
the convergent recommendations in the second paragraph, above,
while some of the uncertainties became focal points for
research in the experimental design which we devised.

SECTION 2   THE RESEARCH STUDY

Chapter 9

The study

This chapter describes the study, its aims and design, the
participants, the materials used and the procedure employed.

9.1   The aims of the study

The main aims of the present study were: to investigate
the effectiveness of teaching behavioural principles to the
parents of difficult pre-school children; to compare and contrast
outcomes using three different methods of instruction and a
control group; and to compare and contrast outcomes at post-
intervention and at follow-up.

Following a pilot study, participants in the main study
were randomly allocated to four groups: three groups who
received active intervention and a control group. Members of
the control group were subsequently incorporated into active
intervention groups in the second cohort of the study. The
experimental design is shown in brief outline on page 117, and
is described in more detail in pages 116 - 120.

The intervention, which was conceptualised as an educational
process rather than as 'treatment' for pathology, was offered on
a once-weekly basis over eight weeks, with follow-up meetings at
two weeks and three months. The weekly sessions were supplemented
by eight booklets, distributed one per week to all participants.
(See materials in pocket in the back cover).

A number of predictions were made:

At post-intervention

1 There will be a significant effect of intervention in the experimental population as a whole.

2 There will be a significant effect of intervention within each group of the experimental population.

3 There will be significant differences between the four groups reflecting the different methods of intervention.

At follow-up

4 There will be a significant effect of intervention in the experimental population as a whole.

5 There will be a significant effect of intervention within each group of the experimental population who experienced active intervention.

6 There will be significant differences in the effect of intervention evident between the three groups of the experimental population who experienced active intervention.

9.2 The design of the study

The study was designed not only as an experimental investigation, but also as an action/service research project. An initial pilot study, involving 11 families, was carried out in 1983. The author then worked with all the families who, after publicity concerning the research, referred themselves or were referred during the calendar year, 1984. These families numbered 37, and since there were two sets of twins, their children numbered 39.

These 37 families were randomly allocated to one of four groups in order of receipt of their application:

1 Group method

2 Home visit method

3 Telephone method

4 Waiting list control

Thus the first application to be received was allocated to the group method, the second to the home visit method, the third to the telephone method and so on. Only three applications were allocated 'out of order' and these were because the mothers had, for example, several young children and could not undertake travelling by bus to join the group, or because in one instance a family who would have fallen into the 'telephone' group did not have a telephone in the house. In such circumstances, it seemed ethical to adjust to the needs of the parents rather than to observe over-scrupulously the requirements of the experimental design.

1983   ┌─────────────────────────┐
             │ Pilot study applicants │
             │ (Home visit & telephone) │
             └─────────────────────────┘

Evaluation

1984   ┌─────────────────────────┐
             │ Main study: │
             │ pool of applicants │
             └─────────────────────────┘

Randomly assigned to experimental/control groups

Group method 1	Home visit method 1	Telephone method 1	Wait-list control 1

(Spring cohort, 1984)

┌─────────────────────────┐
│ Continuing pool │
│ of applicants │
└─────────────────────────┘

Randomly assigned to experimental groups

Group method 2	Home visit method 2	Telephone method 2

(Autumn cohort, 1984)

1984-5   (6 months post-intervention follow-up: independent
winter   (evaluation of Spring cohort participants.

1985-6   (6-9 months post-intervention follow-up: inde-
winter   (pendent evaluation of Autumn cohort participants
            (in an Intermediate study.
            (12 - 18 months follow-up: independent evaluation
            (of all Main Study participants.

Figure 9.1   Experimental design used to evaluate methods

of teaching behavioural principles to parents

The study was designed so that the predictions were tested and data analysed in the ways shown below. (For details of scoring, see Section 9.4.2.1).

Prediction	How tested
At post intervention	
1 There will be a measurable effect of intervention in the experimental population as a whole.	1 By comparison of pre- and post-intervention scores of the experimental population as a whole using the following measures:
	Application Score (AP)
	Tarler-Benlolo questionnaire (TB)
	Home situation questionnaire (HS)
	Personal stress score (PS)
	Negative behaviour score (NEG)
	Positive behaviour score (POS)
	Goals achieved score (GL)

Data were analysed by a related 't' test.

2 There will be a measurable effect of intervention within each group of the experimental population	2 By comparison of pre- and post-intervention scores within the groups of the experimental population - using the following measures:
group method	Application Score (AP)
home visit method	Tarler-Benlolo questionnaire (TB)
telephone method	Home situation Questionnaire (HS)
waiting list control	Personal stress score (PS)

Data were analysed by related 't' test.

Prediction	How tested

At post intervention

3 There will be
measurable differences
between the four
groups reflecting
the different methods
of intervention.

3 By comparison of pre- and post-
intervention scores of the groups
of the experimental population who
experienced different methods of
intervention or no intervention -
using the following measures:

    Application sheet score (AS)

    Tarler-Benlolo questionnaire (TB)

    Home situation questionnaire (HS)

    Personal stress score (PS)

Data were analysed by ANOVA and by the Scheffe procedure of
the multiple range test.

At follow-up

4 There will be a
measurable effect of
intervention in the
experimental population
as a whole.

4 By comparison of pre-intervention
and follow-up scores of the experi-
mental population as a whole, using
the following measures:

    Application sheet score (AS)

    Tarler-Benlolo questionnaire (TB)

    Home situation Questionnaire (HS)

    Personal stress score (PS)

    Goals achieved score (GL)

Data were analysed by related 't' test.

Prediction	How tested

At follow-up

5 There will be a measurable effect of intervention within each group of the experimental population who experienced active intervention.

   group method

   home visit method

   telephone method

5 By comparison of pre-intervention and follow-up scores within the three groups of the experimental population who received active intervention, using the following measures:

   Application Sheet score (AS)

   Tarler-Benlolo questionnaire (TB)

   Home Situation questionnaire (HS)

   Personal Stress questionnaire (HS)

   Goals achieved score (GL)

Data were analysed by a related 't' test.

6 There will be measurable differences in the effect of intervention evident between the three groups of the experimental population who experienced active intervention

   group method

   home visit method

   telephone method

6 By comparison of pre-intervention and follow-up scores between the groups of the experimental population who received active intervention - using the following measures:

   Application Sheet score (AS)

   Tarler-Benlolo questionnaire (TB)

   Home Situation questionnaire (HS)

   Personal stress score (PS)

   Goals achieved score (GL)

Data were analysed by ANOVA.

9.3 The participants in the study

9.3.1 The pilot study

The pilot study participants consisted of 5 families who approached or were referred to the author in the immediate vicinity of Leicester, together with 6 families who responded to a letter by the author in the Hyperactive Children's Support Group Newsletter. The former families were visited in their own homes by the author: the latter were in touch with the author by telephone and correspondence.

No attempt was made, however, to compare the outcomes associated with these two different methods of trying to help the parents: rather, each family was seen as an N=1 unit, and independent assessors reported the families as individual case studies.

In the home visit group 3 of the children were boys and 2 were girls: in the telephone group all 6 children were boys. In the home visit group all the families were two parent families: in the telephone group 5 of the 6 families had two parents present: one was a one parent family.

Details concerning the children from these two sets of families are given in Appendix 3.1.

9.3.2 The main study

Following the distribution of publicity to the Health and Social Services Departments within Leicester and Leicestershire and the publishing of a letter by the author in the local

paper, the Leicester Mercury [*] enquiries were received from 50 families in the calendar year 1984. Information [*] upon the study was sent to all enquirers and sets of completed pre-intervention measures were received from 37 families. (Two families referrred twins, but the random allocation was made on the basis of families, not children; thus, while an attempt was made to help with both children, only the data concerning the first-named twin was included in the analysis).

11 of the original 37 families were initially allocated to the waiting list while the others participated in the intervention: this gave 48 potential sets of data. Two families left the Spring cohort of the Group method early in the sequence; 5 families dropped out during the period in which they were on the waiting list - giving a total of 41 sets of data.

To summarise, at the post-intervention stage there were 41 sets of pre-intervention and post-intervention data available, although fully complete data were available for only 39. At follow-up, it was possible only to obtain data upon 23 children from the original experimental population, and fully complete data was obtained from only 20.

Summary data concerning the numbers of participants and other details are given in Table 9.1.

[*] Copies of these materials are available from the author.

9.3.3 Summary data concerning enquiries, participants and those lost to training during the study

Summary information upon the numbers of enquiries and final participants is shown in Table 9.1.

Responses to letter in the local paper	23
Referred via G.P., health visitor, paediatrician	27
Total sent pre-intervention material	50
Total who returned pre-intervention tests	37
Total who began series of meetings	37
Total lost to training after beginning	7
No. of separate families from whom data was available for computer analysis	30
Full sets of data available for computer analysis	
At pre-intervention	41
(11 children featured twice through being on waiting list before active interventions)	
At post-intervention	39
At follow-up	20

Table 9.1 Numbers of enquiries, referrals, participants and those lost to training over the course of the study.

9.4 <u>Materials used</u>

The following questionnaires and materials were used. Copies, where not included in the Appendices, are available from the author.

9.4.1 <u>The pilot study</u>

9.4.1.1 <u>Preliminary materials</u>

1 <u>A letter inviting applications</u> from the members of the Hyperactive Children's Support Group.

2 <u>An introductory letter</u>: This gave preliminary details about the nature of the study.

3 <u>A form of application</u>: This sought basic information about the child concerned.

4 <u>A statement of expectations and needs concerning the course</u>.

5 <u>A statement of intent to work together</u>: This was a contract form, already signed by Professor Herbert and the author, to be completed by the parent.

6 <u>The O'Dell, Tarler-Benlolo and Flynn Questionnaire</u>: This is a multiple choice questionnaire, with 50 questions concerning schedules of reinforcement, contingency management and the theoretical underpinnings of behavioural approaches with children.

7 <u>The Rotter Locus of Control Schedule</u>. This is a standardised questionnaire designed to test the extent of a person's subjective feeling of being in control of his or her life.

9.4.1.2 <u>Materials used at the intervention stage</u>

A series of booklets entitled <u>Managing Difficult Children</u>

were written by the author. Individual titles were:

1 <u>Getting Started: Pinpointing, Observing and

Recording.</u>

2 <u>The A.B.C. Sequence</u>

3 <u>More About C for Consequences.</u>

4 <u>More About Positive and Negative Reinforcement</u>

5 <u>A Little About 'A for Antecedents'</u>

6 <u>Dealing with Specific Difficulties</u>

7 <u>Extending the Approach to Other Behaviours</u>

8 <u>Maintaining the Improvement</u>

The booklets are included in Appendices. Data collection sheets

were also sent out with the booklets.

9.4.1.3 <u>Materials used in evaluating the pilot study</u>

There were two independent evaluators of the pilot

study: each worked with one group, home visit or telephone.

Accordingly, they devised and distributed:

1 <u>Individualised questionnaires</u>: These concerned

areas of perceived success or failure in using behavioral

principles in managing difficult children, demographic data

and participants' satisfaction or otherwise with their service

offered via the pilot study. Copies are available from the

author.

These independent evaluators also distributed:

2 <u>Rotter's Locus of Control Schedule</u> (see above).

9.4.2 The main study

9.4.2.1 Materials used, and how scoring was conducted

1 A form of application This sought information about the child concerned. It allowed parents to tick 8 boxes showing whether a problem 'Doesn't apply (score 0), 'Applies somewhat' (score 1) or 'Certainly applies' (score 2). Parents could add 2 'others'. Highest possible score: 20. (Appendix 1.1).

2 An introductory letter: This gave details (Appendix 1.2).

3 A statement of intent to work together: This was a contract form, already signed by Professor Herbert and the author, to be completed by the parent. (Appendix 1.3)

4 The Home Situations Questionnaire: This seeks details of situations in which children misbehave, similar to that devised by Barkley (1981). Parents score each situation on a 0-9 scale. Highest possible score: 135. (Appendix 1.4)

5 Personal Stress Score Sheet: This enables respondents to score their subjective level of stress on a 0-10 scale for seven days. Highest possible score: 70. (Appendix 1.5)

6 Sample Personal Stress Score Sheet: (Appendix 1.6).

7 The O'Dell, Tarler-Benlolo and Flynn Questionnaire: This is a multiple choice questionnaire, in two different formats, A. and B., each with 10 questions, concerning e.g. schedules of reinforcement, contingency management and the theoretical underpinnings of behavioural approaches with children. (Appendices 1.7 and 1.8)

8 Statement of goals: This allows individualised goals for each child to be developed. Each goal starts from 0, and is scored weekly by the parent -5 to +5; e.g. severe deterioration (-5); goal achieved (+5). (Appendix 1.11).

9.4.2.2 Materials used in the intervention stage

The same series of booklets by the author which were used in the pilot study were again used. To recapitulate, the titles were:

1   Getting Started: Pinpointing, Observation and Recording.

2   The A.B.C. Sequence

3   More About C for Consequences.

4   More About Positive and Negative Reinforcement

5   A Little About 'A for Antecedents'

6   Dealing with Specific Difficulties

7   Extending the Approach to Other Behaviours

8   Maintaining the Improvement

In the light of the feedback from the pilot study, the data collection sheet was re-designed and distributed weekly. (Appendix 1.9).

9.4.2.3 Materials used at the intermediate evaluation

There were 3 independent evaluators at the half-way point of the main study: i.e. following the Spring cohort. Each worked with one set of parents who had experienced a given method of training: group method, home visit or telephone method. Accordingly, they devised:

Individualised questionnaires: These sought feedback on the participants' experience in the study, demographic data and suggestions for improvement of the service.

9.4.2.4 Materials used at follow-up evaluation

There were 3 further independent evaluators at the final

stage of the main study. They followed up both the Spring

and Autumn cohorts together, and readministered all the instru-

ments which were initially administered. Each worked with

those parents who had experienced the same form of training:

group method, home visit or telephone method.

To recapitulate, the instruments involved were:

1   The application form. (Appendix 1.1)

2   Home Situations Questionnaire (Appendix 1.4)

3   Personal Stress Score Sheet (Appendix 1.5)

4   Tarler-Benlolo Questionnaire (Appendix 1.8)

5   Individualised questionnaires. These sought feedback

on the participants' experience in the study, demographic

data and information concerning the extent to which the goal

concerning child compliance, which had been agreed between

parents and the author, had been met - in the parents' view.

9.5 Procedure during the study

9.5.1 The pilot study

The overall study was designed so that, prior to the

author's working with all the applicants for help in managing

their children during one calendar year, she would gain

experience and revive skills which had not been actively

practised for some time by working with a small number of

local families. She also encountered the publications of the Hyperactive Children's Support Group, a small but growing group of parents linked by a Newsletter, and gained further evidence from this Group that all over the country there are large numbers of families seeking help for the behaviour difficulties of their young children. (The Group has a primary interest in the contribution of dietary factors to children's hyperactivity, but it seems to be open to other theoretical formulations as well.)

The pool of families who formed the pilot study group whom the author visited in their homes were either referred to Professor Martin Herbert at the Centre for Behavioural Work with Families at the Department of Psychology, University of Leicester, or direct to the author. Following the latter's writing to the Newsletter of the Hyperactive Children's Support Group, explaining the work she was undertaking, she received applications from 6 families willing to participate. These two sets of families were the focus of the pilot study.

Having gathered basic details from each of the two sets of families, the author began a series of 8 weekly contacts: by personal visit for the Home visit group, and by letter or telephone for the Telephone method group. Concurrently, she sent out in each of the eight weeks, one of the series of eight booklets which she had written.

The procedure during the pilot study did not follow the design as closely as had been intended; this was partly due to the fact that the author had to repolish her research skills. Nevertheless, by the time the independent evaluators, two third year students in the University Department of Psychology undergraduate course, came to do their work, it was possible for them to follow up 5 children in the home visit group and 6 children in the telephone group. Both students conducted independent evaluations within groups, rather than attempting a comparison between groups.

9.5.1.1 Changes made in the main study following the pilot

As a result of the author's experiences in the pilot study and of the feedback from the independent evaluators, a number of changes were made in planning the main study. These were:

1   It was confirmed that the 'course' should consist of:

      8 weekly sessions, 1 per week

      1 follow-up 2 weeks after the final session

      1 follow-up 3 months after the final session

2   A new data collection sheet was designed, enabling the parents to collect instances of 'good' as well as 'bad' behaviour.

3   The practice of agreeing with the parent at the outset specific goals concerning how a child should be behaving by the end of the course was confirmed.

4   The principle was adopted that people in the Telephone method needed ready access to a personal telephone.

9.5.2 The main study

9.5.2.1 The random allocation

Once applications had been received, they were randomly

allocated to the four methods of intervention by being 'dealt

out', like a pack of cards, to the four methods: Group, Home

visit, Telephone and Waiting list control. When allocating

applications, the following principles were observed:

1 They were allocated by date of receipt at the University.

2 Parents in the Telephone method needed access to a

personal phone.

3 Where early drop-outs occurred, the 'deal' went on as

before; the author bore in mind that groups should be of

roughly equal size, that parents had to be in a position

to take part in the method to which they were allocated (e.g.

group method members could not be in full time employment) and

application scores should be broadly comparable between groups.

4 It was ethical to give special consideration to families

with two or more small children and who had to come to the

University by bus; home visits were offered in these cases.

Observing these principles led in all to only three

families being allocated in ways which were not strictly in

accordance with the 'dealing out a pack of cards' model.

Work begin with the Home visit and Telephone methods in

March, 1984, but insufficient applications were received in

the early months of the year to allow the Group method to start

before May, 1984. Those families who found themselves randomly

allocated to the Waiting list control group were informed of

this, commiserated with and assured of active help eventually.

9.5.2.2 The format of a typical session

Over time, it was found that the following format was typical of sessions:

Group method	mins	Home visit method and Telephone method	mins
Greetings etc.	5	Greetings, etc	5
Discussion of previous week, for each family	60	Discussion of previous week	25
Collecting data from previous week	5	Collecting data from previous week	5
Informal talk over cup of tea.	20	Informal talk over cup of tea.	10
Introduction of the focus for next week: distributing booklet.	30	Introduction of the focus for next week: distributing booklet	15
	120		60

Table 9.2 Characteristic formats for the Group method and the Home visit and Telephone methods of working

9.5.2.3 The sequence of the sessions

The following sequence of sessions took place for all methods, suitably adapted to particular settings.

Session	Programme
Preliminary	Introductions.
	Preliminary ventilation of feelings.
	Clarification of ideas about course.

1	Introductions, if necessary.
	Author's description of own difficulties
	Further ventilation.
	Cup of tea and informal discussion.
	Introduction to concept of focusing
	upon behaviour.
	Giving out data collection sheets,
	for negative and positive behaviours.
	Giving out Booklet 1.

2	Greetings
	Discussion of successes & difficulties
	of the previous week for families.
	Collecting data from previous week.
	Cup of tea and informal discussion.
	Pinpointing specific behavioural goals
	for each child; writing them down.
	Theoretical points: A.B.C analysis and
	possibility of deteriorating behaviour.
	Giving out Booklet 2.

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3   Greetings

Discussion of successes and difficulties

of the previous week.

Collecting data from previous week.

Cup of tea and informal discussion.

Theoretical points: ignoring behaviour

time out

Giving out Booklet 3.

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4   Greetings

Discussion of successes & difficulties

of the previous week for families.

Collecting data from previous week.

Cup of tea and informal discussion.

Theoretical points: positive reinforcers

negative reinforcers

social reinforcers

Giving out Booklet 4.

----

5   Greetings

Discussion of successes & difficulties

of the previous week.

Collecting data from previous week.

Cup of tea and informal discussion.

Theoretical points: antecedents

Giving out Booklet 5.

---

6   Greetings

Discussion of successes and difficulties

of the previous week.

Collecting data from previous week.

Cup of tea and informal discussion.

Theoretical points: sleeping problems

         clear messages

Giving out Booklet 6.

---

7   Greetings

Discussion of successes & difficulties

of the previous week for families.

Collecting data from previous week.

Cup of tea and informal discussion.

Theoretical points: *record keeping*

        extending approach

Giving out Booklet 7.

---

8   Greetings

Discussion of successes & difficulties

of the previous week.

Collecting data from previous week.

Cup of tea and informal discussion.

Theoretical points: backsliding

        maintaining skills

Giving out Booklet 8.

Booster 1   Greetings

(after 2 weeks)   Discussion of successes and difficulties

                       of the previous fortnight.

                       Cup of tea and informal discussion.

                       Theoretical points: positives for parent

                                              maintaining gains

----

Booster 2   Greetings

(after 3 months)   Discussion of successes & difficulties

                       of the previous months.

                       Cup of tea and informal discussion.

                       Theoretical points: achievements

                                              maintaining gains

                       Contacting author in emergencies.

Table 9.3 Programmes of the eight weekly meetings and of
the two subsequent boosters

9.5.3 The two follow-ups

Both the Spring and Autumn cohorts of the main study
were followed up independently. The Spring cohort was followed
up by three undergraduate psychology students who each worked
with one of the method groups. This follow-up took place in
the Autumn of 1984 and Winter of 1984-5. Each evaluator
worked with her group independently, and did not seek to draw
between-group comparisons.

For the evaluation of the Autumn group, the author
adopted the experimental design of a paper which came to hand
at that time: Brown and Lewinsohn (1984). These authors
reported their work concerning 'A psychoeducational approach
to the treatment of depression: comparison of group,
individual and minimal contact procedures'. The parallels
with the design of the author's own work were many, and she
therefore asked the three independent evaluators of the Autumn
cohort, (who were three further undergraduate psychology
students working in the Autumn of 1985 and Winter of 1985-6),
to gather data concerning the whole experimental population
and to readmininster the original schedules - thus giving
primary data for the whole group. This was done, although
the three evaluators also went on to make particular studies
of the Autumn cohort, again focussing upon within-group,
rather than between-group, outcomes.

9.5.4 Features common to all methods of intervention

The author served as the educator in all three methods of intervention. She sought, as far as was humanly possible, to offer the same sequence of instruction, and the same programme to all groups. For example, she focussed primarily upon the children's behaviour disorders; if, however, as sometimes happened, parents sought to speak of other aspects of their experience which were distressing them, and which were probably affecting their reactions to the children, the author adopted a listening/counselling role, trying to enable the parent to gain some relief by speaking of personal distress, but avoiding dwelling upon this area. As soon as was appropriate, parents were gently brought back to the issue of the management of their child. (It was the author's impression that parents responded very positively to this approach).

All participants were given, or sent, one per week, copies of the 8 booklets written by the author, and the data collection sheets. These echoed the approach taught in the course, namely the skill of child-management, to be learned in an educational setting, and practised in the everyday world: suggestions of pathology were avoided.

In all cases an effort was made to involve fathers or partners: two fathers came to a group meeting apiece, but in all cases it was the mothers with whom the author worked for the most part. Support from fathers for the mothers of the children was actively welcomed and encouraged.

Information upon, for example, the collection of data
was made as uniform as possible, and the same illustrations
were used to clarify concepts. Concerning goal-setting,
all parents were asked to accept and work towards the same
primary goal - namely, that the child concerned would comply
with an instruction within one minute of receiving it. Other
goals were negotiated on an individualised basis, linked
with the problems noted on the parents' Application forms.

9.5.5 Features of the Group method of intervention

While the author made every attempt to keep the
procedures common to both the Spring and Autumn groups, and
to make the programmes within the groups comparable, the
very different natures of the two cohorts caused some
discrepancies. Thus, the random allocation so fell out
that many of the parents in the Group method in the Spring
cohort were single parents living on a council estate some
distance from the University. When the author visited them,
to tell them that they were in the Group method, they were
visibly anxious about coming to the remote university, and
what might happen there. It was therefore necessary to bring
each parent individually to the university beforehand to see
the room where we would meet and the children's playroom.
This approach did not seem necessary for the Autumn cohort
who fell into the Group intervention method; they were more
confident women, able to make their own ways to the meeting.

Mutual supportiveness seemed to develop readily, but
particularly with the Autumn cohort. Thus attendance by the
Spring cohort was 52.3%, and of the Autumn cohort was 98.4%.

9.5.6 Features of the Home visit method

The author followed the same approach with those parents who found themslves allocated to the Home visit method as with the Group method. As the three methods of intervention were being offered concurrently, this did not seem to cause major difficulties. The Home visit sessions tended to be somewhat less tightly focused than in either of the other methods, because there was less manifest pressure upon time. Thus parents may therefore have felt more relaxed, and able to discuss more personal issues, partly because there was more time, and because there was greater confidentiality. The main focus, however, remained firmly upon the children's behaviour.

9.5.7 Features of the Telephone method

The author did not meet and still has not met those parents who found themselves allocated to the Telephone method – apart from a five minutes encounter with one mother who happened to be at a meeting attended by the author, and another mother who, having previously experienced a cot death, found the Telephone method unhelpful, and who was therefore visited at home. With these exceptions, all contacts were by telephone, based on ideas in the booklets sent by the author.

Phone calls took place in the evenings, and the author attempted to be encouraging, supportive and to draw attention to the mother's achievements in implementing new strategies in managing her child. After initial puzzlement, and hilarity concerning goal-setting, mothers swiftly learned the techniques of gathering and reporting data week by week. These telephone conversations were, for the most part, very enjoyable.

9.6. <u>Assessments</u>

9.6.1 <u>The timing of assessments</u>

As indicated, participants and their children were assessed on a number of measures. For greater clarity, the timing of these measures is set out in Table 9.4.

Pre-intervention	Post-intervention	Follow-up
Group method		
Application score	Application score	Application score
Home situations	Home situations	Home situations
Personal stress	Personal stress	Personal stress
Tarler-Benlolo	Tarler-Benlolo	Tarler-Benlolo
Negative count	Negative count	
Positive count	Positive count	
Goal: compliance	Goal: compliance	Goal: compliance
Home visit method		
Application score	Application score	Application score
Home situations	Home situations	Home situations
Stress score	Stress score	Stress score
Tarler-Benlolo	Tarler-Benlolo	Tarler-Benlolo
Negative count	Negative count	
Positive count	Positive count	
Goal: compliance	Goal: compliance	Goal: compliance
Telephone method		
Application score	Application score	Application score
Home situations	Home situations	Home situations
Stress score	Stress score	Stress score
Tarler Benlolo	Tarler Benlolo	Tarler Benlolo
Negative count	Negative count	
Positive count	Positive count	
Goal: compliance	Goal: compliance	Goal: compliance
Waiting list		
Application score	Application score	
Situations score	Situations score	
Stress score	Stress score	
Tarler Benlolo	Tarler Benlolo	

Table 9.4 <u>Measures at pre-intervention, post-intervention</u> <u>and follow-up.</u>

9.7 Data gathering and statistical analysis

9.7.1 Data gathering and scoring

Data was gathered via a number of measures (See Table 9.4). Scoring on the measures is described in Section 9.4.2.1. Full raw data are supplied in Appendices 3.2 to 3.5 inclusive.

9.7.2 Statistical analysis

Predictions 1, 2, 4 and 5 were tested by related 't' tests. It was recognised that there are some limitations to this test, as it can contribute to more significant results than other, more conservative, tests; it is also recognised that, if the study were to be replicated, analysis by ANOVA (e.g. 4 * 3 [Treatment * Time] mixed design) might yield results which would be of interest; despite these reservations, however, several reasons underpinned the choice of the 't' test.

The first was that the same subjects were tested in each condition, thus meeting a main requirement for the related 't' test. The second was that the test reflected closely the very precise nature of the predictions made about the effects of the intervention. The third was that it was felt that examining the periods under investigation separately (pre-intervention/ post-intervention and pre-intervention/follow-up) offered a clearer analysis of the effects of the intervention at the key stages of the study; the 't' test lent itself to this clearer analysis.

A further decision, made because of the restrictions associated with multiple 't' testing, was to report results for two-tailed tests but at the .02 level of significance rather than at the .05 level. This set a more rigorous level for significance.

Data associated with predictions 3 and 6 were analysed by ANOVA, 4 * 2 [Treatment * Time] mixed design, and 3 * 2 [Treatment * Time] mixed design, respectively. The data associated with prediction 3, since it indicated a significantly different effect of intervention between the groups at post-intervention, was also analysed by the Multiple Range test; this produces a statistic which can be applied to any pair of means in the ANOVA. This data was further analysed by the Scheffe procedure of the Multiple Range test, which yields a very conservative statistic.

Data associated with prediction 6 were analysed only by ANOVA, as described above, since it did not yield a significant effect of intervention between the groups.

Chapter 10

The results of the study

10.1   The pilot study

10.1.1 The independent evaluation

As described, the pilot study was independently

evaluated by two undergraduate psychology students some 3-4

months after the conclusion of the intervention. Details of

the children concerned and results from the evaluations are

briefly summarised below.

10.1.2 Data concerning the children

Basic data upon these children in shown in Table 10.1.

	No.	Male	Female	Mean Age: Yrs.	SD	One par ent fam.	Two par ent fam.
Home visit method	5	3	2	3.2	1.1	0	5
Telephone method	6	6	0	3.4	0.63	1	5

Table 10.1   Summary details of children in the pilot study

10.1.2.1 Home visit method

The evaluator devised a questionnaire, available from

the author, which explored both issues concerning the main

research study and additional ones in which the evaluator was

interested. Concerning the former, he reported:

'A number of questions in the interview produced

results that were highly significant. There were

significant improvements in the mothers' perception

of the overall situation with the child .... and

also a large improvement in the feeling of being

able to cope with the child when in a social situation..

Related to this, the mothers also felt more confident

about leaving the child in charge of other caretakers

but this was not such a highly significant result ...

There was also a unanimous willingness to have taken

part in the University research project and in the

feeling that the procedures put forward by the

therapist were easy to understand....

The scores also indicated significant improvements

in the mothers' feelings towards the child ... and in

the rest of the families feelings towards the child ..

The mothers also reported on spending a significantly

greater amount of time playing or talking with their

child .... and also found it easier to praise their

child since the therapy.

Perhaps one of the most important results was

that the mothers felt that they would be significantly

more able to cope with any new or recurring problems

as a result of the therapy .... Also the mothers

were confident that the changes in the child's

behaviour would continue .....

10.1.2.2 <u>Telephone method</u>

The evaluator of this group devised two questionnaires,

available from the author, one of which she sent through

the post to the families concerned, and one of which she used

as the basis for a structured interview conducted by

telephone. The evaluation took placed 3-4 months after the

conclusion of the pilot study.

The evaluator analysed various sections of the data

using:

(1) The single sample t-test

(2) T-test: the direct difference method for correlated

means.

(3) Spearman rho

(4) Inspection of the questionnaire.

The evaluator posed a number of hypotheses, and examined

the evidence in respect of each. Her findings are summarised

below:

A   <u>The mothers' perception of improvement in</u>

<u>target behaviours</u>

All mothers agreed that their child's behaviour had

been successfully changed resulting from the use of

behavioural methods, although clearly the degree of

change varied among the 6 children. Target behaviours

were statistically significantly changed in the group

as a whole; however, individual analysis of each

child showed that 3 did not reach significance

level ...

B   The mothers' knowledge of behavioural principles

....An analysis (using Spearman rho) was peformed to

see if the 'degree' of improvement in a mother's

knowledge of behavioural principles related to the

perceived improvement in target behaviours. This gave

a rho value of -0.257 which was non-significant. The

final scores on Knowledge of Behavioural Principles

Questionnaire were also correlated with perceived

improvement in target behaviours. This gave a ....

value of 0.0286 but also was clearly non-significant.

C   Results of scalable questions on the oral

questionnaire.

T-tests were performed on those questions in the

telephone interview which were scalable, thereby

comparing a single sample mean to a hypothetical

population mean. The null hypothesis was taken as

being: that without therapy, the child would have

remained at the same stage as prior to therapy ...

The analysis reveals that the two most important

factors influenced by behavioural intervention were

firstly the mothers' perception of control and

secondly the increase in praising. Another significant

factor to emerge was the father's more positive

attitude towards the child, although the children's

attitude towards their fathers was not significant.

All mothers agreed that the situation at present

had improved and this reached the 0.02 level of

significance as did the child's relationship with

other children...

In her discussion of her results, this evaluator noted

the weaknesses of the design of the pilot study: the lack

of clear baselines prior to intervention, the short follow-up

period, and the fact that the design of the pilot study had

not, alongside the two experimental groups, included a

control group. This meant that she had to work with a

single group of parents. Nevertheless, while acknowledging

the limitations of the study, she drew upon the evidence

available from the separate parents' reports, and wrote

that the pilot study suggested that,

... the procedures were moderately successful in

producing changes in the behaviours which they

were designed to alter.

10.2 Tests for comparability of main study groups at pre-intervention

As has been described, participants were randomly allocated to the four method groups. Pre-intervention scores on four measures for all four groups, and on two additional measures for the three active intervention groups, were obtained. Data were analysed by ANOVA and by the Scheffé procedure of the Multiple Range test, which is a more conservative form of that test. Results are shown in Table 10.2.

Analysis of variance

Variable (all by treatment)	Source	DF	Sum of squares	Mean squares	F ratio	F prob.	
Application score	Between groups	3	13.45	4.48	0.463	0.7099	NS
(AP1)	Within groups	37	358.44	9.68		.	
	Total	40	371.90				

Scheffé procedure of the Multiple Range Test

Analysis of the results by this procedure indicated that no two groups were significantly different on this measure at the 0.050 level.

Analysis of variance: Home situations

Variable (by treatment)	Source	DF	Sum of squares	Mean squares	F ratio	F prob.	
Home situations	Between groups	3	2918.4811	972.827	1.7433	0.1750	NS
(HS1)	Within groups	37	20647.5189	558.041			
	Total	40	23566.0000				

Scheffé procedure of the Multiple Range Test

Analysis of the results by this procedure indicated that no two groups were significantly different on this measure at the 0.050 level.

Analysis of variance: Personal stress

Variable (by treatment)	Source	DF	Sum of squares	Mean squares	F ratio	F prob.	
Personal stress	Between groups	3	474.06	158.02	1.227	0.3142	NS
(PS1)	Within groups	35	4505.01	128.71			
	Total	38	4979.0700				

Scheffé procedure of the Multiple Range Test

Analysis of the results by this procedure indicated that no two groups were significantly different on this measure at the 0.050 level.

Analysis of variance

Variable (all by treatment)	Source	DF	Sum of squares	Mean squares	F ratio	F prob.	
Tarler Benlolo	Between groups	3	23.39	7.79	2.374	0.0858	NS
(TB1)	Within groups	37	121.48	3.28			
	Total	40	144.87				

Scheffé procedure of the Multiple Range Test

Analysis of the results by this procedure indicated that no

two groups were significantly different on this measure at

the 0.050 level.

Analysis of variance

Variable (all by treatment)	Source	DF	Sum of squares	Mean squares	F ratio	F prob.	
Negative count	Between groups	2	1842.60	921.30	0.57	0.57	NS
(Neg1)	Within groups	27	43638.19	1616.22			
	Total	29	45480.80				

Scheffé procedure of the Multiple Range Test

Analysis of the results by this procedure indicated that no

two groups were significantly different on this measure at

the 0.050 level.

<u>Analysis of variance</u>

Variable (all by treatment)	Source	DF	Sum of squares	Mean squares	F ratio	F prob.	
Positive count	Between groups	2	221.09	110.54	0.38	0.68	NS
(Pos 1)	Within groups	26	7549.11	290.35			
	Total	28	7770.20				

<u>Scheffé procedure of the Multiple Range Test</u>

Analysis of the results by this procedure indicated that no

two groups were significantly different on this measure at

the 0.050 level.

Table 10.2 <u>Analyses of data from six measures, used to</u>

<u>test groups for comparability at pre-intervention</u>

<u>Summary and Conclusion</u>

None of the above analyses indicated any statistical

differences at the 0.05 level between any of the four groups

on any of the measures taken. The random allocation can

thus be said to have generated groups which were comparable

on all measures at pre-intervention.

10.3 The main study: intermediate stage

10.3.1 The independent evaluation

The main study was independently evaluated at two stages. An intermediate evaluation took place for the Spring cohort and a final evaluation took place for both Spring and Autumn cohorts together. This section concerns the intermediate stage, i.e. the Spring cohort; three third year undergraduate psychology students associated themselves each with one of the three methods respectively, and followed the families up 5-6 months after the groups concluded.

10.3.2 Data concerning the children

Basic data upon these children in shown in Table 10.3.

	No.	Male	Female	Mean Age: Yrs.	SD	One parent fam.	Two parent fam.
Group method	1	1	0	1.8	0.00	0	1
Home visit method	5	3	2	3.3	0.80	1	4
Telephone method	3	3	0	1.9	0.73	1	2

Table 10.3 Summary details of children in the intermediate study

10.3.2.1 Group method

This group orginally consisted of five mothers. Two dropped out during the first four weeks of the study, and although three carried on for the greater part of the eight weeks' course, only one of these responded to the letter from the evaluator explaining about the plans for follow-up.

Of the other two mothers who had persisted, one was
telephoned and it was learned that the mother was depressed
and did not want further contact with the course. The
evaluator was discouraged from contacting the other mother
as information was received that the father was unhappy about
his wife's attending the course.

The one family who responded to the evaluator's
enquiry reported considerable satisfaction with the course.
As with all participants, a number of goals had been agreed
between the parents and the author; parents were asked to
judge, for each of the three goals which had been negotiated,
how serious the behaviour had been pre-intervention, and for
comparison, how far the goal for each behaviour had been met:
(-5 extremely serious; +5 goal achieved). (See Appendix 1.11).
The two sets of data, pre-intervention and follow-up, were
then analysed using a t-test for correlated means. This gave
a value of t = 15.588 at 2 df which is significant at 0.05
probability level for a two-tailed test.

Additional information from these parents indicated
the severity of the initial situation concerning the little
boy, L.A., and his parents. The evaluator reported:

The mother did not enjoy L... as a child; she "often
felt like strangling him" and "she could understand
why people battered children..."

When asked what would have happened if they had not
been in touch with Carole, they both laughed, and
then more solemnly said "we'd definitely be split up"
and the mother was sure that she would not have been
able to cope.

10.3.2.2 The home visit method

It was possible for the independent evaluator to reach

and obtain follow-up data from four of the five parents in

this group. She asked each mother to give information which

focused upon the difficulties mentioned at the outset of the

intervention, and first, to 'describe them again (as they were

before the course) on a scale of -5 to 5', and second, 'to

indicate how serious the difficulties are now you have

completed the course' - also on a -5 to 5 scale.

The evaluator reported that 't' tests were performed on the

parent rating of behaviour pre and post intervention, for

each individual client. Details of the statistical analysis

are shown in Table 10.4.

	Mean difference pre/post rating -5 to +5, across target behaviours	t value	DF	Level of significance (two-tailed)
Individuals				
Client 1	7.50	17.516*	5	p <0.001
Client 2a)	9.00	9.000	1	N.S.
) twins				
Client 2b)	9.50	19.000	1	p <0.05
Client 3	7.17	6.467*	5	p <0.01
Client 4	7.60	13.147*	5	p <0.001

* Student's figures corrected.

Table 10.4 Individual results of the ratings of behaviour

changes reported to evaluator: intermediate stage of evaluation

In addition, the evaluator collected qualitative data from the parents. Brief extracts from these, taken from the individual case studies which she compiled are given below. These draw upon the mothers' comments and indicate an encouraging picture.

Client 1 (L.S.)

It was interesting that in Mrs. S's recollection of the target behaviours, she did not mention the original problem of L ....'s constant attention seeking and pestering. Yet originally this was a problem that had made her afraid of what she would do. This may be taken as an indication of not only L ....'s improved behaviour but also Mrs. S's changed attitude .... Her relationship with L ...., the control, the praising, the time spent and the actual physical contact initiated by her have improved markedly (as had her relationship with her husband).

Client 2a and 2b: MB and LB (twins)

Obviously having twins manifesting the same kind of problem behaviours causes the parents even more anxiety ....

An indication of the success of the course could be
seen when, during the I's visit, the children ate
their tea with Mr. B. "watching over" them - a period
of time that was entirely peaceful and seemingly
enjoyed by both children. Mrs. B. now cannot even
imagine how she coped with the children before the
therapy - "they're almost perfect now".

Client 3 - R.N.

The control that Mrs. M. now has would appear to have
altered her attitude towards R.... There is still
room for improvement in his behaviour (they received
an extra booster session after the end of the course)
but since Mrs. M. did not expect all problems to be
solved the way she approaches and copes with them now
will be different and in her eyes the course still
"worked".

The reduction of Mrs. M.'s feelings of frustration may
relate not only to the course but also to her working
full-time since she did not enjoy being in the house
every day. Mrs. M. considered the course was a success
and hoped that as R ... grew older all the problems
would be solved and the situation made even better.

Client 4: (L.W.)

Almost all L...'s problems are very much improved,

although he is still fairly disruptive and restless,

seeking more attention than his share. Mrs. W.

felt that L... was better all round. The mother is

definitely more in control, she spends more time

playing with L ....   He is easier to praise and

plays with his sister much more, making life more

pleasant for Mrs. W. In fact relationships through-

out the family have improved. The stress and strain

has obviously eased. Another form of encouragement

from other sides is that L's teachers, grandparents

and many of Mrs. W's friends have noted that he is

a much better behaved child ...

The position now is not quite as good as when the

course had just finished but as Mrs. W. put it,

"I can cope with him now. I've even given up smoking!"

From the above extracts based upon the qualititative

data gathered by the independent evaluator, it appears that

there were grounds for considerable satisfaction. Some

corrections of the student's statistical analysis confirmed

that both the quantitative and the qualitative data pointed

in the same direction: that parents in this group, together

with their children, had benefitted from the implementation

of principles of social learning theory.

10.3.2.3 The telephone method

The independent evaluator was able to reach three sets sets of parents in this group and obtain follow-up material from them, both quantitative and qualitative. The former was obtained in the same way as that described in 10.3.2.2; it was analysed by a related 't' test. Results are shown in Table 10.5.

Individuals	Mean difference pre/post rating -5 to +5, across target behaviours	t value	DoF	Level of significance
Client 1	5.67	3.335	5	p<0.05
Client 2	3.2	2.0	4	N.S.
Client 3	3.75	1.508	3	N.S.

Table 10.5 Individual results of ratings of severity of behaviour problems, pre-intervention and at follow-up, reported to evaluator

There seems to be something of a discrepancy between results from the statistical analysis and those suggested by the parents' responses to a questionnaire, gathered via a structured interview. In order to convey something of this discrepancy, some extracts of the independent evaluator's report, based upon the parents' statements, are given below.

RESULTS

..... Each mother rated her stress, as measured in a small test compiled by the therapist, as being lower after the training course than before. In one case, it went from a score of 45 before the course to 9.5 afterwards.

All the mothers, in reply to a question in the oral questionnaire, said that the situation with the child was either "better" or "much better". The M. who said "(very) much better" was the only mother whose perception of improvement in target behaviours was significant.

All Ms found it "much easier" to praise their child after they had completed the training course, and they all felt that their sons were more affectionate towards them than before - the Cs were more likely to initiate physical contact in the form of hugs as opposed to clinging onto M. all the time.

Case History 1 (S.T.)

.... Before S..'s mother (M) had started on the training course, she had not used any particular strategy to control S..'s behaviours but she had made a conscious effort to take S.. out of the house.... Like many mothers of hyperactive children M. had very intense feelings towards her son, to such an extent in fact that she felt she could not live with S.. any more...

M's perception of improvement in S..'s target behaviours was significant (t=5.67, df =5, p<0.05, two-tailed). However, S..'s sleeping problem which had improved dramatically at the beginning of the course has since deteriorated slightly and he wakes up from three to six times a night now.

One factor which is important in this case is S..'s age. He was only fourteen months old at the start of the course and is now only two years old. His mother said, "He really is a different character - happier and much less frustrated". But it is unclear how much of this improvement is due to his maturing and how much is due to the training course. The relationship between mother and child is very much better ....

On the whole, the training course was beneficial to S.. and his parents and his mother did mention that had they not actively participated in the training course S..'s behaviours would not have improved as much as they have.

Case History 2 (A.B)

.... It became clear from the follow-up study that the target behaviours had all improved at varying degrees, with A .... sleeping in his bed more and his eating more different foods.

M. described her relationship with her son as
"better" and attributes this partly to A...'s age.
He is older and more proficient at communicating.
M. did feel more 'in control' than before, but she
did find it difficult if there were visitors in
the house. She also finds it much easier to
praise A..... now, and the amount of physical
contact that A.... initiates was "much more" now...
Friends, and women at the playgroup which A....
attends have noticed an improvement in him -
he has quietened down and is more content...
Although the target behaviours did not improve
significantly, the relationship between mother
and son did improve considerably and A ... is a
lot more affectionate, *so although it is unclear*
how much of the improvements are due to the
training course itself, both A.... and his mother
did benefit from the course.

Case History 3: M.J and A.J (twins)
.... Both M... and A ... were boisterous and
difficult to manage from an early age. From
information gained in the oral questionnaire, it
became clear that the twins' behaviour had more
effect on their parents' relationship than the
other two hyperactive children mentioned in this
study. The parents of the two boys had separated

when the boys were about two years old and M.

attributed the separation partly to the twins'

behaviour.

M appeared to have extremely little confidence

in herself as a mother.... She did not have

any particular strategy for coping with the

boys' behaviour and added that she felt quite ill

and was not coping at all.

She also had two daughters eight and five and has

looked after all four children on her own since

she and her husband separated.... It became

clear from the questionnaire that the twins'

behaviours had improved during the course, but

three months after, when answering the question-

naires, the improvement had slipped to some extent...

In the other cases, the mothers said that other

people noticed an improvement in their children's

behaviours, but the mother of the twins said that

people had noticed the change in her rather than

in her children, in particular she was more relaxed.

10.3.3 Summary comments on the intermediate evaluation

The three independent evaluations of outcomes at this

intermediate stage of the study thus found mixed evidence,

in statistical terms, of the success of the work but more

encouraging evidence of its beneficial effect in

qualitative terms.

The design of the study had many weaknesses which
the independent evaluators rightly pinpointed as contributing
to the uncertainty over outcomes. A means of measuring the
mothers' perceptions of their control of their children by
means other than the Rotter (1977) Locus of control schedule
should have been devised at the pre-intervention stage; the
lack of such a measure at pre-intervention made it very
difficult to assess this crucial outcome in a meaningful way.

It was impossible to control for the factors in those
improvements in the children's behaviour which could be
attributed to their maturing rather than to the course. (An
effort to do so was made by the author, but the data from this
study was not available to the independent evaluators: it is
included in the account of the main study).

All three methods appeared to have made contributions to
the improvements noted in the children's behaviour, with the
exception of J.C., whose mother participated in the group
method. All the other mothers seemed to have gained something
from their participation, and to be ready to participate in
a similar event again.

To conclude this section, it appears that while none of
the independent evaluations of outcomes at this 3-6 months'
stage was particularly cheering, there was sufficient evidence
of some children and some parents having gained in some way
to make further research worthwhile. It was not possible at
this stage to compare outcomes between groups, but the
evaluation at the end of the second and final stage of the
study was so designed as to incorporate this comparison.

10.4   The main study: the final stage (Winter, 1985-6)

10.4.1 The independent evaluation

At this stage, an overall evaluation of the whole of

the main study was undertaken. Three undergraduate psychology

students each worked independently with all the traceable

families within each method: group, home visit and telephone.

Although they did collect data concerning the Autumn cohort,

their main focus was upon the total experimental population.

The main instruments of assessment were again administered to

all participants, and the extent to which parents considered

that the goal of having the child comply with parental

instructions had been achieved was also measured.

10.4.2 Data concerning the children

The data below relates to the four groups of children

for whom data was available; data upon waiting list control

children features twice since these children, having taken

part in that condition, were reallocated to active inter-

vention conditions.

Method	No.	Male	Female	Mean age	SD	One parent family	Two parent family
Group	8	8	0	3.4	0 80	5	3
Home visit	10	8	2	3.2	0.75	9	1
Telephone	12	10	2	2.4	0.90	7	5
Waiting list	11	8	3	3.4	0.62	7	4

Table 10.6 Summary details of all families participating

in the main study

10.4.3 Overview of data from main measures in all methods

Method	Pre-intervention (N=41)		Post-intervention (N=39)		12-18 months follow-up (N=20/23)	
	M	SD	M	SD	M	SD
Group (n=8)						
Application score	12.50	3.16	6.00	2.67	8.20	5.26
Situations score	62.37	30.23	25.25	14.03	24.40	18.28
Stress score	29.90	12.19	20.06	11.48	13.75	13.37
Tarler-Benlolo	3.50	2.20	7.13	2.03	6.50	1.91
Negative count	65.87	32.94	28.75	22.82		
Positive count	34.37	16.35	57.87	18.86		
Goal: compliance	0.00	0.00	3.33	1.21	2.80	1.30
Home visit (n=10)						
Application score	13.20	2.93	5.50	4.45	7.60	4.94
Situations score	51.00	17.72	15.70	14.46	26.10	25.30
Stress score	38.30	9.48	15.50	9.98	26.70	22.03
Tarler Benlolo	2.20	1.68	4.40	2.41	4.60	1.89
Negative count	74.40	49.95	42.70	35.87		
Positive count	35.20	19.75	73.70	57.62		
Goal: compliance	0.00	0.00	3.50	1.43	1.80	3.76
Telephone (n=12)						
Application score	12.33	3.49	5.25	4.30	9.12	3.94
Situations score	41.50	25.02	20.75	23.17	24.00	11.22
Stress score	38.58	7.68	22.75	12.92	30.17	15.69
Tarler Benlolo	4.25	1.91	6.41	2.60	4.12	1.35
Negative count	56.08	35.14	32.83	18.43		
Positive count	29.18	14.71	37.72	14.48		
Goal: compliance	0.00	0.00	3.09	1.45	2.42	1.27
Waiting list (n=11)						
Application score	13.72	2.76	11.81	4.16		
Situations score	60.45	21.19	60.27	30.37		
Stress score *	37.10	15.81	34.33	16.35		
Tarler Benlolo	3.18	1.47	4.00	1.67		

* Based on 9 sets of data only.

Table 10.7 Overview of data on main measures for all families: means and standard deviations of scores at pre-intervention, post-intervention, and 12-18 months follow-up.

10.4.4 <u>Summary of mean scores from main measures in all methods</u>

	Pre-intervention (N=41)		Post-intervention (N=39)		12-18 months follow-up (N=20-23)	
	M	SD	M	SD	M	SD
All methods						
Application score	12.95	3.04	7.22	4.81	8.26	4.52
Situations score	53.00	24.27	31.00	28.14	25.00	19.07
Stress score	36.84	11.45	23.05	14.11	25.15	18.96
Tarler-Benlolo	3.31	1.90	5.39	2.50	4.77	1.85
Negative count	64.80	39.60	35.03	26.21		
Positive count	32.69	16.65	56.73	38.17		
Goal: compliance	0.00	0.00	3.29	1.35	2.23	2.65

Table 10.8 <u>Summary of mean scores on main measures for all methods</u>

10.4.5 <u>Tests associated with predictions</u>

10.4.5.1 <u>Prediction 1</u>

(Pre- and post-intervention measurement will show a significant effect of intervention in the experimental population as a whole. The null hypothesis was that there will be no significant effect.)

Pre- and post-intervention scores were analysed by means of a t-test: results are shown in Table 10.9 .

Measure	Level of significance (two tailed)	
Application score (AP)	p < 0.0001	***
Tarler-Benlolo (TB)	p < 0.0001	***
Home Situations (HS)	p < 0.0001	***
Personal Stress (PS)	p < 0.0001	***
Negative Behaviour (NEG)	p < 0.0001	***
Positive Behaviour (POS)	p < 0.001	***
Goal Achieved (GL)	p < 0.0001	***

Table 10.9 <u>Pre- and post-intervention results for whole group</u>

Thus, considering the experimental population as a whole, statistical analysis suggested highly significant differences pre- and post-intervention, on all measures. Since there was no support for the null hypothesis the prediction was accepted

N.B. *, **, *** <u>indicate significant effect at 0.05, 0.01</u>

<u>and 0.001 probability levels respectively. N.S. indicates no</u>

<u>significant effect.</u>

10.4.5.2 Prediction 2

(Pre and post-intervention measurement will show a

significant effect of intervention within each group of the

experimental population. The null hypothesis was that there

will be no such significant effect).

Group method

Pre- and post-intervention scores were analysed by means

of a t-test. Results are shown in Table 10.10.

Measure	Level of significance (two tailed)	
Application score (AP)	p < 0.0001	***
Tarler-Benlolo (TB)	p < 0.010	*
Home Situations (HS)	p < 0.008	**
Personal Stress (PS)	p < 0.069	NS
Negative Behaviour (NEG)	p < 0.045	*
Positive Behaviour (POS)	p < 0.015	*
Goal Achieved (GL)	p < 0.001	***

Table 10.10 Pre and post-intervention results for the group

method

Thus, as regards the group method, statistical analysis

suggested significant differences, pre- and post-intervention,

on a range of measures, with the exception of Personal Stress.

Since this was the only support for the null hypothesis, it

could be rejected and the accuracy of the prediction accepted,

albeit with some reservation.

Home visit method

Pre- and post-intervention scores were analysed by means
of a t-test: results are shown in Table 10.11.

Measure	Level of significance (two-tailed)	
Application score (AP)	$p < 0.001$	***
Tarler-Benlolo (TB)	$p < 0.071$	NS
Home Situations	$p < 0.0001$	***
Personal Stress (PS)	$p < 0.0001$	***
Negative Behaviour	$p < 0.040$	*
Positive Behaviour	$p < 0.031$	*
Goal Achieved	$p < 0.0001$	***

Table 10.11 Pre- and post-intervention results for the
home visit method

Thus, as regards the Home visit method, statistical
analysis suggested significant or very highly significant
differences, pre- and post-intervention, on a range of
measures. The Tarler-Benlolo did not reach significance.
With this exception, there was evidence to reject the null
hypothesis; the accuracy of the prediction could thus be
accepted, albeit with a slight reservation.

Telephone method

Pre- and post-intervention scores were analysed by means
of a t-test: results are shown in Table 10.12.

Measure	Level of significance (two tailed)	
Application score (AP)	$p < 0.001$	***
Tarler-Benlolo (TB)	$p < 0.004$	**
Home Situation (HS)	$p < 0.009$	**
Personal Stress (PS)	$p < 0.001$	***
Negative Behaviour (NEG)	$p < 0.020$	*
Positive Behaviour (POS)	$p < 0.059$	NS
Goal Achieved (GL)	$p < 0.0001$	***

Table 10.12 Pre and post-intervention results for the
telephone method

Thus, as regards the Telephone method, statistical
analysis suggested significant differences, pre- and post-
intervention, on a range of measures. Differences on
Positive Behaviour did not reach significance. With this
exception, however, there was no support for the null hypo-
thesis, and the prediction could thus be accepted, albeit with
a slight reservation.

Waiting list control

Pre- and post-intervention scores were analysed by means of a t-test. Results are shown in Table 10.13.

Measure	Level of significance (two tailed)	
Application score (AP)	p < 0.190	NS
Tarler-Benlolo (TB)	p < 0.152	NS
Home Situations	p < 0.980	NS
Personal Stress (PS)	p < 0.312	NS

Table 10.1 3 Pre and post-waiting period results for the waiting list control group

Thus, as regards the Waiting list control, statistical analysis did not suggest significant differences, pre- and post-waiting period, on four measures. The null hypothesis therefore could not be rejected, and it was concluded that being on the Waiting list did not lead to spontaneous remission of difficult behaviour.

10.4.5.3 Tests associated with prediction 3

(Post intervention will show a significant difference between the four groups reflecting the different methods of intervention. The null hypothesis was that there will be no significant difference.)

Post-intervention scores were analysed by ANOVA and by the Scheffe procedure of the Multiple Range test. This is a more conservative form of that test. Results are shown in Table 10.14.

Analysis of variance

Variable (all by treatment)	Source	DF	Sum of squares	Mean squares	F ratio	F prob.	
Application score	Between groups	3	320.63	106.87	6.52	.0012	**
(AP2)	Within groups	37	606.38	16.38			
	Total	40	927.02				
Tarler Benlolo	Between groups	3	70.65	23.55	4.81	.0063	**
(TB2)	Within groups	37	181.10	4.89			
	Total	40	251.75				

Variable (all by treatment)	Source	DF	Sum of squares	Mean squares	F ratio	F prob.	
Home situations	Between groups	3	13291.97	4430.66	8.912	.0001	***
(HS2)	Within groups	37	18394.03	497.14			
	Total	40	31686.00				
Personal stress	Between groups	3	1784.86	594.95	3.605	.0228	*
(PS2)	Within groups	35	5777.04	165.06			
	Total	38	7561.90				
Negative behaviour	Between groups	2	961.70	480.85	.684	.5129	NS
(NEG2)	Within groups	27	18969.27	702.57			
	Total	29	19930.97				
Positive behaviour	Between groups	2	5553.23	2776.61	2.043	.1492	NS
(POS2)	Within groups	27	36692.64	1358.99			
	Total	29	42245.87				
Goal achieved	Between groups	2	.88	.44	.228	.7980	NS
(G12)	Within groups	22	46.74	1.95			
	Total	24	47.63				

Table 10.14 Post-intervention results, analysed by ANOVA for between method group data.

Thus, on 4 of the 7 measures, the Application score, the Tarler-Benlolo score, the Home Situations score, and the Personal Stress score, the ANOVA procedure indicated a significantly different effect of intervention between the four methods. It was therefore decided to conduct a further analysis, via the Scheffé procedure of the Multiple Range test, to investigate these difference.

Variable (Measure)	Method	Mean	Pairs of groups significantly different	
Application score (AP2)	Group	6.00	Group:	Wait list
	Home visit	5.50	Home visit:	Wait list
	Telephone	5.25	Telephone:	Wait list
	Wait list	11.82		
Tarler Benlolo (TB2)	Group	7.12	Group:	Wait list
	Home visit	4.40	Group:	Home visit
	Telephone	6.41	Telephone:	Wait list
	Wait list	3.90	Telephone:	Home visit
Home situations (HS2)	Group	25.25	Group:	Wait list
	Home visit	15.70	Home visit:	Wait list
	Telephone	20.75	Telephone:	Wait list
	Wait list	60.27		
Personal stress (PS2)	Group	20.12	Home visit:	Wait list
	Home visit	15.50		
	Telephone	22.83		
	Wait list	34.33		

Table 10.15 Comparison of means by Scheffé procedure

Thus, using the Scheffé procedure of the Multiple Range test, significant differences were found between 11 pairs of methods: 9 of these indicated that the Waiting list was significantly different from the other groups at post-intervention. It was thus possible to reject the null hypothesis and to accept the prediction that at post-intervention there would be a measurable difference between the four groups reflecting the different methods of intervention; i.e., waiting list children did not change their behaviour.

10.4.5.4 Prediction 4 - at follow-up

(Pre-intervention and follow-up measurement will show a significant effect of intervention in the experimental population as a whole. The null hypothesis was that there will be no significant effect).

Pre-intervention and follow-up scores were analysed by means of a t-test. Results are shown in Table 10.16.

Measure	Level of significance (two tailed)	
Application score (AP)	$p < 0.0001$	***
Tarler-Benlolo (TB)	$p < 0.019$	*
Home Situations (HS)	$p < 0.0001$	***
Personal Stress (PS)	$p < 0.003$	**
Goal Achieved (GL)	$p < 0.001$	***

Table 10.16 Pre-intervention and follow-up results for the whole group

Thus, considering the experimental population as a whole, statistical analysis suggested highly significant differences at follow-up on the central measure AP, on the HS and the GL. Other measures also reached significance. In these circumstances, the null hypothesis may be rejected with confidence and the prediction accepted.

10.4.5.5 Prediction 5 - at follow-up

(Pre-intervention and follow-up measurement will show a signficant effect of intervention within each group of the experimental population who experienced active intervention. The null hypothesis was that would be no signifiant effect.)

Group method

Pre-intervention and follow-up scores were analysed by means of a t-test. Results are shown in Table 10.17.

Measure	Level of significance (two tailed)	
Application score (AP)	p < 0.083	NS
Tarler-Benlolo (TB)	p < 0.297	NS
Home Situations	p < 0.020	*
Personal Stress (PS)	p < 0.022	*
Goal Achieved (GL)	p < 0.009	**

Table 10.17 Pre-intervention and follow-up results

for the Group method

Thus, as regards the Group method, statistical analysis suggested differing outcomes, pre-intervention and follow-up, according to the measures taken. Differences on the AS and the TB did not reach significance; those on the HS, PS and GL did reach significance. Thus the null hypothesis could be rejected and the prediction accepted only with limited confidence.

Home visit method

Pre-intervention and follow-up scores were analysed by means of a t-test: results are shown in Table 10.18.

Measure	Level of significance (two tailed)	
Application score (AP)	p < 0.007	**
Tarler- Benlolo	p < 0.030	*
Home Situations	p < 0.024	*
Personal Stress (PS)	p < 0.089	NS
Goal Achieved (GL)	p < 0.165	NS

Table 10.18 Pre-intervention and follow-up results

for the Home visit method

Thus, as regards the Home visit method, statistical analysis suggested differing outcomes, pre-intervention and follow-up, according to the measures taken. Differences on PS and GL did not reach significance; those on the AP, TB and HS did reach significance. Thus the null hypothesis could rejected and the prediction accepted only with limited confidence.

Telephone method

Pre-intervention and follow-up scores were analysed by means of a t-test: results are shown in Table 10.19.

Measure	Level of significance (two tailed)	
Application score (AP)	$p < 0.118$	NS
Tarler-Benlolo (TB)	$p < 0.857$	NS
Home Situations	$p < 0.076$	NS
Personal Stress (PS)	$p < 0.191$	NS
Goal Achieved (GL)	$p < 0.002$	**

Table 10.19 Pre-intervention and follow-up results

for the Telephone method

Thus, as regards the Telephone method, statistical analysis suggested significant differences, pre-intervention and follow-up, only on the GL. On the other measures the differences did not reach significance. Thus the null hypothesis could not be rejected and the prediction could not accepted with any confidence.

10.4.5.6 Prediction 6 - at follow-up

(Pre-intervention and follow-up measurement will show a significant difference in the effect of intervention between the three groups of the experimental population who experienced active intervention. The null hypothesis was that there would be no significant difference.)

Follow-up scores were analysed by ANOVA. Results were as shown in Table 10.2c.

Analysis of variance

Variable (all by treatment)	Source	DF	Sum of squares	Mean squares	F ratio	F prob.	
Application score	Between groups	2	10.35	5.17	.235	.7924	NS
(AP3)	Within groups	20	440.07	22.00			
	Total	22	450.43				
Tarler Benlolo	Between groups	2	15.58	7.79	2.63	.0980	NS
(TB3)	Within groups	19	56.27	2.96			
	Total	21	71.86				
Home situations	Between groups	2	21.90	10.95	0.27	.9730	NS
(HS3)	Within groups	20	7982.10	399.10			
	Total	22	8004.00				

Variable (all by treatment)	Source	DF	Sum of squares	Mean squares	F ratio	F prob.	
Personal stress	Between groups	2	6940.86	347.43	.962	.4018	NS
(PS3)	Within groups	17	6135.68	360.92			
	Total	19	6830.55				
Goal achieved	Between groups	2	3.74	1.87	.247	.7835	NS
(G13)	Within groups	19	144.11	7.58			
	Total	21	147.86				

Table 10.20 Follow-up results, analysed by ANOVA for

between method group data

Thus, statistical analysis suggested no evidence of significant differences pre-intervention and follow-up in the effect of intervention evident between the three groups who experienced active intervention. It was thus not possible to reject the null hypothesis; i.e. there was no significant difference between the three methods, and the three groups of children maintained their improved behaviour equally.

10.5 Graphical representation of results

Figures 10.1 to 10.7 show comparisons of the results of the methods of intervention as demonstrated by each of 7 measures.
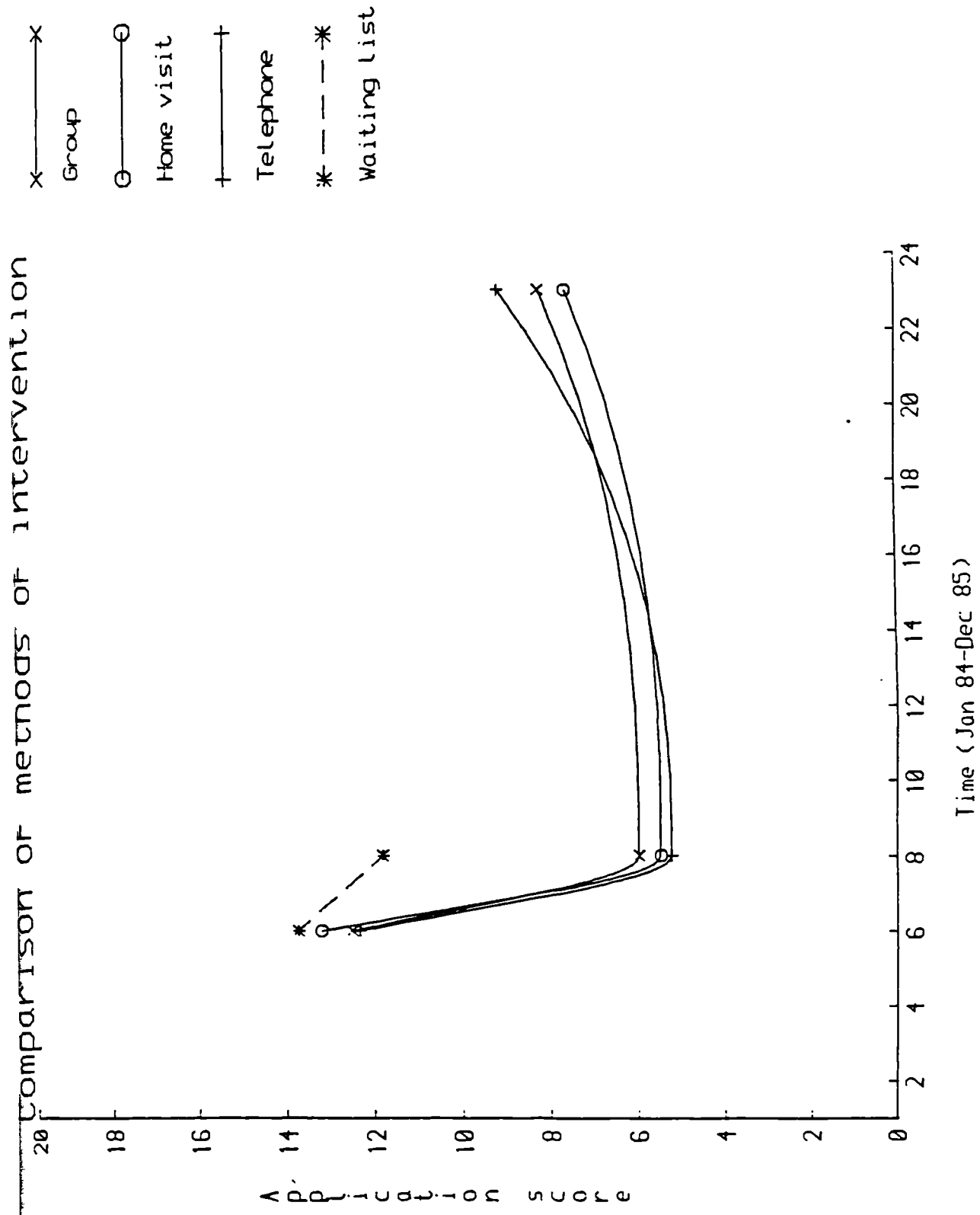
Figure 10.1 Plot of Application Scores for the four methods over

the period of the study
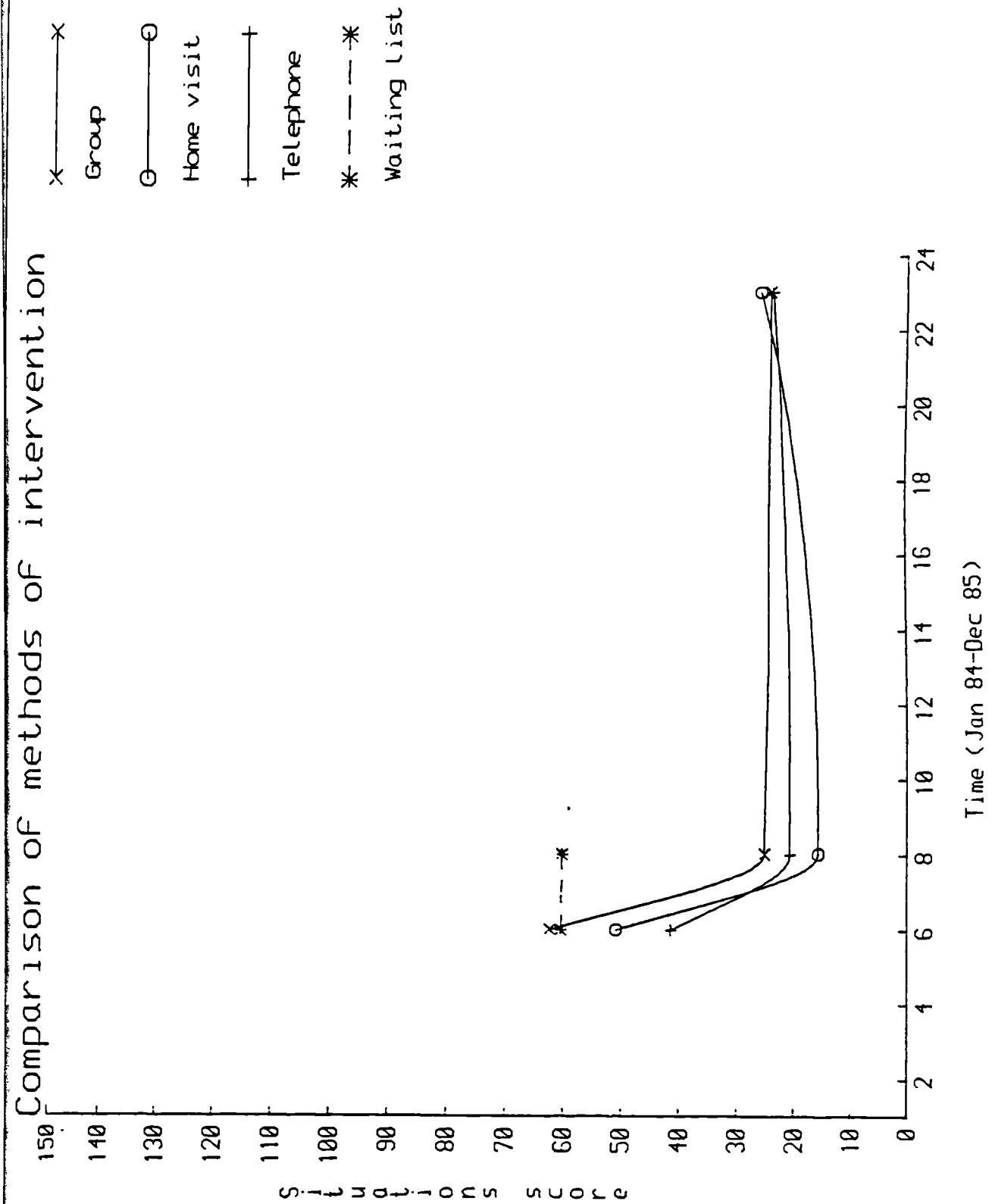
Figure 10.2 Plot of the Home Situations score for the four methods

over the period of the study
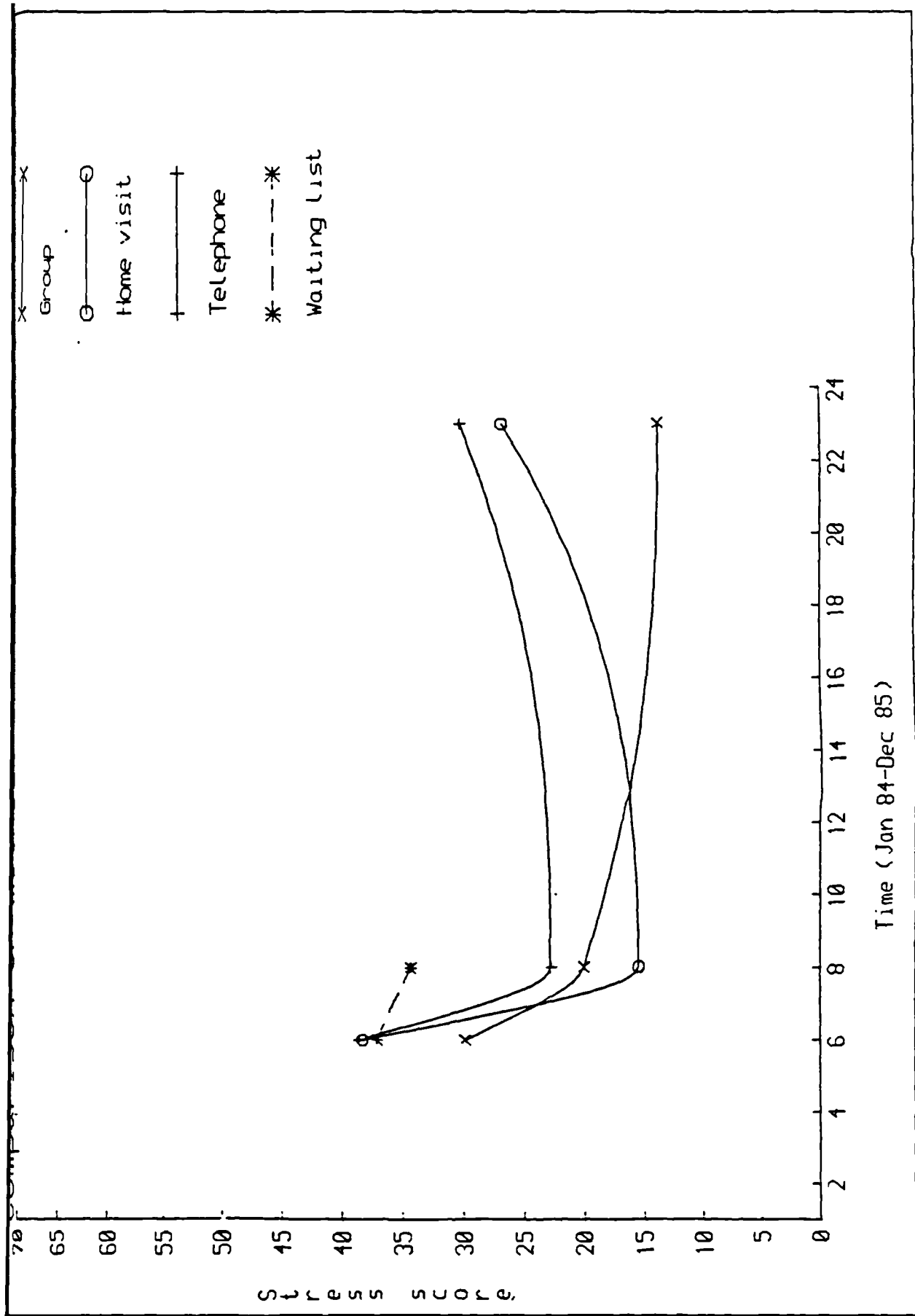
Figure 10.3 Plot of the Personal Stress scores for the four methods over the period of the study
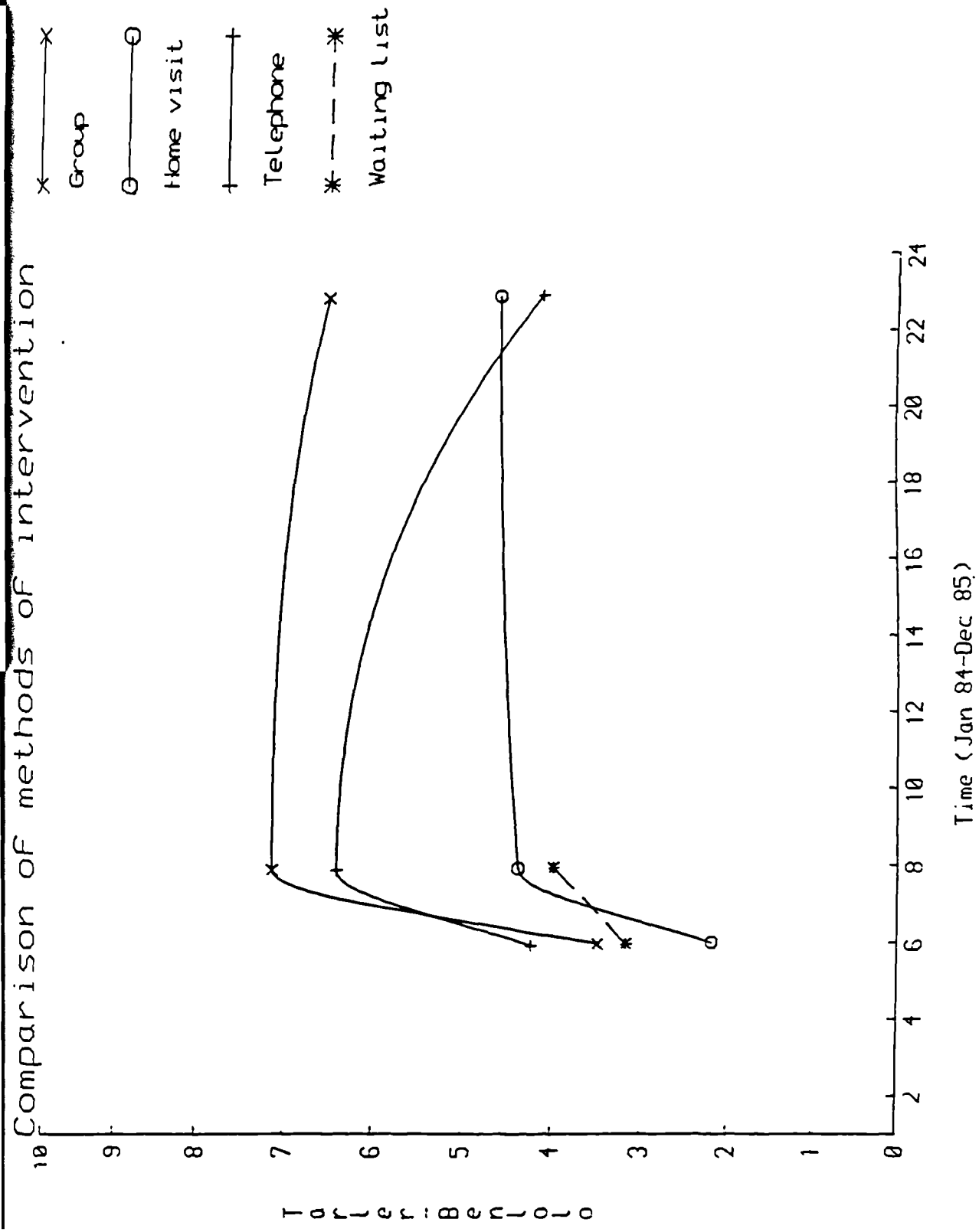
Figure 10.4 Plot of the Tarler Benlolo scores for the four methods

over the period of the study

Comparison of methods of intervention

Group ✕
Telephone ◯
Waiting list +

Time (Jan 84-Dec 84)
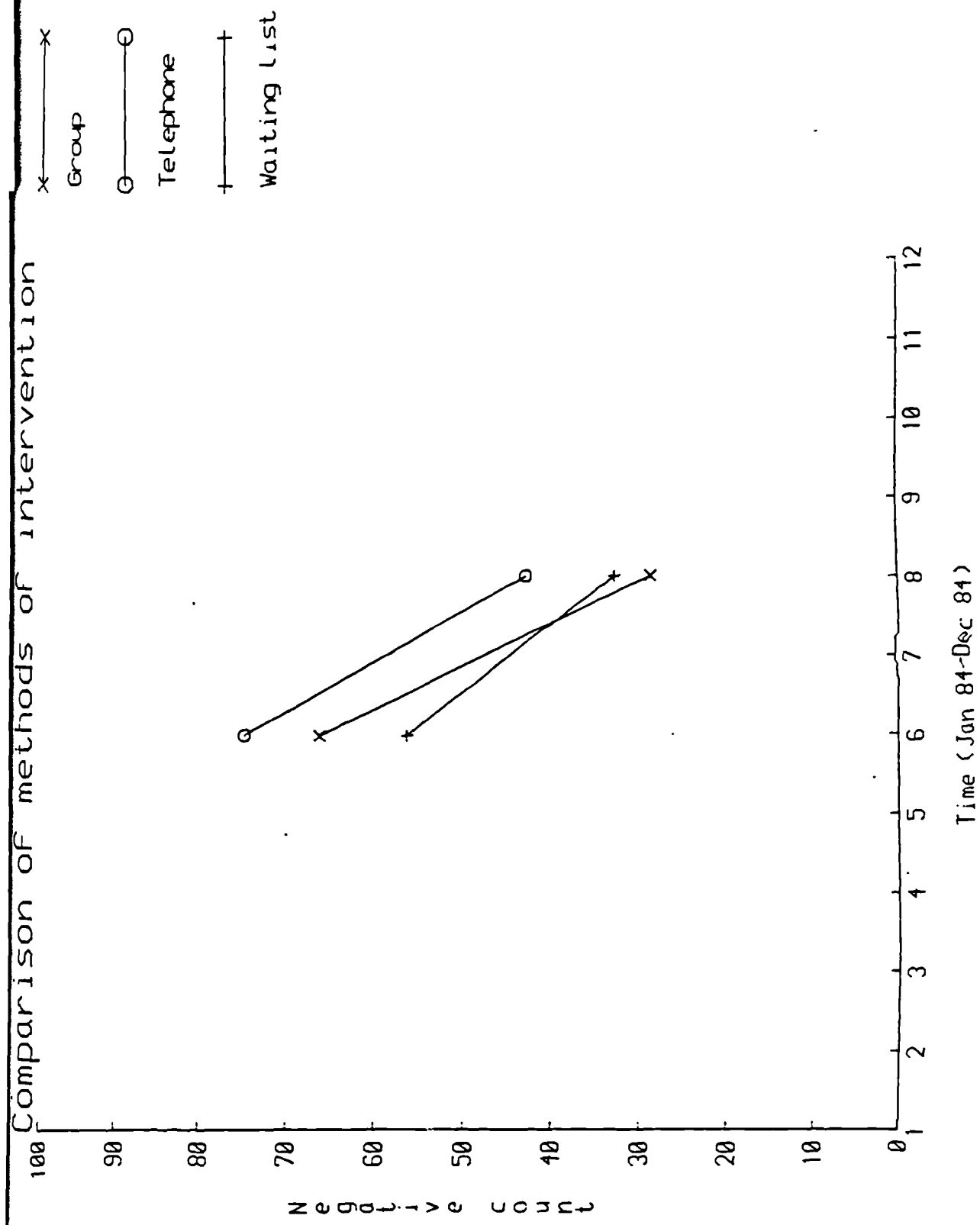
Negative count

Figure 10.5 Plot of the Negative counts for the three methods over the period of the study
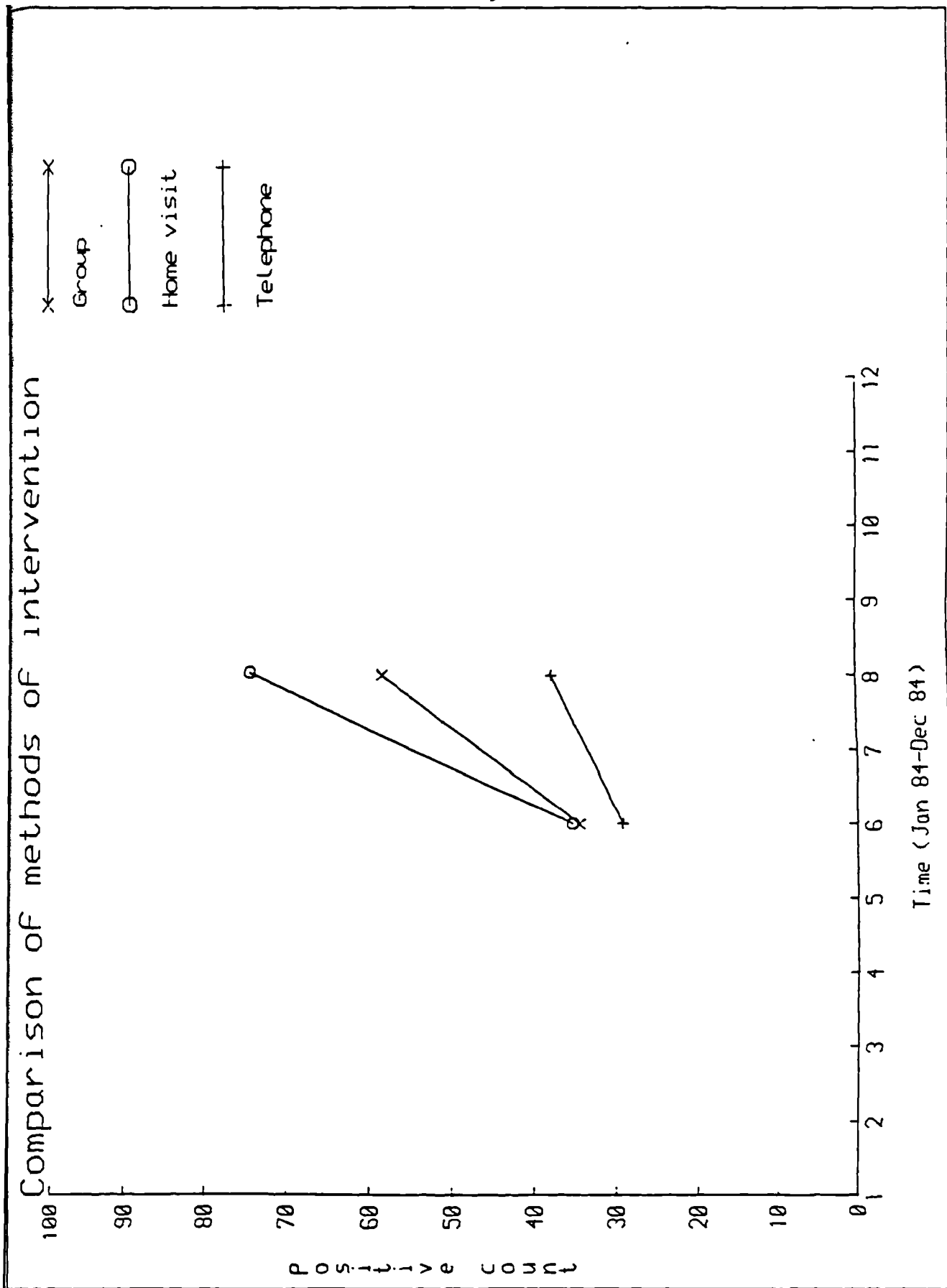
Figure 10.6   Plot of the Positive counts for the three methods

over the period of the study
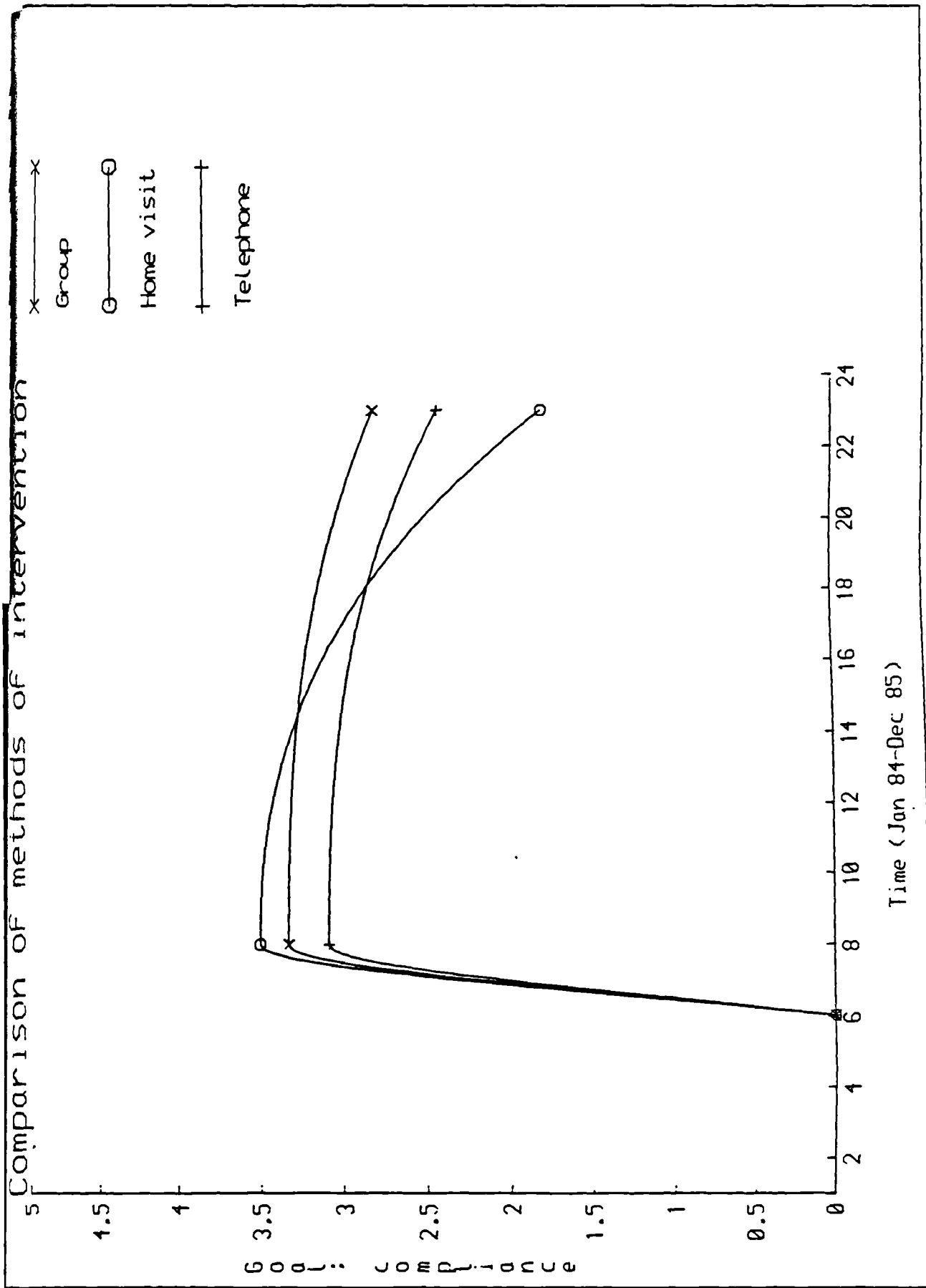
Figure 10.7 Plot of the Goal compliance scores for the three methods over the period of the study

SECTION 3   DISCUSSION

Chapter 11

Discussion of results in relation to the predictions

This Section will examine the results of the study. First
some attention will be given to the research design; then the
findings of the pilot study will be considered; thirdly, the
main study results will be examined in the light of the six
predictions; fourthly, the findings will be scrutinised
against the criteria of effective intervention suggested by
Paul (1969) and given on page 98; finally, in later chapters,
some implications of the findings will be considered.

1   The research design of the study

Gurman and Kniskern (1981), in their major review of the
field of family and marital therapy, criticised many of the
research designs in that field. They highlighted in particular
the lack of methodological rigour noting many major *weaknesses.*
They set out the fourteen criteria which, in their view, are
crucial indicators of the quality of the design of a research
study.

   1   Controlled assignment of clients to treatment
   conditions: random assignment, matching of total
   groups or matching in pairs.

   2   Pre-postmeasurement of change.

   3   No contamination of major independent variables:
   this includes therapists' experience level, number of
   therapists per treatment condition and relevant
   therapeutic competence ...

4   Appropriate statistical analysis.

5   Follow-up: .... 3 months or more.

6   Treatments equally valued: tremendous biases are often engendered ... when this criterion is not met.

7   Treatment carried out as prescribed or expected.

8   Multiple change indices used...

9   Multiple vantage points used in assessing outcome.

10 Outcome not limited to change in the 'identified patient'..

11 Data on other concurrent treatment ....

12 Equal treatment length in comparative studies...

13 Outcome assessment allows for both positive and negative change.

14 Therapist-investigator non-equivalence.

It will be apparent from what has gone before that many of the above criteria were met in the design of the study being described. Criteria 1 and 2 were taken into account from the outset, and where slight departures from unwavering random allocation were noted, it was argued that these were necessary on ethical grounds. Criterion 3 was met fully in that the author was the sole trainer/therapist throughout. Statistical analysis was via the Statistical Package for the Social Sciences conducted on the University of Leicester mainframe computer.

The follow-up period was far beyond the 3 months asked
for by Gurman and Kniskern: the shortest follow-up period
for the main study was 9 months. Criterion 6 was met in that
all the strategies of training took place within the social
learning theory paradigm, and the author had no clear view at
all concerning which method, group, home visit or telephone,
would prove most beneficial. Criteria 7 - 10 were taken into
account in the original experimental design, and data relating
for example, to both child behaviour and maternal stress, are
shown in the Results section. Data was not however gathered
from fathers or other caretakers and this is a short-coming.

Another methodological weakness is that while information
was sought concerning whether a G.P. had seen the child, and
whether the child was receiving either medication or a special
diet, this data was far from systematically gathered and no
clear results are available upon this topic. Such data
would need to be collected and the effects of such
medication or special diet taken into account if this study
were to be replicated.

Stringent efforts were made to meet criteria 12 - 14; the
research design, on page 117, shows how they were taken into
account.

2   The pilot study

Results from the pilot study offered much encouragement
for continuing with the main study. Both sets of parents,
those in the Home Visit method and those in the Telephone
method, reported to the independent evaluators that their
children's behaviour had improved.

A greater range of responses was reported of the children experiencing the Telephone method than of those experiencing the Home visit method. The independent evaluator of the latter noted broadly similar responses, but the evaluator of the former noted that while target behaviours improved to a statistically significant extent in the group as a whole, individual analysis of each child's data showed that not all improved alike.

This finding is in line with the author's own records, in that among her notes she has indications of outstanding success with one little boy, a child placed with the family with a view to adoption, and who made progress at a rate which astonished both her and the people around her. Her letter testifies to her satisfaction. (See Appendix 2). The author also has notes, however, of an attempt at intervention by telephone which was clearly unsuccessful. The little boy remained severely aggressive and destructive at the end of the intervention and at follow-up, despite the best efforts of both mother and author.

The results from the pilot study are then directly in keeping with those which social learning theory would predict. As Patterson (1971) and O'Dell (1974) suggested, some parents at least can be trained to manage their children effectively. Further, the results suggest that some parents can be trained not only in the face-to-face situation, but by telephone - using ways of handling situations based upon principles set out in simple manuals.

The independent evaluators were rightly critical of a number of aspects of the pilot study: the lack of pre-intervention, or baseline, data, the small numbers involved and the language of some of the booklets. In addition, they reported a clear wish on the part of parents for a data collection sheet which enabled them to record the positive instances of their children's behaviour as well as the nega-tive ones. Parents did not like being required solely to focus upon their child's unacceptable behaviour. It was not difficult to take all these issues into account when planning the detail of the main study, and to make improvements.

The evaluators also noted a number of other topics which were of considerable interest: some concerned broad issues relating to the study, and some the finer detail of the parents' experience in implementing change. These two sets of topics will be briefly considered below, but will be examined in greater detail when discussing the results of the main study.

Broad issues raised included the indications of enhanced outcomes when both fathers and mothers were involved in the programme of child-management; the possible part played by dietary factors in contributing to the difficult behaviours of some children; and the impact of social class variables. The evaluators noted that Patterson (1971) found that training families from lower socio-economic status took rather longer than for families of higher status.

Points of finer detail stemmed directly from the parents'
reports:. the anxiety which some felt about becoming angry -
'for fear of what they might do'; their deep concern and
care for their children, despite all that had happened; and
their unfamiliarity with some key principles of the social
learning theory approach - particularly 'planned ignoring'.
As the author herself found during the pilot study, these
parents sought to be 'good parents'; this did not entitle
them, as they felt, to be angry with or directly controlling
of their children. 'Can this be right?', wondered one mother
aloud, as we listened together to the bellows of her four
year old who, after terrorising his younger brother, had been
removed yet again to Time Out. She was clearly unsatisfied
by my reassurances, and remained troubled until, over time,
she saw the gradual improvement in her son's behaviour.

Further points of fine detail noted by the evaluators
were the improvement noted not only between parents and
target children but between other members of the families,
including grandparents and siblings, and those children.
Parents did not cease to worry about their children, however;
despite feeling far more confident than at pre-intervention,
and despite their feeling that they now had a repertoire of
strategies to use should new problems arise, it seems that
events had 'sensitised' them to the target children, and
that anxiety concerning them persisted.

As indicated, some of these topics will be examined in
more detail when discussing the results of the main study -
to be considered next.

3   The main study

It is intended to discuss the results of the main study

in several ways. First, the results relating to each of the

six explicit predictions will be considered;   second, a number

of broad issues arising from the research will be discussed,

to be followed, thirdly, by an examination of some specific

issues;   finally, recommendations will be made concerning

areas which clearly call for further research. While the

material arising from the predictions will be considered in

this chapter, each of the other fields will constitute a

chapter in its own right.

4   Results in relation to the predictions

4.1 Prediction 1

Prediction 1 anticipated that at post-intervention there

would be a significant effect of that intervention in the

experimental population as a whole;   results bore out that

prediction to the full. Each of seven measures suggested

highly significant differences.

This finding, while gratifying, is no more than one would

expect from a training programme designed to teach parents how

to implement behavioural principles. It adds further weight

to the conclusion of Atkeson and Forehand and of O'Dell

(1985) that the literature has empirically demonstrated a

sufficient number of successful interventions to show that

parent training is effective with some families.

A particularly pleasing finding from this study was the
extent of the consistency across measures. While it has to
be acknowledged that, at this stage, all the post-inter-
vention data was collected by the author, which may have
contributed to a demand effect, some of the measures, such
as the Tarler Benlolo Knowledge of Behavioural Principles
Questionnaire, were not accessible to such an effect; that
is, the mothers either knew the answers or they did not. This
is also true of the data collection of Negative and Positive
Behaviours, in that these data were collected in the final
week of the intervention and in the ordinary course of events;
that is, the mothers did not know that this particular set of
data would be used for purposes of evaluation.

It is important to note that these results relate to both
members of the mother-child dyad. Not only did the children's
behaviour markedly improve, as recorded by the parents, but the
mothers reported a very highly significant reduction in levels
of stress. Both sets of participants in the service had been
affected thereby.

In summary, the findings from the post-intervention data
from the group as a whole were very encouraging indeed, and
support the prediction unreservedly. In that the positive
outcomes relate to both mothers and children, this offers
additional evidence that training parents via the triadic
model can be highly effective.

4.2 Prediction 2

Prediction 2 anticipated that at post-intervention there would be a significant effect of that intervention within each group of the experimental population. The results as they relate to each of the groups will be considered in turn.

Group method

The results from this group are very interesting. All measures except one, Personal Stress, indicate the effectiveness of employing the training programme in the Group method, although different measures were associated with different levels of significance.

It is important to record here that it appeared to the author that the two groups so fell out that they were of somewhat different social mix. The first cohort of mothers all came from council housing and one was a single parent coping with three young children: by contrast, among the second cohort of mothers, only one came from council housing, and some either had their own car, or ready access to one. In addition, the author felt the Spring cohort to be 'very hard work', in that one member thereof was <u>very</u> assertive and had constantly to be discouraged from dominating the less confident members: by contrast, the Autumn cohort of mothers was much more homogeneous in terms of social confidence and members actively supported each other.

At the stage of post-intervention, however, these differences between the two cohorts are not reflected in the data, as the results are, in all cases, for the two cohorts together. Since the difference in social mix between the two cohorts was so marked, however, it seems important to report it here.

It is noteworthy that while six measures indicated results
ranging from 'significant' to 'very highly significant', the
results concerning Personal Stress were 'non-significant'.
Within the Group method then, the mothers, despite reporting
clear improvement in their children's behaviour, and despite
having reached, on average, the goal of getting their children
to do what they were told, continued to worry about them
and to feel stressed and distressed by them. This phenomenon
will be discussed further below.

Home visit method

Participants in this method all reported 'very highly
significant' outcomes on four of the seven measures, and
these included Personal Stress. Lower levels of signifi-
cance were associated with both Negative Behaviours and
Positive Behaviours, while measures on the Tarler Benlolo
Questionnaire did not reach significance.

It is difficult to pinpoint any specific variables which
distinguished this group of participants from the overall
experimental population. The author's notes record that
families cooperated well, apparently taking pains to follow
the guidance offered, and only one was a one-parent family.

Some of the families were coping with major difficulties:
one child, for example, had had repeated hospital admissions
from infancy; another continued to be handled totally diff-
erently by father and mother; while between another set of
parents there was considerable marital conflict. It testifies
to the potency of behavioural principles that they nevertheless
proved effective on some important measures.

Telephone method

The results arising from this method were of considerable
interest. Findings from the pilot study had suggested that at
least some families could be helped by telephone discussion
focused upon the behavioural principles desribed in booklets
sent by post, but the author suspected that this outcome
might be an artefact of her initial enthusiasm to offer a
good service. She sought throughout to follow the general
guidelines of working which featured in the other methods.

It was therefore startling to note that participants in
this method reported, on average, results which were, with the
exception of scores of Positive Behaviour, all 'significant'
or better. Indeed three measures, including the central
measure, Application Score, were all 'very highly significant'
It is worth highlighting here the fact that, with the excep-
tion of a five minute encounter with one of the mothers which
occurred by chance at a meeting, and a more extensive series
of meetings with another mother who prior to the intervention
had lost a child through a cot death, the author has not met
face-to-face any of the parents with whom she worked by the
telephone method.

In trying to understand these encouraging results, it may
be helpful to invoke the concept of 'self efficacy', as
pinpointed and developed by Bandura (1977). This concept and
its implications for the present study will be examined in
some detail in a later chapter.

Waiting list control method

To recapitulate the procedure for this method: partici-
pants had an initial brief meeting with the author, in which
they were told the frustrating news that the random allocation
of applications for help had led to their being placed upon a
waiting list. Pre-intervention data had already been routinely
collected from them, and, at the end of the eight weeks which
corresponded to the intervention period of the 'active treat-
ment' groups, the same four measures were administered again.

None of the measures reached significance. The implica-
tion of these results is that for the eleven children who spent
eight weeks or, in a few instances, longer on the waiting list
there was no evidence of improvement or 'spontaneous remission'.
These children did not as a group show any evidence that they
were beginning to 'grow out of' their difficult behaviour:
indeed inspection of the raw data suggests that a number of
them had not only not improved, but had actively deteriorated.

Concerning maternal stress levels, as a group there was
no average reduction in tension, and the stress levels noted
by several mothers had markedly increased. The same is true
of the Home Situations measure: children on the waiting list
had on average <u>not</u> calmed down; they were causing as many,
and sometimes more, difficulties at home as at the outset.

In summary, being on the waiting list suggested that
allowing for natural developmental and maturational processes
to occur did <u>not</u> lead to the spontaneous improvement in these
children which some might anticipate.

4.3 Prediction 3

Prediction 3 anticipated that at post-intervention there would be significant differences between the four groups of the experimental population reflecting the different methods of intervention. Analysis by ANOVA did indeed find significant differences between methods on the main measure, namely the Application score, and on the measure of Personal stress, and very highly significant differences on the Home Situations score. Further analysis, via the Scheffe procedure of the Multiple range test, found significant differences between eleven pairs of methods; of these, nine indicated that it was the Waiting list control method which was significantly different from the other methods at post-intervention.

The balance of the evidence at post-intervention suggests therefore that, in line with the conclusions of Atkeson and Forehand (1978) and O'Dell (1985), the training of parents in the practice of behavioural strategies in the management of their children can significantly improve the conduct of those children, by comparison with other children whose parents do not receive such training.

It is now time to turn to an examination of the results at follow-up, which, it will be recalled, was conducted by independent evaluators at intervals between 12 and 18 months after the termination of regular meetings. In one Group family, four Home visit families and one Telephone family, all of whom requested help, between one and several additional booster contacts were made, as this was considered ethical.

4.4 Prediction 4

Prediction 4 anticipated that at follow-up there would be a significant effect of intervention in the experimental population as a whole: results bore out that prediction fully. Each of the five measures which could be taken at follow-up reached significance, or better, with no less than three reaching levels which were very highly significant.

Families who had been on the Waiting list control method were reallocated, randomly, to the three active treatment methods, and training was offered to them routinely - together with later applicants to the course. At follow-up, therefore, there were 30 families who potentially could supply data; as events turned out it was possible for the evaluators to obtain such data from 23 families. One family had moved away and could not be traced; two families reported that they had posted the questionnaires and other papers, but they did not arrive, and four families did not wish to participate further.

The results, for the group as a whole, were very encouraging: they indicated that training parents in the practice of behavioural strategies can, and does, have enduring effects. The degree- of significance had, admittedly, dropped slightly for two measures, but the Application score, the main measure, still yielded 'very highly signifiant' results.

The length of the follow-up period should be noted; if six months is generally accepted as the minimum period for results to be regarded as worthy of consideration, the fact that these results were obtained after two to three times that interval makes them all the more encouraging.

4.5 Prediction 5

Prediction 5 anticipated that at follow-up there would still be a significant effect of the intervention within each group of the experimental population who experienced active intervention - numbering three. The results as they relate to each of the methods will be considered in turn; the overall indications are that outcomes are rather less encouraging for the methods separately than for the group as whole.

Group method

The results arising from this method suggest that the very positive outcomes discernible at the end of the intervention had diminished somewhat after 15 to 18 months. This deterioration was not total: results on three of the five measures were still signficant, and on the Goal Achievement score, (Gaining child compliance with instructions), they were highly significant. It is disappointing that the main measure, the Application score, was no longer significant.

Such a finding is entirely in line, however, with the common finding (Herbert, 1981) that there are often problems in helping parents to maintain newly learned strategies of handling their children. When habits of managing children by smacking and hitting have been acquired both by personal experience and by social modelling, it is not surprising that the brief teaching possible in ten short sessions is inadequate to reverse such over-learning. As one of the parents put it to the author, 'I've gone back to leathering him again!'.

Home visit method

Results from participants in this method at follow-up were more encouraging, in that they reached significance or better on three of the five measures, and these included the main measure. Results concerning Personal stress and reaching the goal of child compliance with instructions did not reach significance.

It is pertinent to note here that the raw data results suggest that the Goal attainment score was considerably skewed by one particular finding concerning the little boy described in the case study, Kevin. His mother rated his situation in relation to the goal of gaining compliance as having deteriorated from the starting point, represented by 0, to -5. The independent evaluator reported of this:

N.B. Mrs. E .... had great expectations of the course and so perhaps this is being reflected in her particularly low rating. I can't really imagine that he has got that much worse than he was before!

Whatever the explanation, the data was as reported and cannot be discounted; the Goal attainment result was non-significant. This was also the case for Personal stress.

Overall then, for the Home visit method, outcomes reflect the commonly found trend that while very encouraging results of parent training can readily be obtained in the short term, in the long term these tend to fall away. Clearly strategies to diminish this are urgently needed.

Telephone method

The results from this method appear disappointing. Only one measure, the Goal of achieving child compliance with instructions, was highly significant: others were non-significant.

It is encouraging that at 15-18 months follow-up, parents reported that they had reached and maintained the goal of being able to give an instruction to their child which was obeyed. If other results are disappointing by comparison, a number of factors throw some light thereon.

First, from the twelve families involved, only eight sets of data could be obtained. One family had moved away; two both reported that they had posted the material back, but it did not arrive: (of these one had had extremely successful outcomes at post-intervention); and one did not return the material. The sample was thus smaller than had been hoped.

Secondly, inspection of the raw data shows that of the 8 children concerned, no less than 6 obtained considerably reduced scores on the follow-up administration of the main measure, the Application score; one child obtained the same score and only one had an increased score. Thus, the trend, while not significant, was still in the desired direction, although post-intervention levels were not maintained.

Mothers did continue to report high levels of stress at follow-up (30.17 out of a possible 70, compared with 38.58 at pre-intervention and 22.75 at post-intervention). The same phenomenon as noted in the other methods is again apparent here: after clear improvement following training, there was a falling off, although not to pre-intervention levels.

4.6 Prediction 6

Prediction 6 anticipated that at follow-up there would be significant differences in the effect of intervention evident between the three groups of the experimental population who experienced active intervention. Analysis by ANOVA found no significant differences between methods on any of the five measures.

The implication of these results, when taken in conjuction with the finding that at follow-up there was a clear effect of the intervention with the experimental population taken as a whole, is that no one of the three methods of training parents in the practice of behavioural strategies with their difficult children is more efficaceous than the others.

While some differential results were noted when considering the three strategies separately from one another, no one method was clearly more effective than another.

The implications of these findings need further discussion; they will be examined in more detail in the next chapter.

5 Summary of the results

It will be seen from the above that the evidence suggests clear confirmation of earlier reviews, such as that of Atkeson and Forehand (1978), which concluded that training parents in the practice of behavioural strategies can be effective. At post-intervention the data showed unequivocal evidence of positive outcomes both for the experimental population as a whole and for all three active methods of intervention. The waiting list control method showed no such positive outcome.

At 12-18 months follow-up, independent evaluation showed
that such positive effects of intervention were maintained
for the experimental population as a whole, although at
reduced significance; there were less *encouraging data from*
the three methods of training, group, home visit and telephone,
when considered separately. These three groups did not differ
between themselves however in their degrees of effectiveness.
In fact, the analysis showed nothing to choose between them.

The implications of this brief summary will be discussed
in subsequent chapters.

6   Extent of effectiveness against Paul's criteria

It will be recalled that Paul (1969) proposed four
major criteria for the effectiveness of psychotherapeutic
interventions in general. To recapitulate:

1   The client's problems have changed significantly
in the desired direction.

2   New problems have not been created.

3   The new behaviours have generalised and become stable
outside the treatment setting.

4   They are maintained over a substantial time period.

It is fitting to consider the results obtained briefly
against these four criteria.

6.1   The problems have changed in the desired direction

It will be apparent from what has gone before that such
is the case when considering the experimental population as
a whole. Results were very encouraging indeed for the

overall group both at post-intervention and at follow-up.

Embedded in these results, however, were outcomes for certain

children which were far from encouraging, and these are a

matter for deep concern. Further research is urgently needed

to clarify how these families can be helped. For the majority

of families, however, outcomes were in the desired direction.

6.2 New problems have not been created

This question was not routinely asked by the author or

by the independent evaluators, so it is difficult to give a

precise response to this criterion. Inspection of the raw

data arising from the Application score sheets is perhaps the

nearest way possible of ascertaining whether presenting

problems changed over time. Using this method, it emerges

that of the 30 children who participated at the follow-up

stage, only 4 had a Application score higher than at pre-

intervention: 1 of these 4 was higher by 6 points; the other

3 were higher by only 1 point.

The indications are then that it may be said with some

confidence that for the great majority of the families, no

new problems had arisen. 'Symptom substitution' did not

appear to be an issue.

6.3 New behaviours have generalised beyond treatment setting

When considering this criterion, the advantages of the

triadic model become apparent. The 'treatment setting' to which

the American literature often refers is the clinic: what

Paul appears to be requiring of a successful intervention is

that any improvement in behaviour shall generalise from the

clinic to the home. The model employed in this study, however was so designed that not only were the parents trained as 'therapists' but the location of treatment was the precise setting in which the problem behaviour occurred: the home.

As noted by Patterson (1975), difficulties of generalisation have been noted between, for example, home and school settings, but as the children participating in the study were pre-school children, this was not a major issue. The author has a number of clear reports concerning some children, e.g. L. W., that pre-school teachers spontaneously reported that he was 'much quieter' and 'easier to manage', but as this evidence was not routinely sought in a quantitative way, it is impossible to arrive at any firm conclusions.

6.4 Improved behaviours are maintained over substantial time

The study was explicitly designed in such a way as to examine whether changes in behaviour would persist; that is, the final follow-up took place at 18 months for the first cohort and at 12 months for the second. All data reported, and discussions of results, are based upon that primary fact. The criterion may thus be regarded as having been met.

6.5 Summary: the meeting of Paul's 'effectiveness' criteria

From the above discussion it may be claimed, with some reservations arising from unquantified changes associated with criterion 2, that the four criteria suggested by Paul (1969) have all been met both in the design and the outcomes of this study. The implications thereof will be discussed in the next chapter.

Chapter 12

Discussion of results in relation to individual participants

Having examined the data associated with the different methods of training parents in behavioural management of their children, it is now time to consider the impact of the intervention upon individual parents and their children. The features to be considered include:

1 Success rates of the children at post-intervention and follow-up.

2 Outcomes for individual children in terms of the goals negotiated with mothers.

3 Initial maternal stress and its relationship with the outcomes for individual children.

4 The difficulties of comparing the progress of individual children.

5 Rates of improvement: the general case and departures therefrom.

6 The impact of specific procedures upon rates of change

Each will be considered in turn.

1 Success rates of the children at post-intervention and follow-up

Success rates were calculated using the main measure, the AP score. Appendices 3.6, 3.7 and 3.8 show each child's

% improvement score, calculated by using the following

formula:

$$\% \text{ improvement} = \left(\frac{\text{Pre-intervention AP - Post inter-vention or Follow up AP}}{\text{Pre-intervention AP}} \right) * 100$$

Table 12.1 to 12.5 are the key tables showing essential

outcome data;   Table 12.1 and 12.2 show which children had

improved at post-intervention using stringent and less stringent

criteria respectively, while Table 12.3 and 12.4 show outcomes

12-18 months follow-up in a similar way. A 'stringent' criterion

for success was one where the child's behaviour had improved

>60% upon pre-intervention;   a 'less stringent' criterion was

one in which the behaviour had improved >50%. Intermediate

success for each criterion level was a figure between the

criterion and the pass/failure figure of 40%.

Table 12.5 collapses the data at post-intervention and

follow-up for all children showing any form of improvement

and those showing none - against both levels of criterion.

It will be seen that 83.3% of the children showed some

improvement at post-intervention, although by follow-up this

figure had fallen to 52%;   data was missing for 7 children.

Outcomes at post-intervention: stringent criterion (N = 30)

	Success	Intermediate success	Fail	Missing data
Group	3	4	1	0
	L.A.	A.S.	J.C.	
	G.T.	M.B.		
	A.D.	N.P.		
		A.T		
Home visit	6	3	- 1	0
	L.W.	M.B.	S.B.	
	L.S.	R.M.		
	N.SH	K.E.		
	K.C.			
	T.M.			
	J.E.			
Telephone	6	3	3	0
	C.C.	S.T.	J.W.	
	M.J.	A.B.	M.C.	
	P.G.	S.W.	J.H.	
	M.H.			
	M.D.			
	M.L.			
Totals	15	10	5	0

Table 12.1 Table showing outcomes at post-intervention, with a 60% criterion for success and a 40 - 59% criterion for intermediate success - using AP scores

Outcomes at post-intervention: lesser criterion. (N = 30)

Post-intervention

	Success	Intermediate success	Fail	Missing data
Group	5	2	1	0
	N.P. A.T. L.A. G.T. A.D.	A.S. M.B.	J.C.	
Home visit	8	1	1	0
	L.W. M.B. L.S. R.M. N.SH K.C. T.M. J.E.	M.B.	S.B.	
Telephone	8	1	3	0
	S.T C.C. M.J. P.G. A.B. M.H. M.D. M.L.	S.W.	J.W. M.C. J.H.	
Total	21	4	5	0

Table 12.2 Table showing outcomes at post-intervention, with a 50% criterion for success and a 40 - 49% criterion for intermediate success - using AP scores

Outcomes at follow-up: stringent criterion (N = 23)

Follow-up

	Success	Intermediate success	Fail	Missing data
Group	0	3	2	3
		L.A.	M.B.	J.C.
		G.T.	N.P.	A.S.
		A.T.		A.D.
Home visit	5	1	4	0
	L.W.	L.S.	K.E.	
	M.B.		K.C.	
	R.M.		T.M.	
	N.SH		S.B.	
	J.E.			
Telephone	2	1	5	4
	M.J.	C.C.	S.T.	P.G.
	M.D.		A.B.	M.H.
			M.C.	M.L.
			J.H.	J.W.
			S.W.	
Totals	7	5	11	7

Table 12.3 Table showing outcomes at follow-up, with a

60% criterion for success and a 40 - 59% criterion for

intermediate success - using AP scores

Outcomes at follow-up: lesser criterion (N = 23)

Follow-up

	Success	Intermediate success	Fail	Missing data
Group	3	0	2	3
	L.A.		M.B.	J.C.
	G.T.		N.P.	A.S.
	A.T.			A.D.
Home visit	6	0	4	0
	L.W.		K.E.	
	M.B.		K.C.	
	L.S.		T.M.	
	R.M.		S.B.	
	N.SH			
	J.E.			
Telephone	2	1	5	4
	M.J.	C.C.	S.T.	P.G.
	M.D.		A.B.	M.H.
			M.C.	M.L.
			J.H.	J.W.
			S.W.	
Totals	11	1	11	7

Table 12.4 <u>Table showing outcomes at follow-up, with a</u>
<u>50% criterion for success and a 40 - 49% criterion for</u>
<u>intermediate success - using AP scores</u>

Differential outcomes at post-intervention and follow-up

Post-intervention (N = 30)

	Success	Intermediate success	Fail	Missing data
Stringent criterion	15 (50%)	10 (33.3%)	5 (16.6%)	0
Lesser criterion	21 (70%)	4 (13.3%)	5 (16.6%)	0

Follow-up (N = 23)

Stringent criterion	7 (30.43%)	5 (21.73%)	11 (47.82%)	7
Lesser criterion	11 (47.82%)	1 (4.34%)	11 (47.82%)	7

Table 12.5 Summary tables showing outcomes at post-intervention and at follow-up, with a criterion of 60% for success and a 40 - 59% criterion for intermediate success - using AP scores

Overall outcomes at post-intervention and follow-up

Post-intervention (N = 30)

	Showing improvement	Fail	Missing data
Stringent criterion	25 (83.3%)	5 (16.6%)	0
Lesser criterion	25 (83.3%)	5 (16.6%)	0

Follow-up (N = 23)

	Showing improvement	Fail	Missing data
Stringent criterion	12 (52.17%)	11 (47.82%)	7
Lesser criterion	12 (52.17%)	11 (47.82%)	7

Table 12.6 Summary tables showing overall outcomes at post-intervention and at follow-up - using AP scores

To summarise these data, a number of conclusions can be drawn concerning this sample population:

1 It is possible to change children's behaviour in the short term; or, to consider the same data and its implications for training, it is possible to train the parents of difficult pre-school children to manage their children effectively. Post-intervention, at the stringent criterion of >60% improvement on AP score, 50% of children demonstrated success and a further 33.3% were moderately successful, giving 83.3% of children who showed some improvement. At the lesser criterion of >50% improvement on AP score, 70% showed success, and a further 13.3% were moderately successful, again giving 83.3% who showed *some* improvement.

2 The effects of training endure for as long as 12 - 18 months, as reported by independent evaluators. There is, however a falling-away in the extent to which such improvements maintain between post-intervention and follow-up. At this latter point in time, and with data for only 23 children available, at the stringent criterion of >60% improvement on AP score, only 30.43% of the children sill showed clear success and a further 21.73% were moderately successful, giving 52.16% who showed some improvement. At the lesser criterion of >50%, 47.82% were still clearly successful, and 4.34% were moderately successful - again giving 52.16% who showed some improvement.

The possible reasons for this falling-away are of great interest, and of great theoretical importance. Several factors may together contribute to producing the phenomenon and thus to clarifying what may be done to prevent it.

A major probability is that eight weeks of training, one
session per week, are simply insufficient to change patterns
of hitting, smacking and otherwise punishing children which
have been learned by parents over a lifetime; in other words,
over-learning has taken place, which readily reasserts itself
at the end of training. While the trainer is easily available,
and while the training sessions are on-going, the parents seem
able to maintain the required changes of behaviour: in terms
of social learning theory, they receive reliable and frequent
reinforcement for so doing. When the group or the training
comes to an end, however, this supportive reinforcement is
withdrawn, and, again in terms of social learning theory, the
newly learned behaviour quickly extinguishes.

Another factor which probably intensifies the likelihood
of a falling-away is the temporary relief from tension which
giving a child a good smacking can give to an exasperated
parent. Thus, to thrash a child can be a rewarding outlet
for tension and if, as we have seen above, this outlet has
been part of a well-learned routine, then, without on-going
support to maintain change, the old habit is likely to become
reestablished very quickly. Once again, social learning
theory principles throw light on the phenomenon.

Other factors, including key variables emerging from
the data analysis which were associated with a falling-away
in improvement rates, as well as the subject of how falling-
away can be prevented, will be considered in Chapter 14.
Central among such preventive strategies will be the topic
of boosters, their timing and number.

2 Outcomes for individual children in terms of agreed goals

As indicated in Chapter 9, individualised goals for the child's behaviour were negotiated with each mother. Every family readily agreed that a common first goal should be,

That J ...... will do what he or she is told within one minute of being given an instruction.

Thereafter, the author agreed separate goals for each child with the mother concerned, based upon the application form which enumerated each child's problem behaviours. Goals were then set out clearly (see Appendices 1.1 and 1.11); e.g.:

1 That J .... will stay in his bed between 8.00 p.m. and 7.00 a.m., without disturbing his parents, or,

2 That J ..... will have no more than one temper tantrum, lasting no more than 2 minutes, each week.

Details of the numbers of goals agreed and the extent to which they were met are shown in Tables 12.7 - 12.9.

Method	Pre-intervention	Post intervention (at 8 weeks)		Booster intervention (at 20 weeks)	
	Mean no of subsid. goals	Goals attained crit. +3	Goals not attained crit. +3	Goals attained crit. +3	Goals not attained crit. +3
Group	6.12	3.62	1.37	2.87	2.37
Home visit	5.70	4.10	1.60	3.70	1.80
Telephone	4.41	3.33	0.91	3.41	0.50
Mean	5.41	3.68	2.12	3.32	1.55

Table 12.7 Outcomes of goals at post-intervention and at 20 weeks booster, by method.

Outcomes for subsidiary goals at post intervention (N = 30)

Method	Success (+3 on 60% of goals)	Fail (<+3 on 60% of goals)	Missing data
Group	Cell A: 5	Cell B: 1	2
	G.T.	J.C.	A.S.
	M.B.		L.A.
	A.D.		
	N.P.		
	A.D.		
Home visit	Cell C: 5	Cell D: 5	0
	L.S.	L.W.	
	R.M.	M.B.	
	N.SH	K.E.	
	T.M.	K.C.	
	J.E.	S.B.	
Telephone	Cell E: 9	Cell F: 2	1
	C.C.	S.T.	M.L.
	M.J.	J.W.	
	P.G.		
	A.B.		
	M.H.		
	M.D.		
	M.C.		
	J.H.		
	S.W.		
Totals	19	8	3
% of N	63.33%	26.66%	10.00%

Table 12.8   Children who had achieved agreed goals at post-intervention with a score of +3 for >60% of goals.

Data were subjected to a Fisher exact probability test. Constraints of this test led to the 3 * 2 matrix being partitioned into all possible 2 * 2 matrices, realising that in so doing the three statistics generated will not be independent as the same data is analysed three times.

Analyses of cells	Fisher exact probability (2 tailed)
A * C, B * D	0.307 NS
A * E, B * F:	1.000 NS
C * E, D * F:	0.183 NS

Table 12.9 Outcome data for subsidiary goals at post-intervention, analysed by Fisher exact probability test

In brief, the analyses showed no pair of methods to have statistically different outcomes at post-intervention.

Outcomes for subsidiary goals at booster: +20 wks (N = 30)

Method	Success (+3 on 60% of goals)	Fail (<+3 on 60% of goals)	Missing data
Group	Cell A: 3	Cell B: 4	1
	L.A. G.T A.T.	J.C. M.B. A.D. N.P.	A.S.
Home visit	Cell C: 7	Cell D: 2	1
	L.W. L.S. R.M. N.SH K.C. T.M. J.E.	K.E. S.B.	M.B.
Telephone	Cell E: 9	Cell F: 1	2
	S.T. C.C. M.J. P.G. M.H. M.D. M.C. J.H. S.W.	A.B.	M.L. J.W.
Totals	19	7	4
% of N	63.33%	23.33%	13.44%

Table 12.10   Children who had maintained agreed goals at 20 weeks' booster with a score of +3 for >60% of goals.

These data were also subjected to a Fisher exact
probability test. Constraints again led to the 3 * 2 matrix
being partitioned into all possible 2 * 2 matrices, realising
that in so doing the three statistics generated will not be
independent as the same data is analysed three times.

Analyses of cells	Fisher exact probability (2 tailed)
A * C, B * D	0.302 NS
A * E, B * F:	0.101 NS
C * E, D * F:	0.582 NS

Table 12.11 Outcome data for subsidiary goals at +20 weeks
booster, analysed by Fisher exact probability test

These analyses showed no pair of methods demonstrated
statistically different outcomes at +20 weeks' booster.

The Tables show the extent to which mothers perceived their children as moving towards these individualised goals at post intervention and at 20 weeks' booster. It is interesting that evidence on this measure is broadly in line with that gained via the main measure, the AP score, although the levels of success are not as high.

The evidence suggests several things: first, that there were clear generalisation effects from the parents' applying principles of social learning theory to a child's non-conformity with requests to a wide variety of other misbehaviours.

Second, it suggests that a range of goals can be addressed by parents at once: the number of goals set with parents ranged between 3 - 10. It is not necessary to focus upon one goal at a time; indeed there seems to be some advantage in getting the parent to try to apply the principles in a range of situations in which the child is proving difficult. It must acknowledged that this was a fortuitous decision on the author's part, but she would adopt the same plan again. The mothers seemed to have no difficulty at all in rating the child's behaviour for each goal on the -5 to +5 scale week by week; in fact they seemed to enjoy doing so. They, and I, found much shared satisfaction in the indications of progress as they began to practise the principles more and more firmly.

Thirdly, the data suggests that the interval at which it might be appropriate to plan in boosters in any future work need not be very frequent. That is, as more than two thirds of the children were maintaining at least 60% of their goals to at least a +3 level at a point two to three full months after the completion of the intervention, serious deterioration had not yet begun to occur. It might then be possible to build in boosters at 2 - 3 month intervals - perhaps by telephone in many cases, since this method was no less successful than any other overall.

Fourthly, it seems that parents can be helped to manage quite serious misbehaviours, including aggressiveness, temper tantrums, day and night wetting and sleep difficulties. Almost all the families asked for help with the first two; about half with each of the two others. Only soiling seemed not readily responsive to the social learning theory approach; the brevity of the period of the intervention may be partly responsible.

To summarise this section, at 2 months after the completion of the intervention, 19 of the total of 30 children were still maintaining >60% of the goals negotiated with their mothers at a level which those mothers judged to be at +3 on a -5 to +5 scale. While the data is not available on these goals over the period of the long-term follow-up, the fact that there was such clear improvement in so many serious misbehaviours was a cause for major satisfaction for all concerned.

3   Initial maternal stress and its relationship with the

outcomes for individual children

Having given some attention to the children, it is now

time to consider the parents', or more precisely, the mothers',

levels of personal stress (PS) which they reported at the out-

set, and to examine whether this has any association with the

outcomes for their children.   Table 12.12 shows the data for

mothers reporting high PS (>35) or low PS (<34) during Week 1

of the study, and the outcome, post-intervention, for her

child measured by his or her AP score (stringent criterion).

The method used to try to help in each case is also shown.

Post-intervention

	Success	Intermediate	Fail
	Cell A	Cell B	Cell C
High stress >35 PS	G.T. (Gp) L.S. (HV) L.W. (HV) T.M. (HV) M.J. (Tel) M.D. (Tel) P G. (Tel) M.H. (Tel)	N.P (Gp) M.B. (Gp) R.M. (HV) K.E. (HV) S.W. (Tel) A.B. (Tel)	S.B. (HV) J.H. (Tel) J.W. (Tel) M.C (Tel)
	Cell D	Cell E	Cell F
Low stress <34 PS	L.A. (Gp) A.D. (Gp) N.SH (HV) L.C. (HV) J.E. (HV) C.C. (Tel) M.L. (Tel)	A.S. (Gp) A.T. (Gp) M.B. (HV) S.T. (Tel)	J.C.(Gp)

Table 12.12   Maternal stress (PS) at the beginning of the

study, and children's outcomes.   The mothers are referred

to by their children's initials.

These data too were subjected to a Fisher exact probability test, recognising that the same constraints as applied to earlier analyses using this test also obtained on this occasion.

Analyses of cells	Fisher exact probability (2 tailed)	
A * D, B * E	1.000	NS
A * D, C * F	0.603	NS
B * E, C * F	0.600	NS

Table 12.13 Outcome data for mothers reporting high/low stress at the beginning of the study, and results post-intervention

It is apparent from these analyses that high initial stress constituted no barrier to achieving 'success', >60% improvement, with one's children. The figures show that no less than 18 of the 30 mothers (60%) were highly stressed, but that 14 of them (46.6%) achieved either 'success' or 'intermediate success'. By contrast, of the 12 low stressed mothers (40% of the total) only 11 (36.6%) achieved 'success' or 'intermediate success'. It is true that the high stressed mothers experienced a higher failure rate than the low stressed ones, (13.3% by comparison with 3.3%), but the overall and encouraging indications are that high stress has no clear association with 'failure'.

4   Problems of comparing the progress of individual children

Turning now to a different set of data, Table 12.14 shows the wide range of actual counts recorded by mothers (Neg and Pos) on the data collection sheets. The extent of the range is clear.

Range of negative behaviour counts: 0 - 233

Range of positive behaviour counts: 0 - 218

Table 12.14 Range of negative and positive behaviour counts

Interestingly, both these upper figures arose from the same family, that of J.E. The next highest negative figure was 158 (N.SH) and the next highest positive figure was 192 (TM). Since each count is carried out by a different parent, objective comparison between cases is difficult; each mother is likely to to have interpreted differently the notion of 'instruction not complied with within one minute'. The positive figures are more likely accurately to reflect 'number of instructions complied with within one minute', since instances of compliance would be more clear cut.

A second uncertain feature of the data is whether the graphs do or do not demonstrate discrepancies between parents in terms of the numbers of instructions issued. Thus the graphs on page 247 suggest that the parents of K.C. gave few instructions of any kind, while those of T.M. appear to have gained compliance with an average of 27 sets of instructions daily in one astonishing week! The caveat explained above, however, makes it uncertain whether the data represent genuine differences in patterns of parenting. The notion that parents differ in the number of instructions given does have a prima facie validity; other observational studies, however, are needed to test this assumption.

At the outset, the mean number of instructions issued by parents, across all participants, with which children complied daily was 4.70: the mean number with which they

did not comply was 9.35. At the end of the eight weeks'
intervention the figures were 8.04 and 4.96 respectively.

While acknowledging the limitations of these figures,
they suggest that in the 'average case' parents were fairly
consistent in the numbers of instructions given to their
children each day: about 13 or 14. These data suggests that
the task of bringing up and socialising young children is one
involving much active guidance and behaviour management.

Had we, however, wished to compare specific children, a
more useful method of representing the data for comparison
would be obtained by plotting the percentage of negative and
positive behaviours where

$$\text{\% of negative behaviours} = \frac{\text{negative behaviour count}}{\text{neg. behav. + pos. behav. count \quad count}} \times 100$$

For example, the graphs for M.B. and A.D., page 242, might
suggest that the latter was much worse behaved than the former;
but the latter's parents clearly gave more instructions to the
child than the former. The formula suggested above could
allow for this difference in behaviour style.

5   Rates of improvement: the general case, and departures
therefrom

Examination of the graphs of negative and positive
behaviour reveal some general tendencies in rates of improve-
ment. To consider negative behaviour first, the slope of the

line of best fit for this behaviour for 18 of the 30 children

would be negative, indicating an improvement in conduct.

Variations in the numerical values of these slopes would

reflect differences in the rates at which individual children's

behaviour improved on average during the intervention.

Similarly, in relation to positive behaviour, the slope

of the line of best fit for 19 of the 30 children would here

be positive - again indicating an improvement in conduct.

Here too, the values of these slopes vary, reflecting the

differences in rates of improvement.

For the general case, then, the picture offered by the

graphs is one of gradually diminishing difficult behaviour

and of gradually improving compliant behaviour. If this is

the general case, let us briefly examine some of the depart-

ures therefrom, and some possible reasons for these departures.

In a number of cases, for example J.C., M.BO, K.C. and

A.B., the graph representing negative behaviour is virtually

flat; i.e. the parents reported no change in the frequencies

with which their child behaved non-compliantly following their

giving him or her an instruction. In all these instances

it is the author's impression that the mother had great

difficulty in acting assertively enough actually to

implement the sanction which should follow negative behaviour:

being ignored, or being placed briefly in Time Out. In

the case of J.C., for example, the mother was a quiet and

docile woman, whose husband disapproved of her attending
the group and of behavioural methods of child management.

The case of M.BO was somewhat different, in that this
little boy's compliant behaviour already was markedly
higher than his non-compliant behaviour. It was the fact
that the mother had two other very young children, M.'s
twin and another, even younger baby, which made M.'s
occasional bouts of naughtiness unacceptable. The lack of
change in his rate of change was probably a reflection of
the continuing of fairly manageable behaviour - since there
certainly no need for major improvement.

The mothers of K.C. and of A.B. were very inconsistent in
their application of sanctions, and particularly in their
implementing Time Out. They tried it some day and not others,
or during the day, but not at night, and thus did not enable
the child to learn contingencies in the systematic way which
is known to be beneficial. The mother of A.B. certainly told
the author that she did not like putting the child into Time
Out, and frequently did not do so when he misbehaved. Thus
it is the author's impression that any small gains through
consistency over two days would be cancelled out by incon-
sistent behaviour over the two next. Such a pattern would
account for the low rate of change indicated by the graph.

A number of other children did not conform to the norm
of gradual improvment over the period of the intervention.
Among these was A.S., who, after a difficult period at the
start, when his mother was attempting to practise behavioural
methods, did eventually improve somewhat, only to deteriorate
again later. The mother of this little boy was a single
mother, unsupported by her family, who strongly disapproved
of her efforts to control the child by placing him in Time
out. This mother slashed her wrists during the period of
the course, so desperate was she over A's behaviour: sadly
the combination of her isolation, his wilfulness & aggression
towards the two other children, together with her feelings of
helplessness, all contributed to a failed intervention in
this instance. This disappointing outcome is reflected in
the graph. (Other workers subsequently tried to help the
mother, but the author's most recent information was that he
had finally been received into care).

Another child whose data needs special examination is
S.B., who had had extensive ill-health in early childhood, and
who had been in and out of hospital with chest and other
infections ever since. The young mother, who had herself
grown up in a children's home, had low self-esteem and felt
that she could never manage S. In fact, he improved very
much initially, and the sudden rise in his negative behaviour
towards the end of the intervention is a reflection of yet
another admission to hospital and its aftermath.

The curious data relating to M.L. is a reflection of what

the author felt, over the telephone - as she has never met

the mother - to be a great ambivalence about the ideas which

the author was suggesting. Her little boy was not showing a

serious conduct disorder, and it may well be that it was an

inappropriate referral which the author should not have

accepted. Her initial misgivings were in fact confirmed when

things turned out in the way showed by the graph, and the

little boy was reported as 'unchanged'.

These then are the children who depart from the norm of

the experimental population, and some possible reasons for

these departures. It is now time to consider how the implemen-

tation of specific principles of social learning theory are

reflected in the rates of change in the children's behaviour.

6   The impact of specific procedures

In that the great majority of the children demonstrated a

trend to improved behaviour over the period of the eight weeks,

it is of interest to examine the particular points at which

the impact of the behavioural principles began to be reflected

in their behaviour.

The first week was essentially a baseline data collection

week. The second booklet, which was distributed at the

beginning of the second week, asked parents to try to ignore

their child's pestering behaviour or their tantrums, but to try to attend to him or her when he or she was behaving well. This message was also reinforced in the face to face meetings and over the telephone.

Some social learning theorists have suggested that a 'pre-extinction burst' typically occurs early in the course of a behavioural intervention. Examination of the data for the 30 children suggests that this is the case for only six of the children: J.C., A.S., R.M., N.SH., J.E. and J.W. One further child, C.C., showed a very slight increase in non-compliant behaviour.

This study did not then find evidence to support the hypothesis that the 'pre-extinction burst' is a universally encountered phenomenon. What can be said, however, is that where it was found tended to be in the cases of the more seriously disordered children. It was as though these children who had ruled the roost for so long, tended to put up a fiercer fight before the parents' new strategies of managing them made their original tactics ineffective.

The most clear example of this was J.W., who was two and a half at the start of the study. His calm and devoted mother had been devastated by the cot-death of one child, the death through meningitis of another and the death of her husband; when J. proved also to be vulnerable to breathing difficulties which led to his near death on two occasions, she became

exquisitely sensitive to the finest shades of J's behaviour,
especially at night. She had reached the point of staying up
with the child all night, taking the occasional nap during
night or day, for fear that she might miss his stopping
breathing. The child was utterly beyond control, and resisted
very forcibly indeed his mother's valiant attempts to employ
behavioural principles. As the graph shows, things did very
gradually improve; the deterioration in the seventh week is
a reflection of yet another emergency admission to hospital
after he yet again stopped breathing. This mother won the
author's warmest admiration; to go on collecting data in that
scenario is amazing!

Returning to the group of children as a whole, it will be
seen that for 21 there is a point where the two graphs
cross, which indicates that the child is complying with
instructions more frequently than not. In the typical case
it occurs in week 4 (e.g. M.B., A.B. and L.S.); in a few
instances, such as L.A., it occurs earlier, in week 3, but
there is a substantial number of children where the graphs
do not cross until weeks 5 or 6. These tended to be the most
unruly children, such as N.SH or M.B., and it may be that
where this phenomenon occurs later, here is a situation
where the period of the main intervention should be extended
beyond the conventional 8 weeks, in order to strengthen newly
learned patterns of behaviour. There was no clear corres-
pondence, however, between a late crossover in the graphs
and a report of failure to the independent evaluators.

Summary

In brief, this chapter has suggested that it is possible
to train parents of difficult pre-school children to manage
their children more effectively in the short term, but that
there is a falling away in the effects of this training in the
longer term. The provision of readily available reinforcement
and 'boosters on request' from the trainer might do much to
avoid this falling-away.

The chapter has noted the value of the goal-setting model
as a means of pinpointing specific behaviours which parents
seek to reduce, and it has shown that there is a generalisation
effect as parents begin to practise skills learned in dealing
with one behaviour in their dealings with others.

Finally, the changes in the behaviours of individual
children have been examined, and the difficulties of comparing
one child's progress with another have been acknowledged.
Despite the many areas which call for further investigation,
a general optimism is expressed about what parents can achieve
by the use of principles of social learning theory, and how
these effects can be maintained.

Figure 12.1 .Plot of behaviour counts for J.C. over the period of the study

Figure 12.2 Plot of behaviour counts for A.S. over the period of the study

Figure 12.4 Plot of behaviour counts for G.T. over
the period of the study

Figure 12.3 Plot of behaviour counts for L.A. over the
period of the study

Figure 12.6 Plot of behaviour counts for A.D. over
the period of the study

Figure 12.5 Plot of behaviour counts for M.B. over
the period of the study

Figure 12.8 Plot of behaviour counts for A.T. over
the period of the study

Figure 12.7 Plot of behaviour counts for N.P. over
the period of the study

Figure 12.10 Plot of behaviour counts for M.Bo over
the period of the study

Figure 12.9 Plot of behaviour counts for L.W. over
the period of the study

Figure 12.12 Plot of behaviour counts for R.M. over
the period of the study

Figure 12.11 Plot of behaviour counts for L.S. over
the period of the study

Figure 12.14 Plot of behaviour counts for K.E. over
the period of the study

Figure 12.13 Plot of behaviour counts for N.SH over
the period of the study
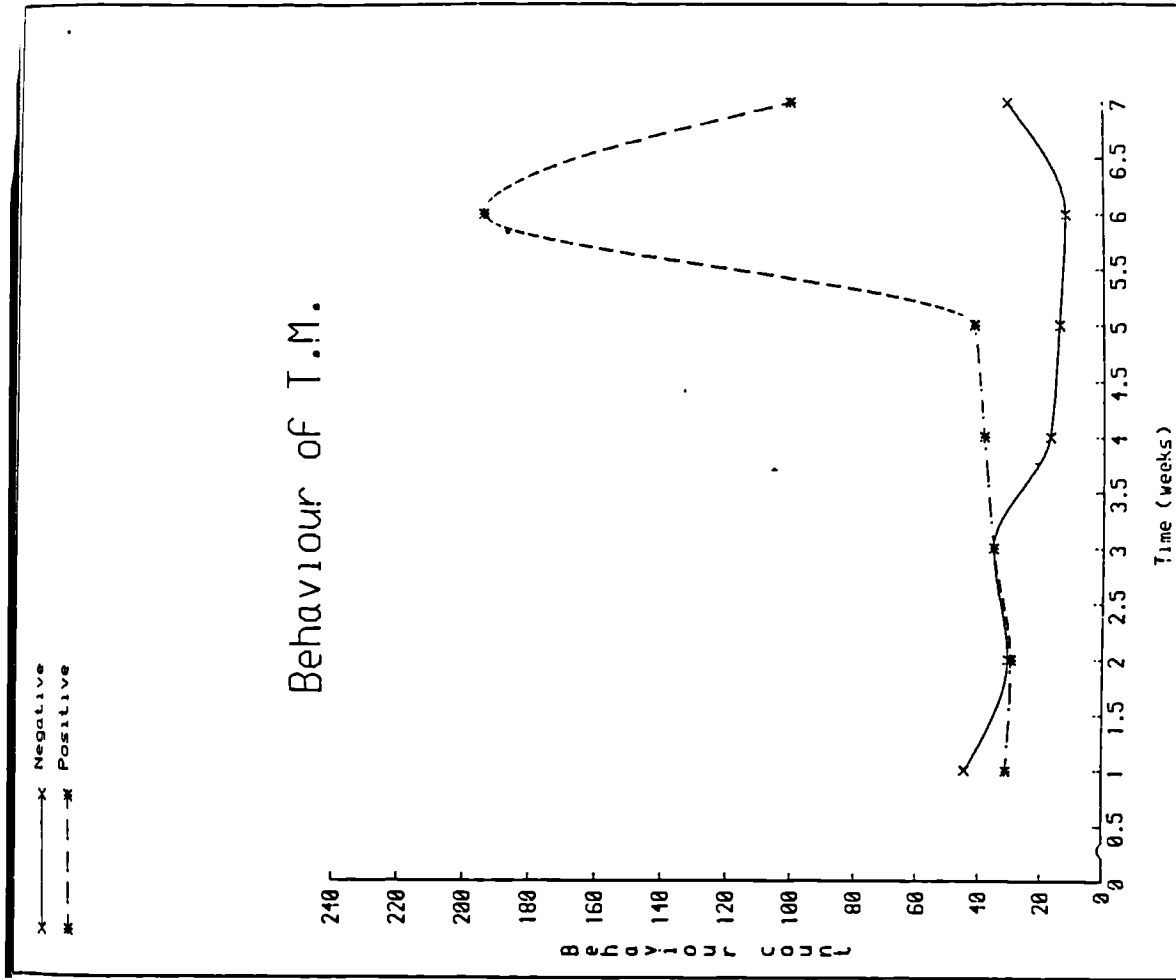
Figure 12.16 Plot of behaviour counts for T.M. over
the period of the study
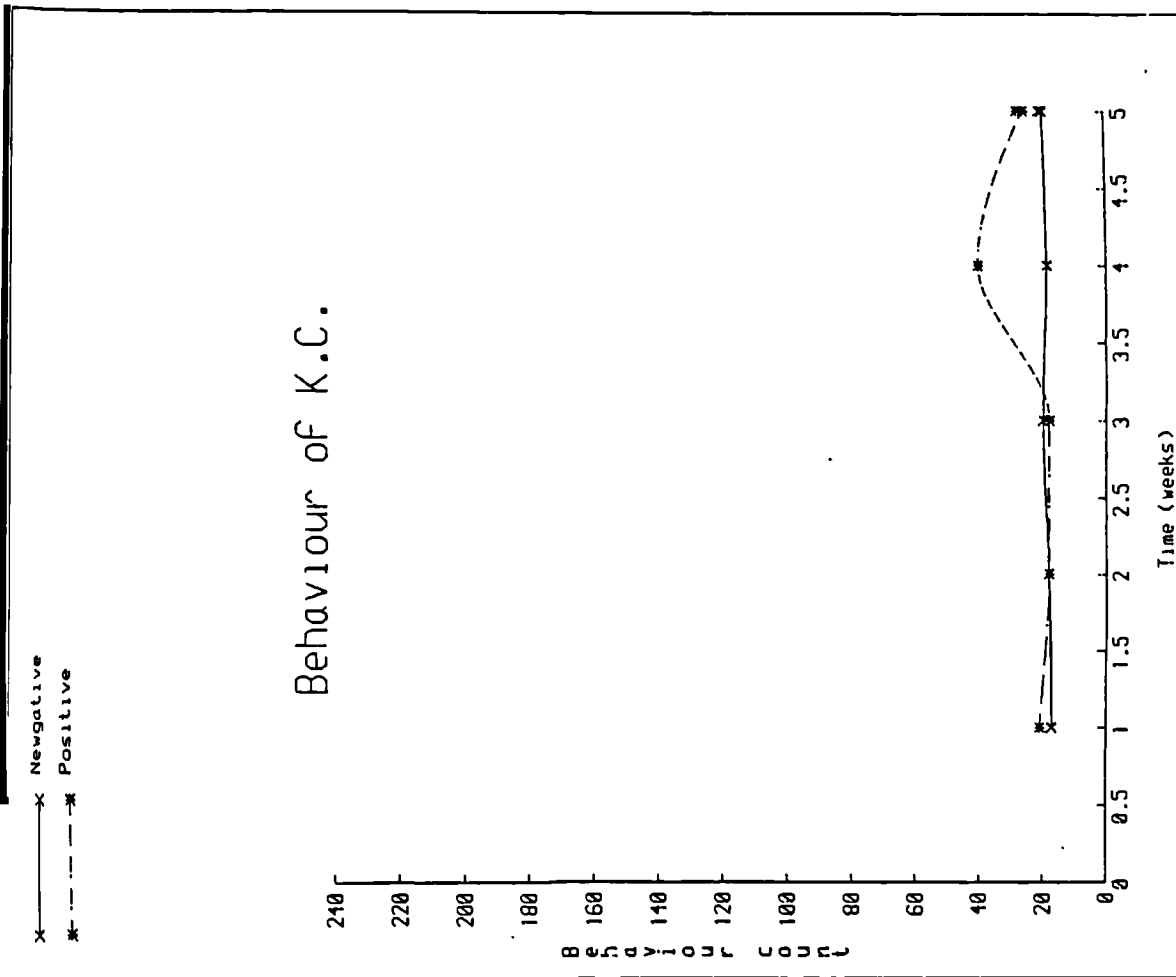
Figure 12.15 Plot of behaviour counts for K.C. over
the period of the study
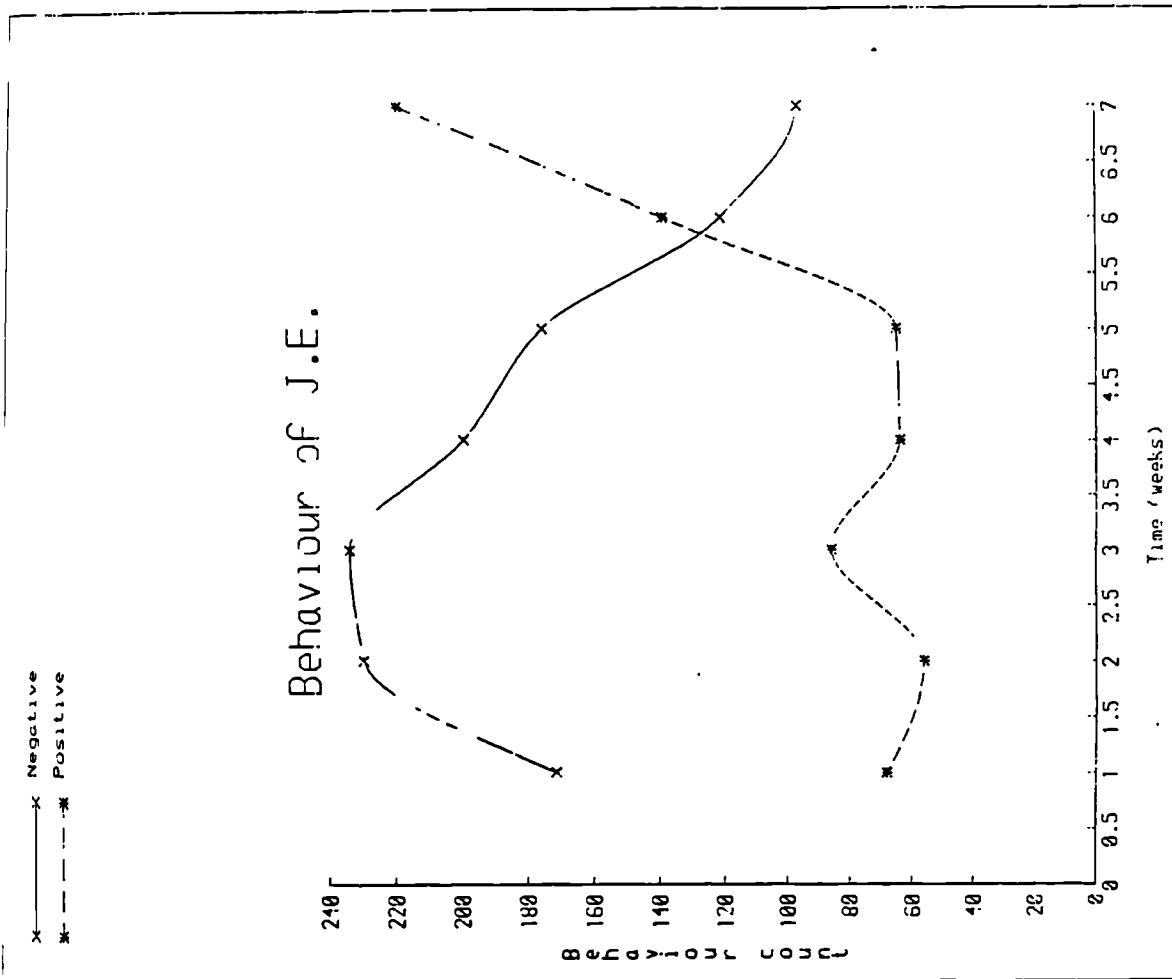
Figure 12.18 Plot of behaviour counts for J.E. over the period of the study
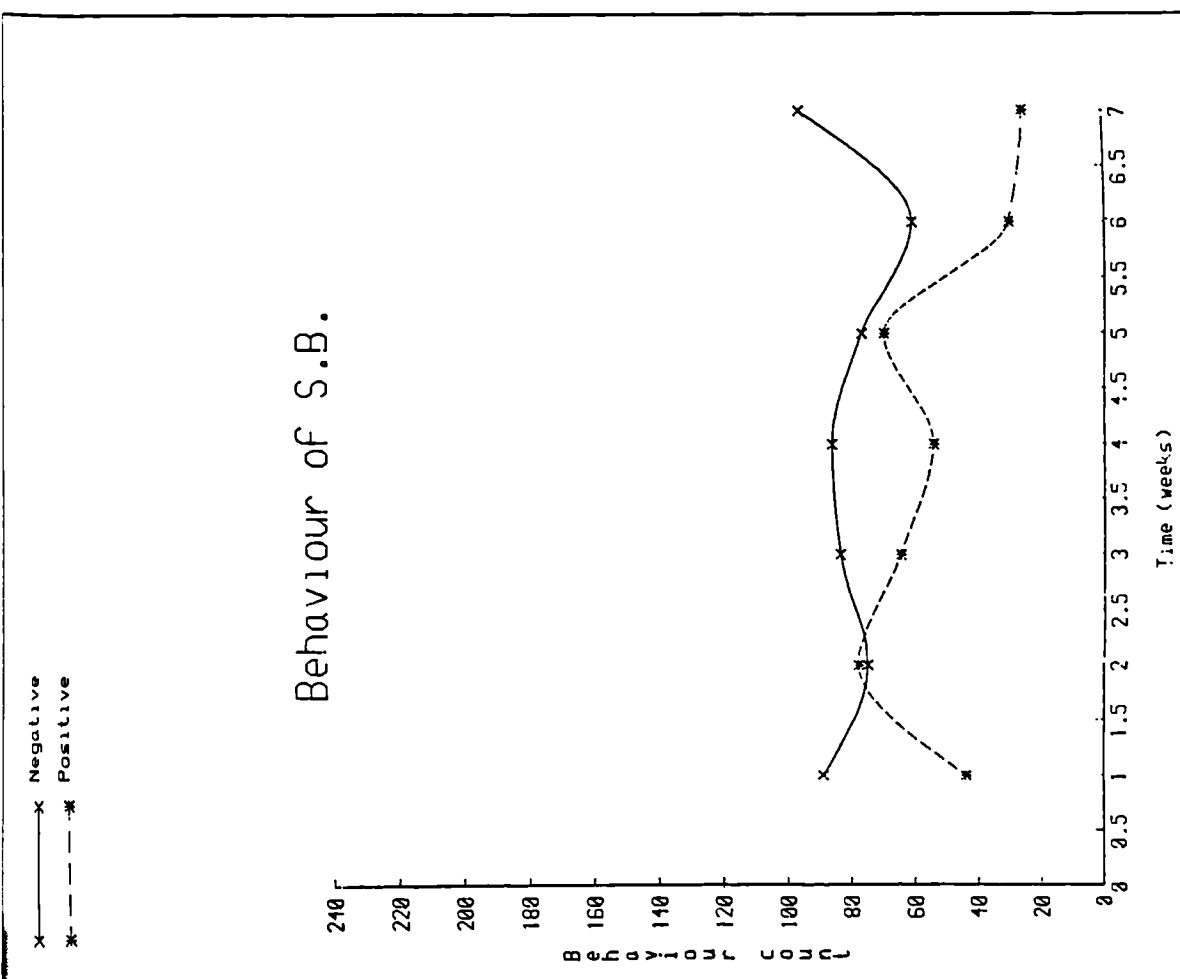
Figure 12.17 Plot of behaviour counts for S.B. over the period of the study
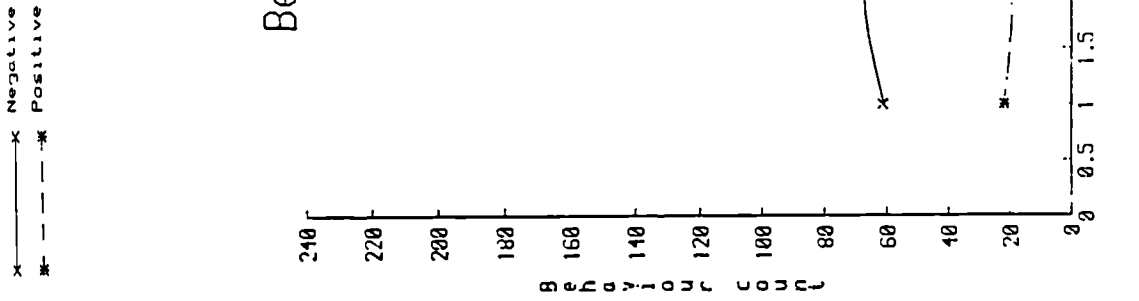
Figure 12.20 Plot of behaviour counts for C.C. over
the period of the study
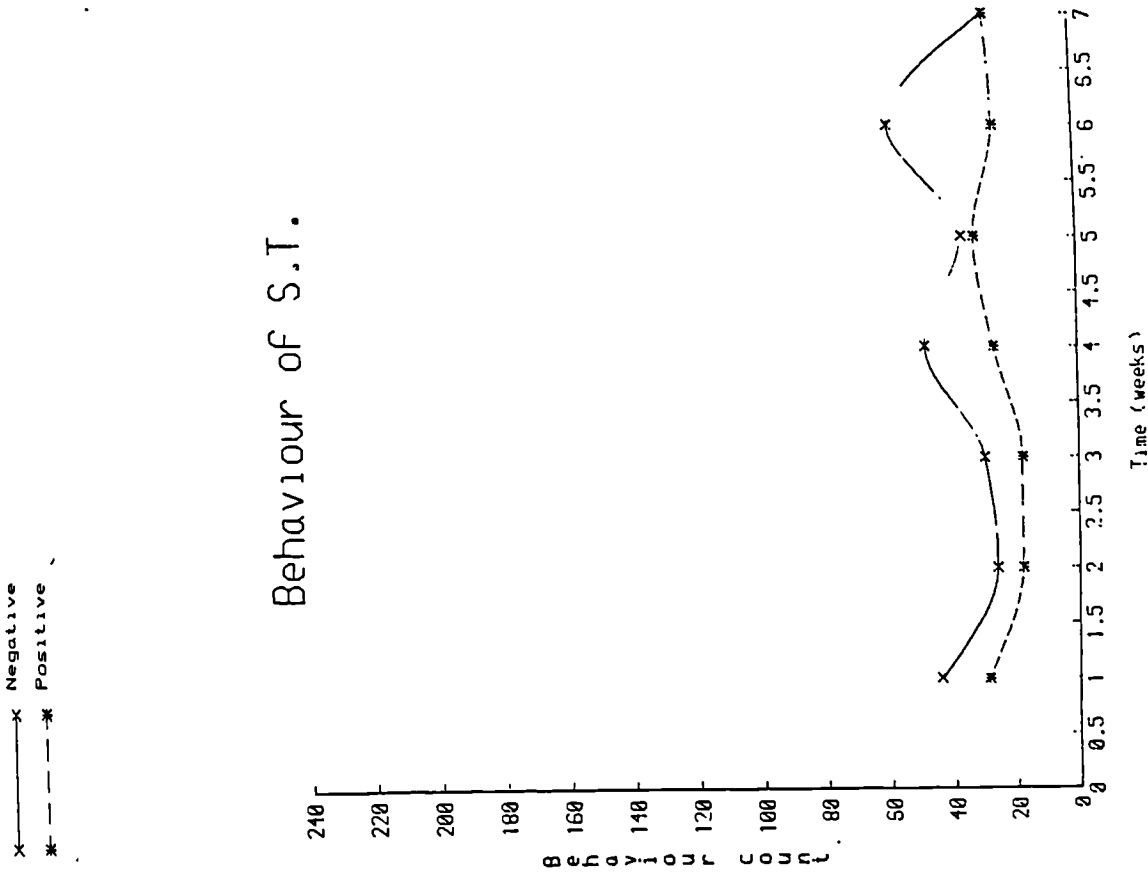
Figure 12 19 Plot of behaviour counts for S.T. over
the period of the study
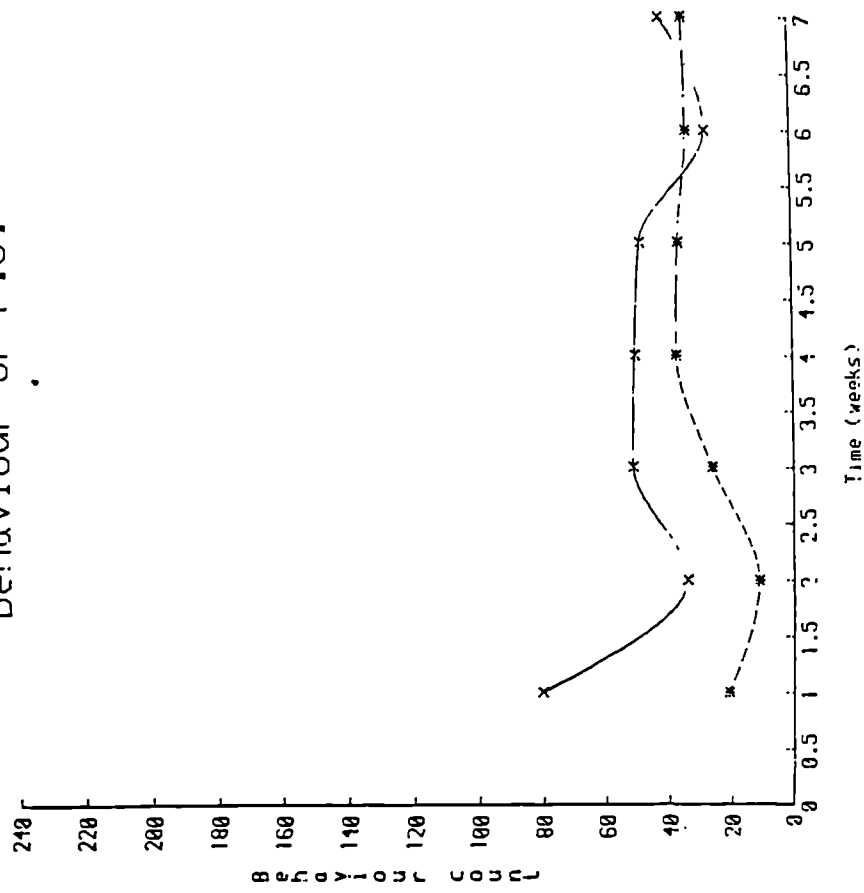
Figure 12.22 Plot of behaviour counts for P.G. over
the period of the study
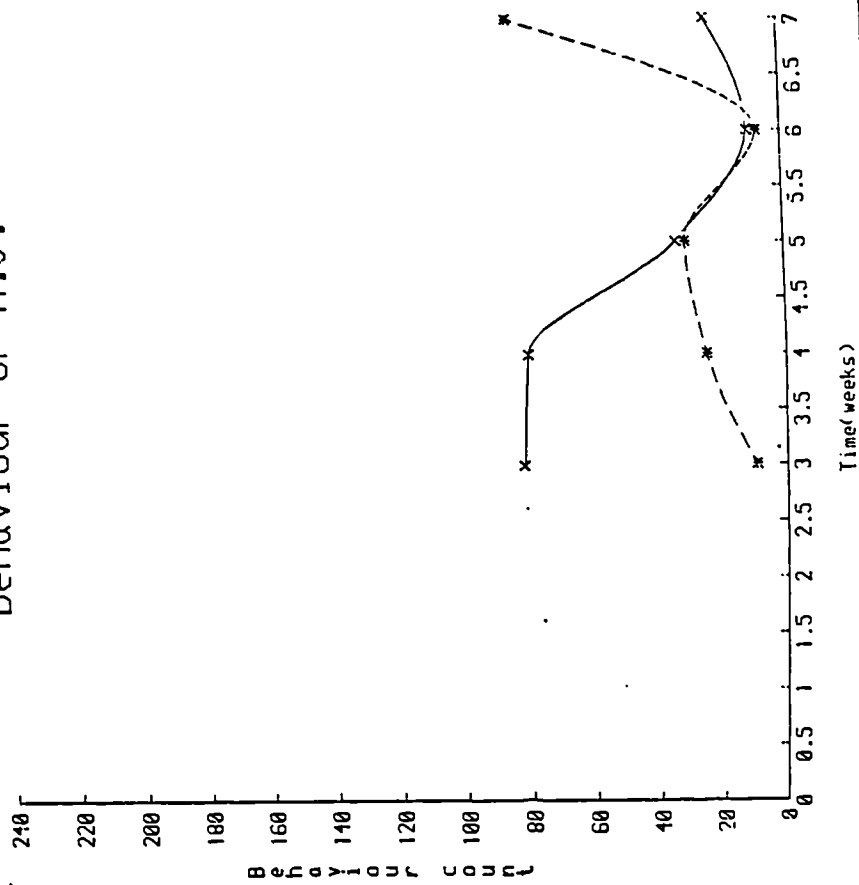
Figure 12.21 Plot of behaviour counts for M.J. over
the period of the study
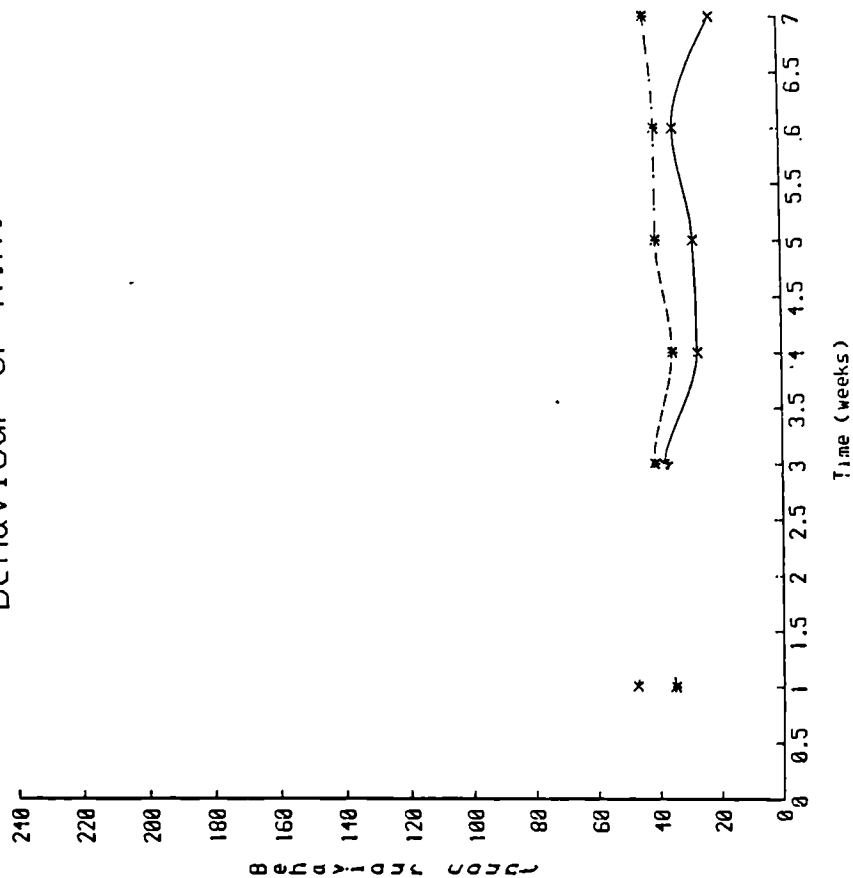
Figure 12.24 Plot of behaviour counts for M.H. over
the period of the study
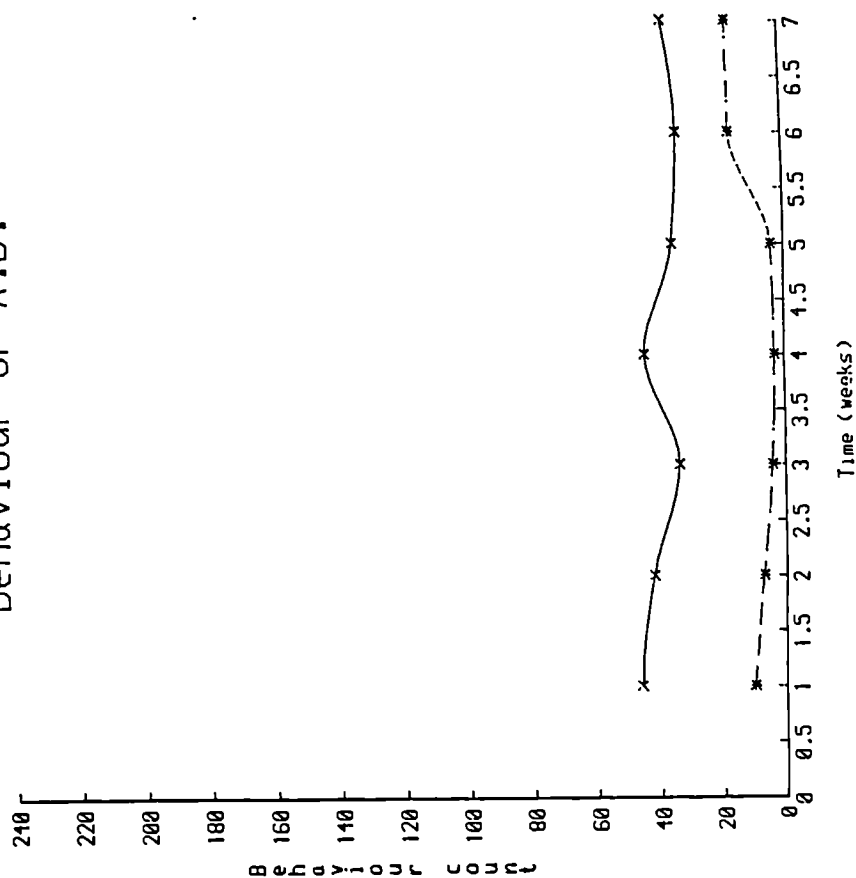
Figure 12.23 Plot of behaviour counts for A.B. over
the period of the study

Figure 12.26 Plot of behaviour counts for M.L. over the period of the study

Figure 12.25 Plot of behaviour counts for M.D. over the period of the study
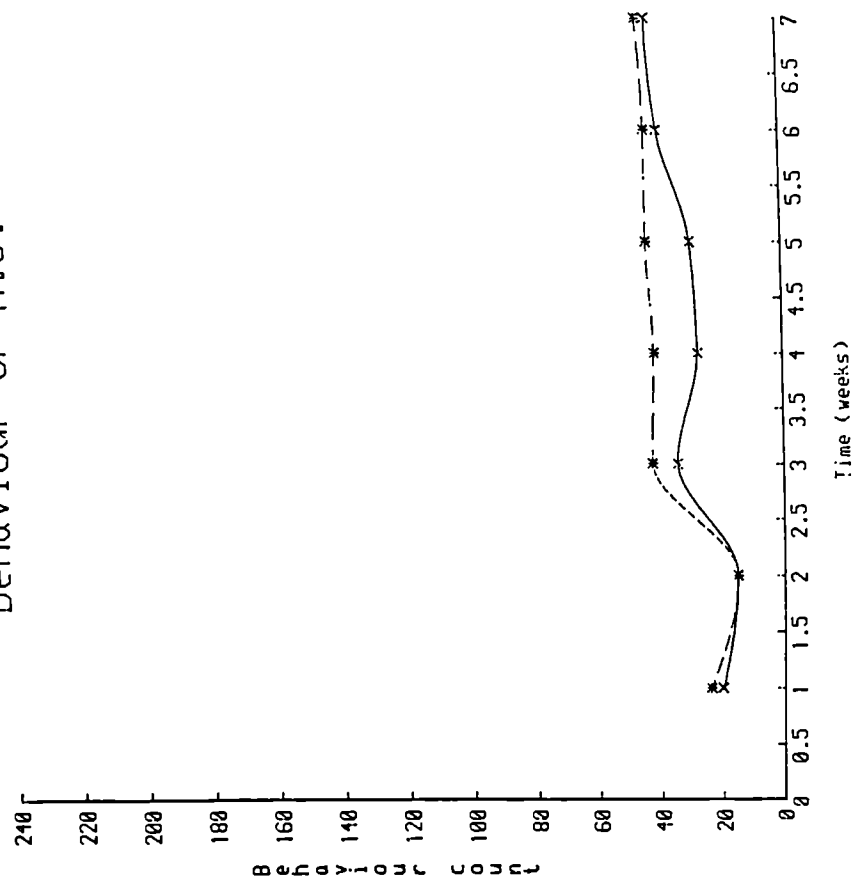
Figure 12.28 Plot of behaviour counts for M.C. over
the period of the study
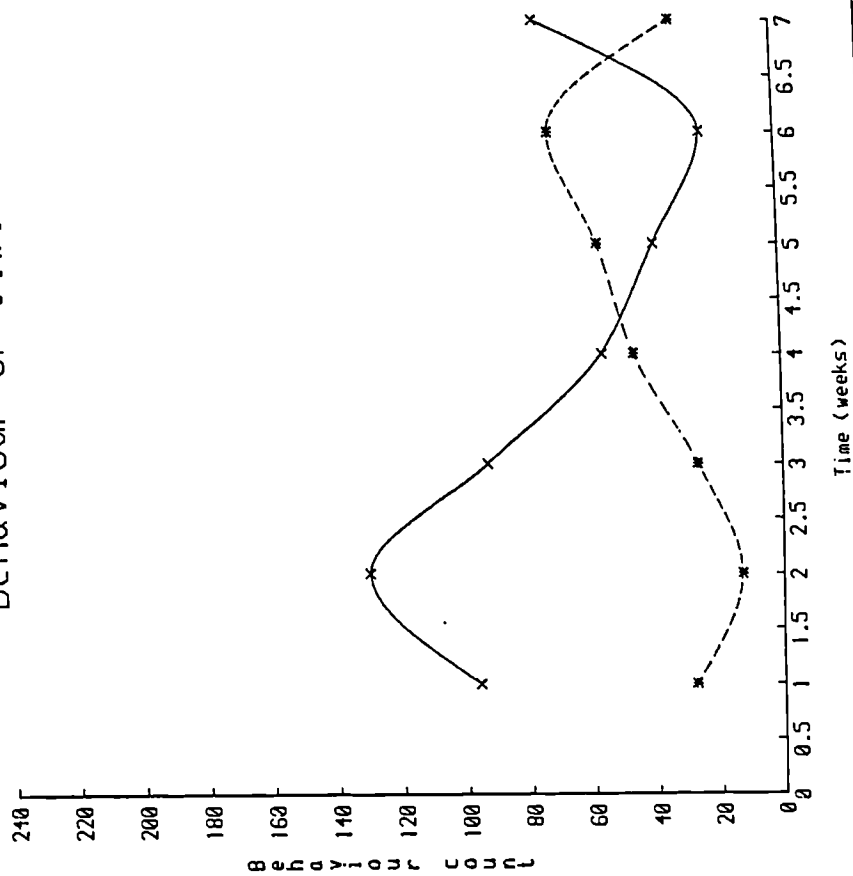
Figure 12.27 Plot of behaviour counts for J.W. over
the period of the study
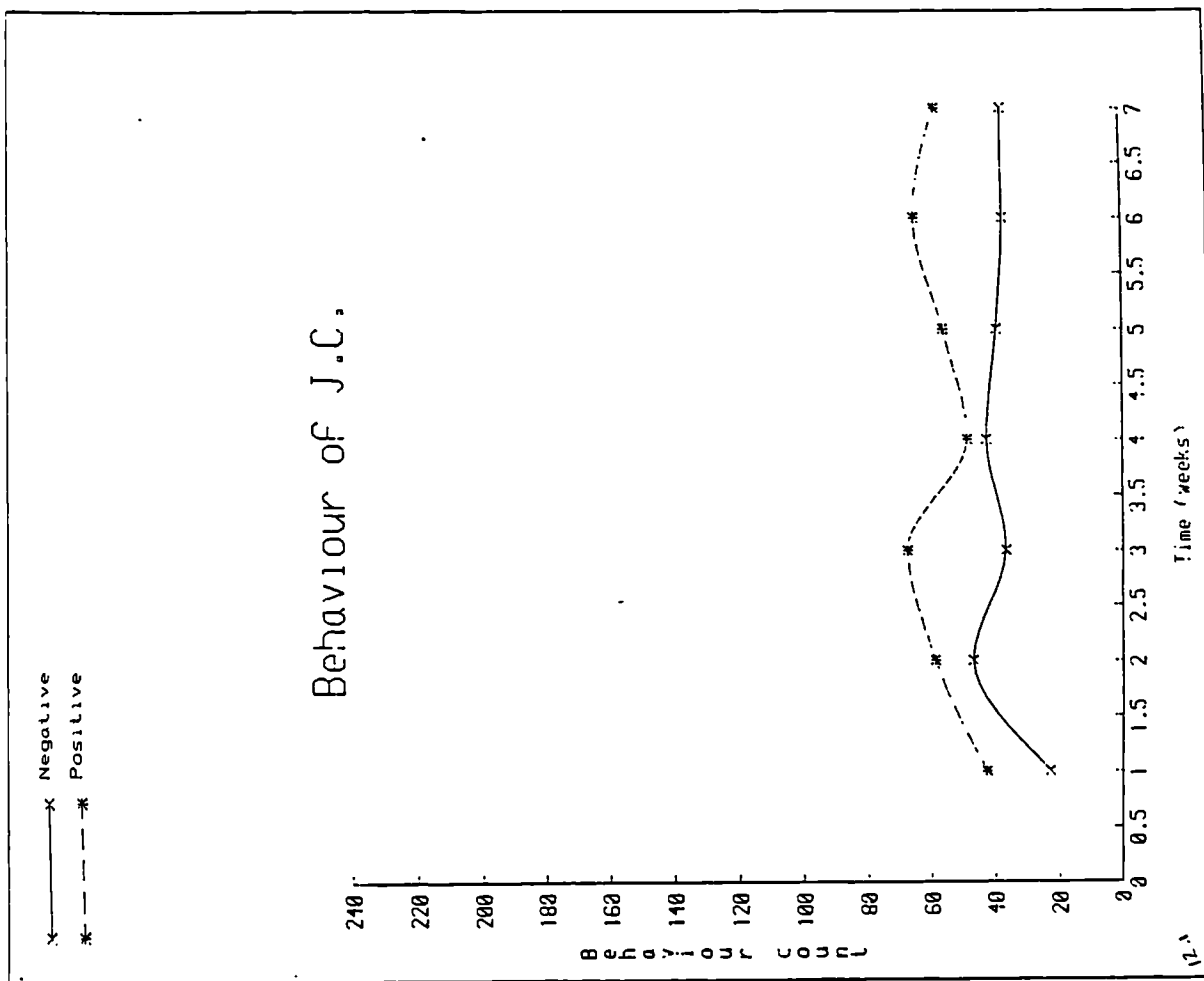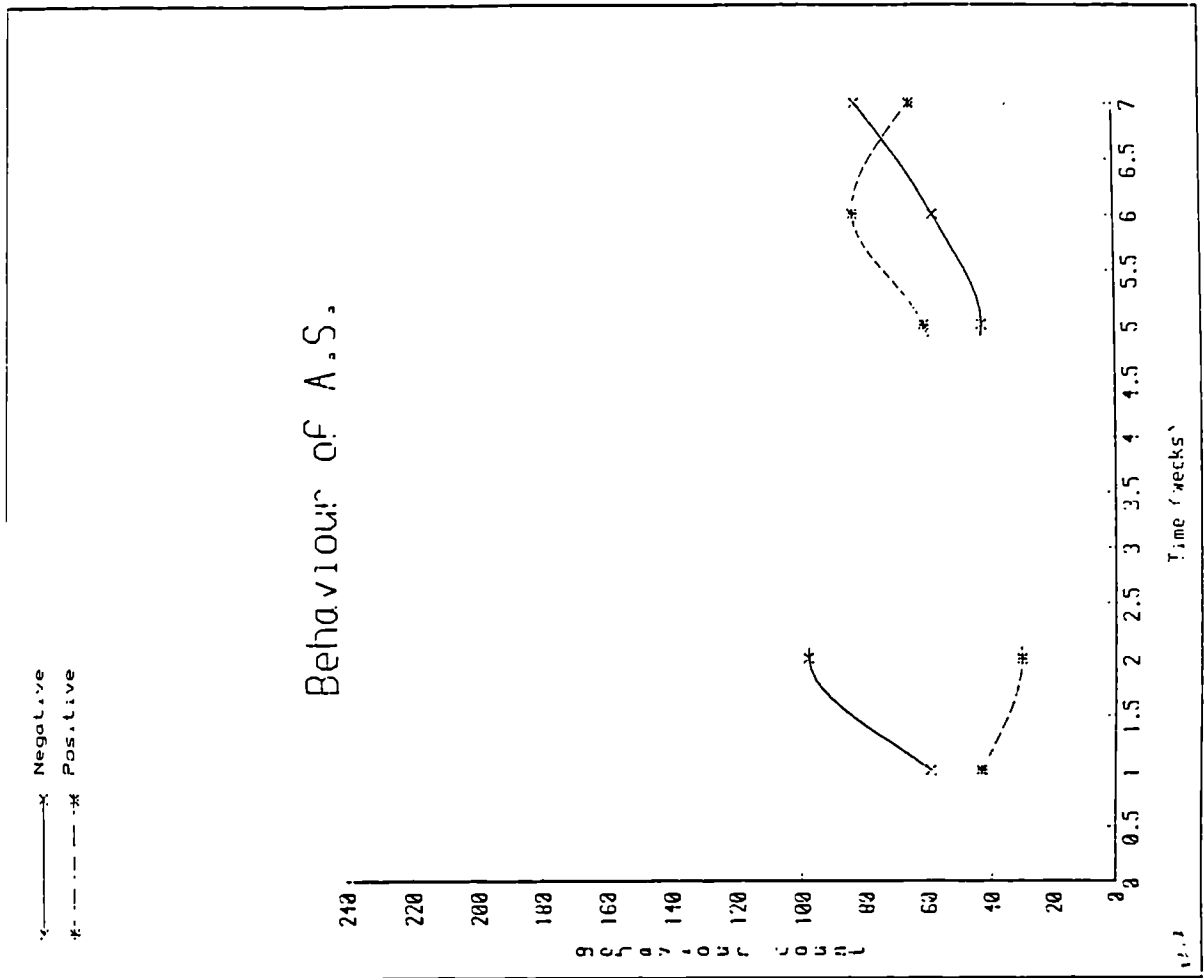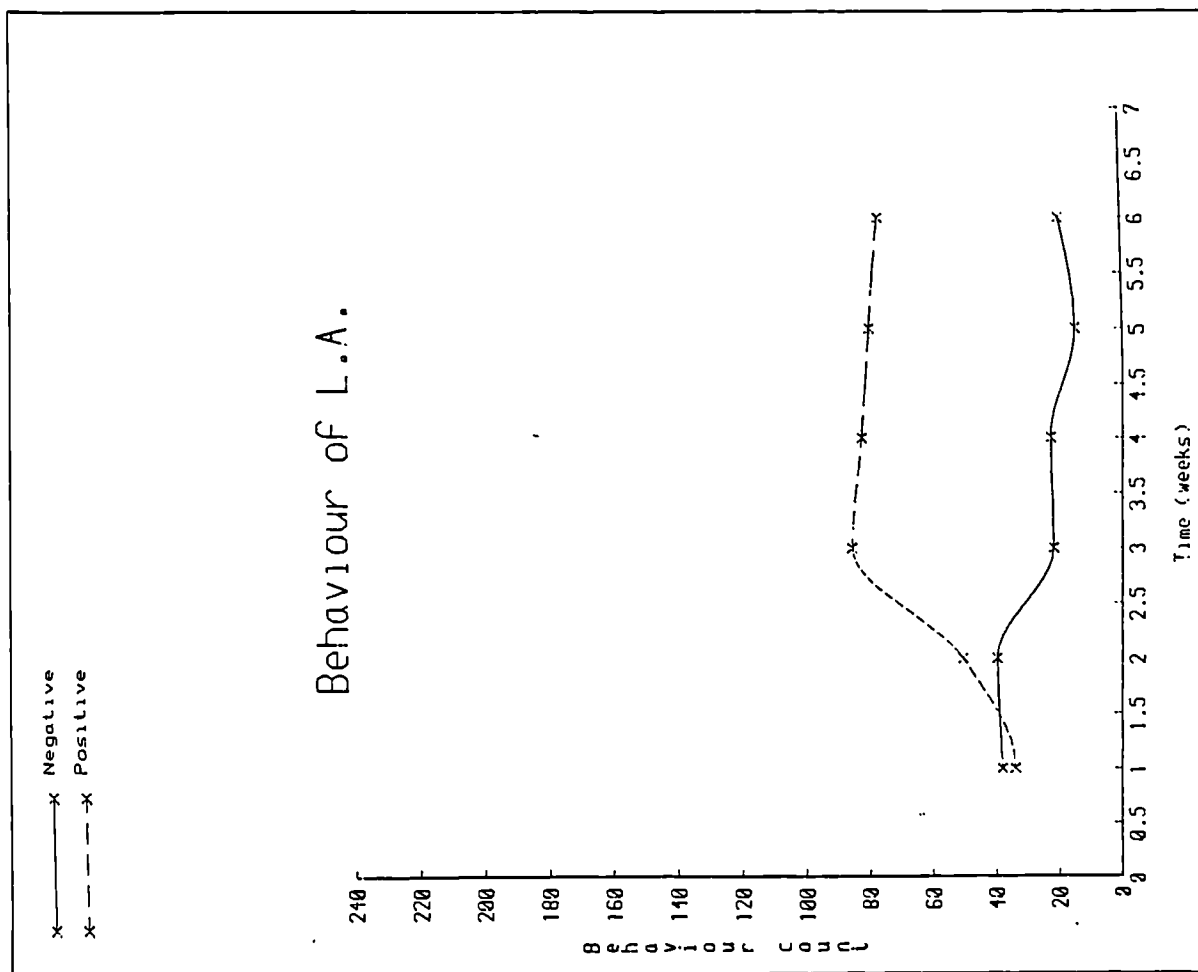
Figure 12.30 Plot of behaviour counts for S.W. over
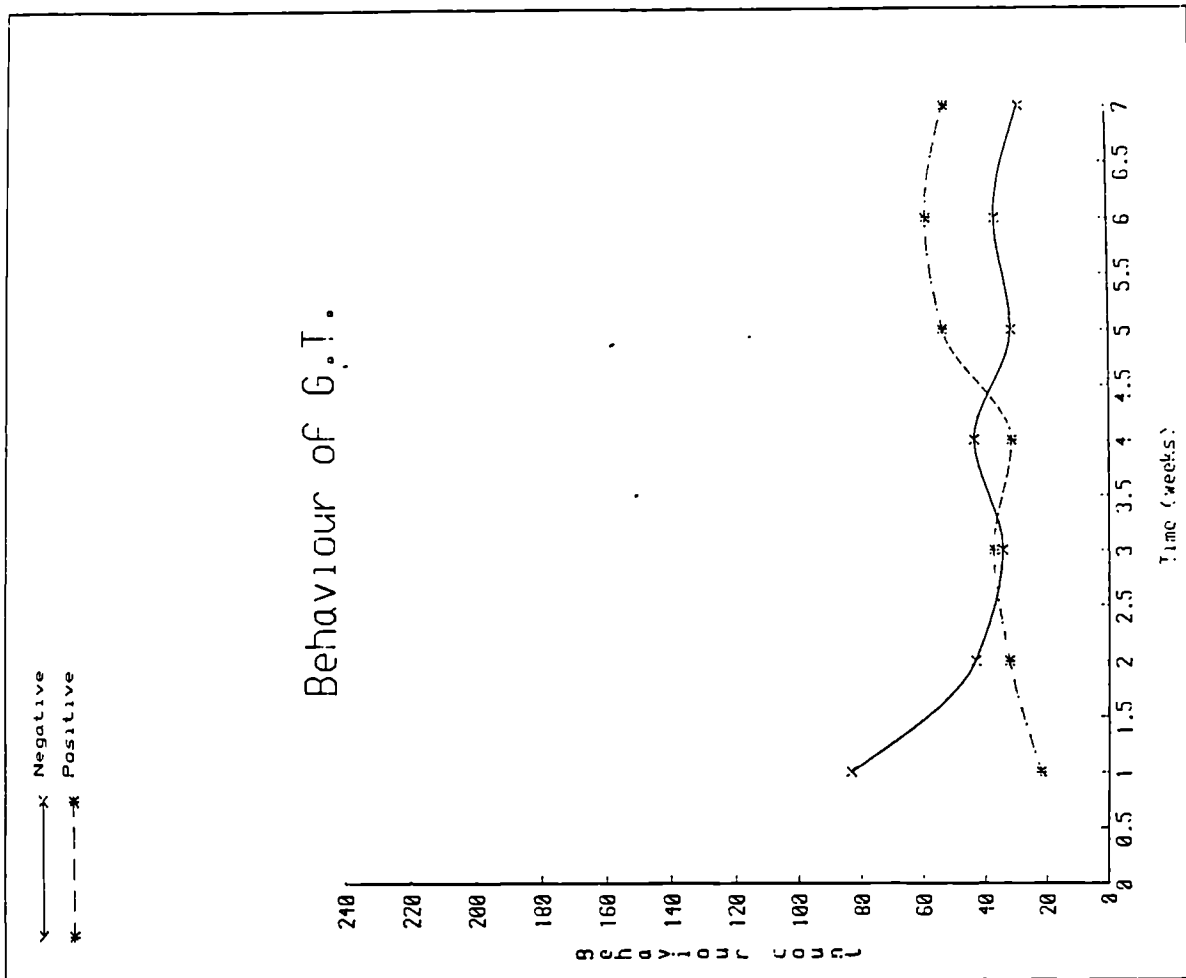the period of the study

Figure 12.29 Plot of behaviour counts for J.H. over
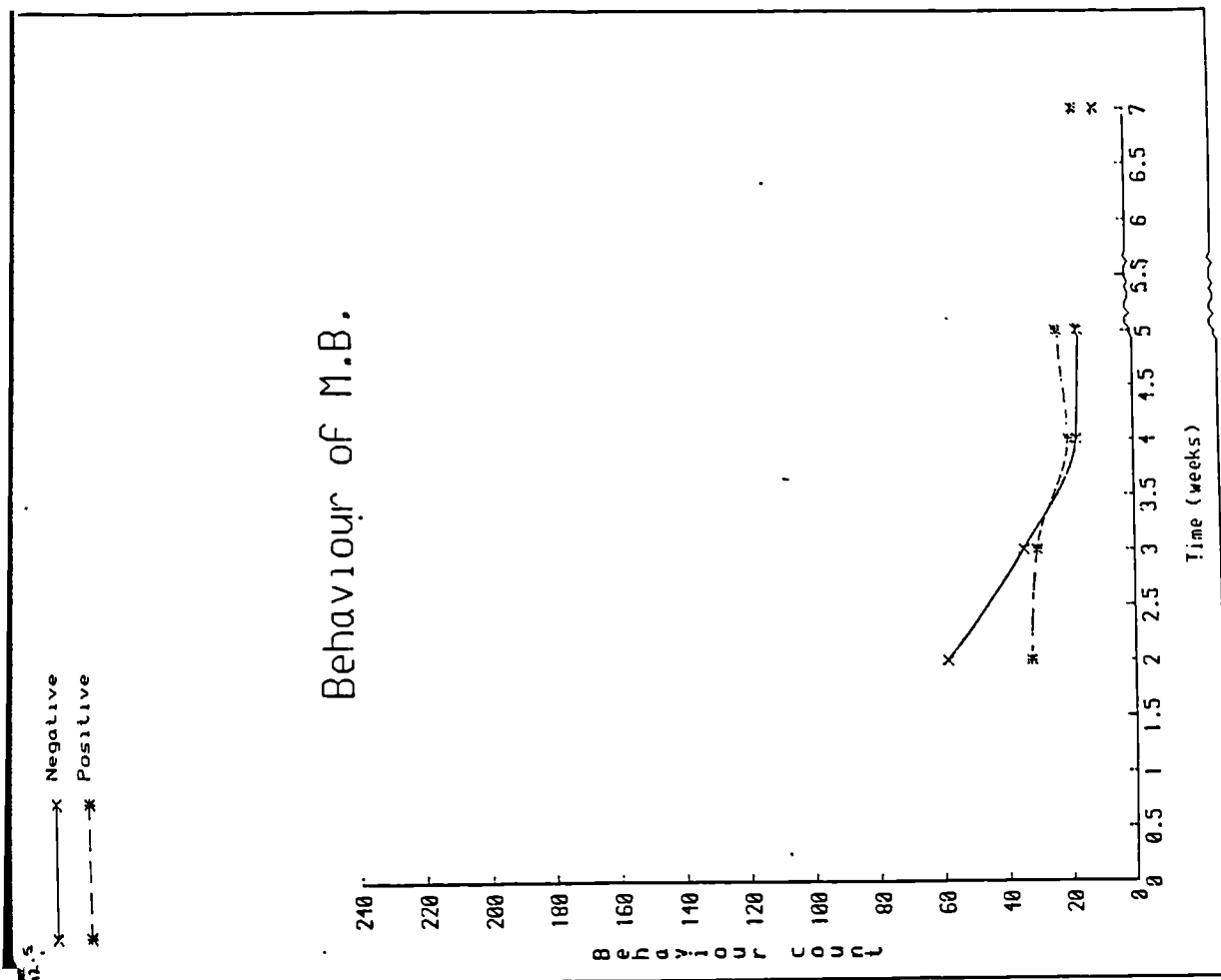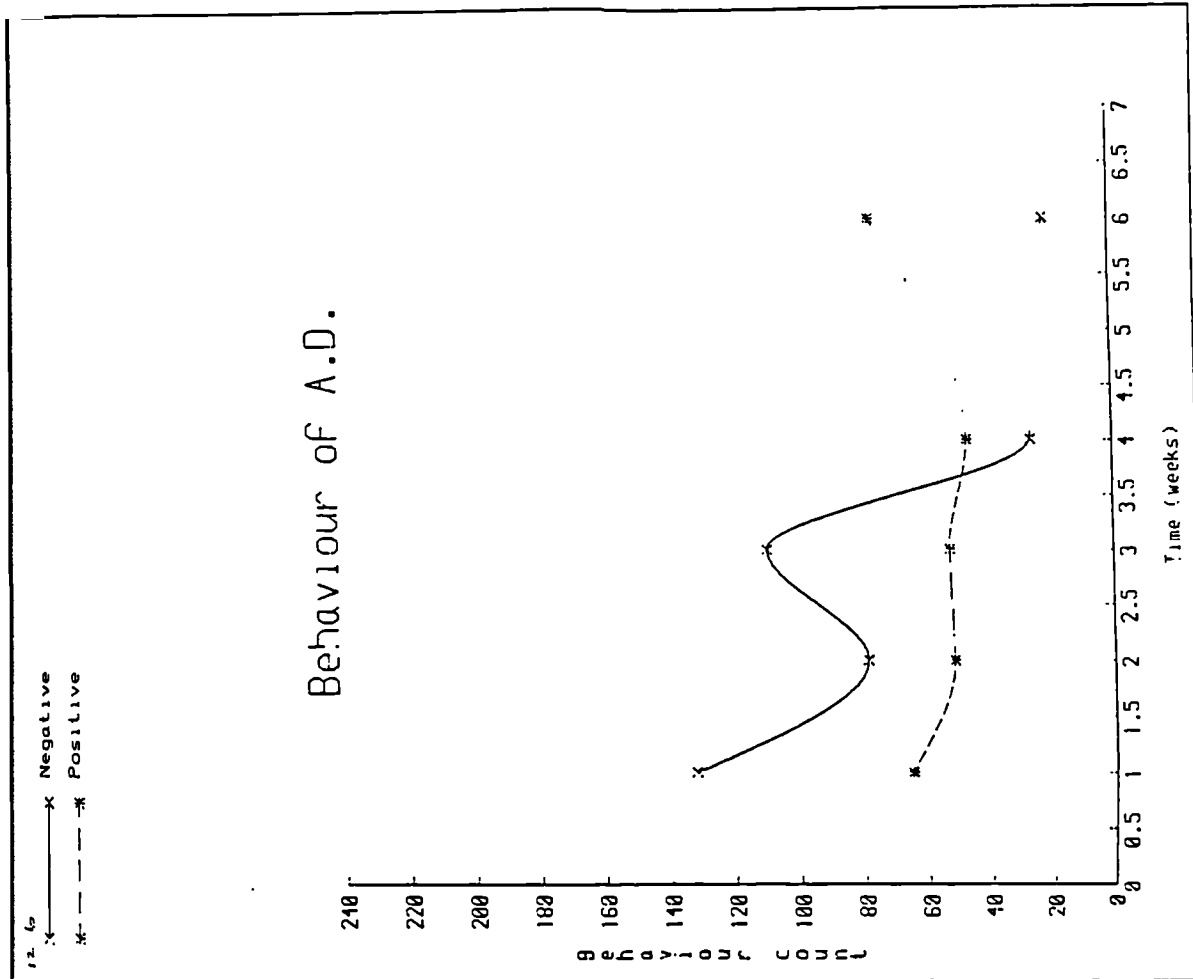the period of the study

Chapter 13

Case studies

In order to convey the nature of the work which was
undertaken, and the types of difficulties with which parents
were dealing, a number of case studies are reported below.
It will be apparent from the Results section that, overall,
there were more cases that could be seen as successful, rather
than unsuccessful, but in order to explore some of the issues
more fully, equal numbers of instances of both types will be
examined. The material is drawn from information gathered
by the author, and from the follow-up by the independent
evaluators.

1   Group method: success for Lewis and his family

The parents of this little boy were both unemployed, the
house was rented from the council and the family did not
possess a car. The father had been married previously, having
three children of that marriage who had not shown behaviour
problems.

Lewis was aged two during the period of the course, and
the parents said that the difficult behaviour had started
when he was one year, eighteen months. They said that his
awkward behaviour was at an extremely high level, although
they persistently 'tried to exhaust him'. Lewis's sleep
problem was identified as the major cause for concern; he
would sleep for a few hours, and then only in his parents'

bed. 'It seemed as if he had better things to do than sleep', they said. This created relationship difficulties between the parents, and the father resented the amount of time which the mother gave to Lewis, calling him 'a mammy's boy'.

The mother felt guilty about Lewis's behaviour. She was unable to control him, and thought that Lewis 'would hate her if she told him off'; this made her fearful. The parents tended to 'let Lewis get on with it - to keep the peace'. The mother did not enjoy Lewis as a child; he followed her persistently wherever she went, and she often 'felt like strangling him'; she could 'understand why people battered children'. When the situation became desperate, and the father was out, she would leave Lewis with a neighbour just to get away from him for a few minutes.

Lewis's difficult behaviour tended only to occur with the parents: he was 'a different child when out'. The parents had consulted a G.P., who told them that Lewis would 'grow out of it', but offered no solutions. Subsequently, the parents responded to an advertisement about the course in a local newspaper, but only after intense family pressure and encouragement to do so.

In the post-intervention evaluation, the parents had forgotten the precise goal of getting Lewis to follow inst- ructions, but said that in general, and in respect of other difficulties, such as the sleeping problem, he had improved from a ranking of -5, indicating very great problems, to +4, only one point below the +5 which would indicate that a goal had been fully achieved.

The parents stated that the frequency of difficult behaviours had gone down, but initially after ending the course, Lewis's behaviour was much worse. He subsequently 'calmed down'. At post-intervention he was sleeping from 8.00 p.m. to 7.00 a.m., and from 4-5 nights a week in his own bed. The parents had gradually altered the bedtime by bringing it forward from 11.00 by small increments. Lewis would now play well for increasingly long periods, by himself, and he no longer persistently followed his mother about. Relationships between both parents and the little boy were markedly improved, and each enjoyed playing with him independently.

The parents' knowledge of behavioural principles at post-intervention was found to be excellent; they understood the need for attention to prosocial behaviours and for ignoring maladaptive behaviours. They made frequent and appropriate use of Time out procedures: when Lewis was initially non-compliant, the parents gave a first firm instruction, then a threat and if there was no change in his *behaviour*, *he was* removed to the hall for a few minutes. They understood the need for immediate reinforcement, and also the beneficial effects of positive reinforcement.

Relationships between the parents had also improved: the evaluator reported that when asked what would have happened if they had not been in touch with the author, they laughed and then more solemnly said, 'We'd definitely be split up'; the mother was sure she would not have been able to cope.

At 17 months follow-up the gains were maintained.

2 Group method: little success for Mark and his family

The parents of this little boy were separated, and the mother was living alone in an open-plan house. Mark was aged three at the time of the referral, and the mother had reported on the application form that he was allergic to all dairy foods, but that the Consultant at the Leicester Royal Infirmary did not feel that this condition was linked to his difficult behaviour.

Things so fell out that Mark was allocated to the Waiting list control group. Things deteriorated during this time, in that having initially scored 17 out of a possible 20, he scored 18 out of a possible 20 at the end of the waiting period. When the author spoke to the mother in July, 1984, she was 'fairly desperate', spoke of a 'very bitter relationship' with her former husband and 'was not sure if she could keep her hands off the child'.

Mrs. Baker joined the group which started in the Autumn 1984, and entered swiftly into its spirit. She clearly felt supported by the other members, attended regularly and undertook all requested tasks.

There was an initial improvement in Mark's behaviour. By the third session Mrs. Baker reported that she felt she now 'had the upper hand' and that 'things are quite good - a big improvement in our relationship' and at the fifth she reported that Mark was 'considerably better most of the time'. By the seventh session however she had abandoned her efforts to manage Mark, and had completed no records.

At this session Mrs. Baker was very dispirited, and had

wondered whether to come to the group. Her words were,

'I've given up .... I can't get him into Time Out.

He keeps getting out ... I tried to hold him in ...

He knows he's won'.

Mrs. Baker was given much personal support by the group

and continued to attend all the meetings. At the first

booster session she had had to take to smacking him again, and

this had had a big effect as she had not smacked him before.

At the second booster session, three months later, Mrs. Baker

reported that she still could not use Time Out for two main

reasons: first, that her open-plan house did not have any

spaces easily accessible places which were out of people's

attention, and second, that if she ever did succeed in getting

Mark to sit on a chair facing the wall for a few moments, he

was strong enough to get up and away from it whenever he

wanted. Mrs. Baker reported,

If I try to ignore him, he'll do anything to gain

my attention. He'll break china, throw a chair at

the window, pour water over the floor...

With another mother, Mrs. Baker had worked out for herself

another strategy for dealing with Mark, that of saying to him,

'I've had enough; go away and don't come near me ...!'. She

felt that this was having some slight effect upon him. The

author encouraged her to continue to use this approach.

At follow-up, some eleven months later, Mrs. Baker's circumstances had not improved. The report of the independent evaluator read:

> According to Mrs. B., although two of M....'s target
> behaviours had improved, on the whole she felt that
> M.... was as bad, if not worse than ever. She said
> she felt worse at follow-up than before the course
> as she had expected M ... to improve with age. Some
> of M ...'s problems had intensified since the course,
> notably his temper tantrums.
>
> Mrs. B. said the course had failed for her and she
> attributed this mainly to her inability to get M ...
> into Time out. She felt she would have liked a much
> more intensive course, possibly with daily visits from
> the therapist.

Post script

In view of the very discouraging finding from this family and the author's concern for Mrs. B. who had done all that was asked of her and to the very best of her ability, the author, upon reading this follow-up report, arranged for a colleague, Mr. D. B., to pay a series of additional booster visits to the home. Even he, with all his experience, was however largely defeated by the difficulties in arranging effective Time out - for by then M. was even stronger and more able to resist exclusion.

Such situations clearly pose a considerable challenge to those who seek to intervene in children's behaviour disorders; this issue will be discussed further below.

3   Home visit method: success for Johnnie and his family

The parents of this little boy were both unemployed·and
lived in a council flat upon a large estate near the centre
of the town. The father had been married previously and
there were two children of the present relationship. A step-
son of 20 also lived with the family, making living conditions
fairly cramped.

Johnnie was aged two and a half during the period of my
visits to the home, and the baby was nearly one year. Mrs.
Ericson said that she had experienced post-natal depression
following the birth of the baby, a year or so before, and
this had made it extremely difficult for her to cope both
with that baby, and with his elder brother, Johnnie.

The family reported many difficulties: in addition to
scoring 16 out of a possible 20 on the Application form, they
reported a 'very bad temper - screams and kicks'. When the
author herself observed Johnnie, at the start of the sequence
of home visits, he roamed restlessly around the small flat,
demanding and getting his choice of television programme,
which he abandoned a moment later; taking his brother's toys
thus leading to screams from the baby; and constantly
shouting at his parents to meet some passing whim. They both
watched him with fearfully, uncertain whether to give in or
to try to withstand his demands.

Things did not get off to an easy start; Mrs. Ericson
found the approach difficult to understand, and had real

and practical problems over data-collection. She and Mr.
Ericson were willing to 'give it a try', however, and were
reassured by the author's accounts of her difficulties with
her own child. They were also willing to try a different
approach because, as Mrs. Ericson said,

Hitting doesn't work - I've been hitting him for

two years and I know it doesn't work.

The weekly records of Johnnie's problem behaviour showed
frequencies which were among the highest in the whole study,
and this behaviour was extremely resistant to change. The
author had real worries about the reliability of the theory
concerning the 'pre-extinction burst' when working with this
family, for Johnnie's behaviour deteriorated to the point when
the mother was in despair, and on the point of giving up.

The author urged the regular implementation of Time out
and this was faithfully practised; the appointed place was
a rather dull hallway. To everyone's relief, on the fourth
visit, Mrs. Ericson reported that although she had had a
rough week, Johnnie had accompanied her calmly and quietly
to the shops, an astonishing and unknown event. Such visits
had formerly been acutely distressing for this mother, because
Johnnie had known precisely how best to humiliate her in
public by fearsome displays of temper - in order to get his
own way.

By the sixth visit, things were even better, and the link
with the regular implementation of Time out was more clearly
apparent. Mrs. Ericson reported that she has practised it

twenty times on one very bad day, but, she rejoiced,

> I've got through to him! Now I have to put
>
> him out only once or twice a day - and even
>
> when we're out shopping I say, 'When we get
>
> home you'll go in Time out ...'.

Mrs. Ericson was backed up in her new methods of handling Johnnie by her partner, and she reported not only were neighbours noting that Johnnie was a lot calmer, but that her sister was using the same approach with her five year old little girl, and she had seen an improvement in less than a week.

One additional pleasing outcome, which the author had not anticipated, was Johnnie's becoming far more affectionate. On the seventh week, Mrs. Ericson volunteered happily,

> He never used to cuddle me, but now he'll put
>
> his arms round me and say, 'I love you Mummy.
>
> Six or seven times a day he'll come up and
>
> say, 'I love you Mummy'.

This happy state of affairs persisted over time; at the end of the course Mrs. Ericson said that whereas she had hated Johnnie, he was now 'a wonderful child to live with'; at the three months booster, he was 'a marvellous little boy' and it was 'lovely to take him out'.

The independent evaluator's report at follow-up indicated that both quantitative and qualitative data showed that these gains had been maintained; his parents now saw Johnnie as 'a normal little boy'.

4   Home visit method: no success for Kevin and his family

This little boy, aged 2, was referred by the G.P. to whom

his mother, who was living for the most part apart from his

father, had gone in desperation. The immediate cause of her

seeking help was that she had taken him to town on the bus

but because of his incessant screaming, she had been asked

to get off. In general, he was extremely restless, excitable

and would not do as he was told. She felt it was no good

smacking him and said, 'You feel so infuriated you could

kill him'. He was also extremely impatient, and screamed

'as if he were releasing a valve'.

Kevin had had a difficult start in life. He had had

pneumonia at 1 week old, and was in intensive care for a week.

At 6 months he had fractured his skull, having fallen out of

a baby bouncer. His mother felt that these two events had

caused a rift in their relationship, and she spoke sadly of

how she could never cuddle him: he shrank from cuddles, and

went on 'like a whirlwind'.

Additional problems were that Kevin would sleep for only

2-3 hours and would then wander the house. The most difficult

time was shopping, when he threw things into the basket and

would climb into the freezer.

The course of work with Mrs. Easton followed the usual

pattern: she collected regular data, and on the third visit

after she had begun to practise Time out, she reported with

satisfaction that Kevin was more affectionate and had given

a kiss. On the fourth visit, Mrs. Easton said that Kevin
was behaving even worse during the day, but he was sleeping
well at night, and this helped the whole family. Further,
Kevin was actively coming to her for comfort when he had
hurt himself, and his mother commented,

> I feel I'm making a little progress. I feel he's
>
> got a little respect for me .... His will was law.

During this fifth visit, the author noted that Mrs.
Easton was still giving repeated reprimands to Kevin, but
without acting upon them or removing him to Time out. She
tried to point this out, emphasising how crucially important
was consistent handling in this respect.

Happily, things continued to improve during the course of
the intervention for this family. On the eighth visit Mrs.
Easton said that he had 'been really good', and that there
no longer any difficulties concerning sleeping. At the
first booster visit, at two weeks after intervention, things
were still going well.

Five weeks later, however, in April, 1985, the author
received a message for urgent help. All the progress had, in
Mrs. Easton's eyes, been lost and, it was reported,

> He won't do a thing we tell him: (he) must have
>
> it now!

and,

> I put him out and then I go to him and say 'Are
>
> you going to be a good boy?' and he says 'No!'

With some difficulty the strategies of the intervention were reinstituted, and within 3 weeks Mrs. Easton felt that she was 'back on course'. During the visits of this period the author had spent one lengthy visit listening to some of the personal difficulties which Mrs. Easton was encountering within her marriage, and which almost certainly must have contributed to the extreme tension she was experiencing. At the follow-up to this brief sequence of booster visits, Mrs. Easton felt she was coping, though Kevin continued to be extremely strong willed. Interestingly, he now attended a playgroup, and while he was seen as active and lively, no difficulties had been reported by the leaders there.

At long term follow-up however, the independent evaluator reported,

> Mrs. E. now feels K..... has reverted back to non-
> compliance and screaming fits; 'it may be a phase
> he is going through but he is up the night a lot
> more now - 3 nights a week, whereas once he slept
> right through'. He no longer throws things at
> people but will disrupt anything for attention,
> and is more aggressive, e.g. biting the family cat.
> He has virtually no patience, saying 'I want - now!'
> He is still tremendously fidgety and 'won't sit
> still for 10 seconds, let alone 10 minutes'. Mrs.
> E ..... feels manipulated by K ..... who says, 'go
> on then, smack me' or 'I'll go and sit on the stairs'.

The comments of the independent evaluator are of considerable interest. She noted that Mrs. Easton felt that at least some of K ...'s behaviour difficulties might well be due to dietary factors, and so had begun to exclude a range of sweets and other foods and drinks containing 'E' factors. Since watching K ....'s diet, she felt that the situation had been somewhat alleviated but was by no means perfect.

The evaluator appreciated the importance of leaving no stone unturned in efforts to support this family, and she concluded,

> Mrs. E..... had expected a lot from the course and
> had seen the light at the end of the tunnel when the
> intervention started. But, as she said in interview,
> her light at the end of the tunnel 'turned out to be
> a gorilla with a flash light'. In the long run the
> intervention did not help K .... much and the possibility
> of a food allergy - hyperactivity link is there. ....
> Mrs. E ..... has obviously *come to a definite conclusion*
> that a food allergy is causing all K .....'s problems.
> She is now, therefore, unfortunately letting the methods
> used in the intervention slip - especially the use of
> Time Out which is the most important.

5   <u>Telephone method: success for May and her family</u>

This little girl was aged 2, and her mother, Mrs. Davis, was experiencing acute marital difficulties at the same time as she enrolled in the course. The difficulties concerning May which she reported were, primarily, acute sleep problems, with only three hours sleep some nights, together with temper tantrums, disobedience, screaming and constant restlessness.

Mrs. Davis found herself among those with whom the author worked on the telephone. She described herself as a mental and physical wreck at the outset, and said that her little girl's behaviour was so bad that, on a regular basis, she had to return home from her part-time job because she was so tired. Mrs. Davis said she felt suicidal, but although she had approached her G.P. and health visitor, nobody wanted to know. May was already having a diet excluding foods with colourings and preservatives, but this was not sufficient to bring her behaviour within manageable bounds.

The marital difficulties were also acute at this time, and Mr. Davis gave May's behaviour as the reason for leaving the family home. Despite these many, demoralising stresses, however, Mrs. Davis responded extremely positively to all the principles of child behaviour management which the course was designed to teach, and carried out all the associated tasks impeccably.

There was an immediate improvement in May's behaviour. Mrs. Davis reported the astonishing effectiveness, as she

experienced it, of Time out. Within a couple of weeks of

beginning to use this approach she reported,

>It _is_ working - it's working 100%. I had
>
>a really good night's sleep - Time out, that's
>
>what does it. The last two days, she's been
>
>really affectionate ...

Describing how she handled sleep problems, she reported:

>At night Time out is on the landing. 'You'll
>
>go on the landing', I told her, and I walked
>
>straight out and went back to bed. I didn't
>
>have another peep out of her.

The above extracts from the author's notes set the

tone for the whole intervention. Things got better and better.

From having the little girl roaming around the house until

late at night, and eventually falling asleep on the settee, Mrs.

Davis gradually made bed-time more and more of a routine, until

by the second booster, May was in bed and asleep by 7.30 p.m.

She understood the principles of the approach, and applied them

to new situations, such as May's deliberately wetting herself.

The child was mopped up and briefly ignored.

Mrs. Davis was herself almost incredulous at the change

in May and in herself. She reported that 'people had commented

on the change', and that it was hard to believe that it was the

same little girl. Sadly, she commented,

>If she'd been like she is now, from being a baby,
>
>I wouldn't have had this trouble from her dad.

The independent evaluator, who was in touch with Mrs.
Davis at follow-up, reported,

As a result of the course mother described May

as a changed little girl who is a pleasure to be

with while Mrs D. herself feels much more in

control of the situation and volunteered to help

others with the same problems.

May's father was now living apart from the family, but the
relationship between him and the little girl had changed for
the better. The evaluator also reported that consistency of
treatment, by both mother and grandparents, seemed to be very
important in this intervention. In addition:

In particular, 'Time Out' has proved of tremendous

value. M's own words "She hates it! Like a cross

to a vampire!" She cries all the way to her

appointed places (one in her own home and one in

her grandmother's home) but the family is adamant.

Another twist ... is that the family has decided

that whoever puts her into 'Time Out' is the only

person who can get her out, the decision is <u>not</u>

questioned. Her mother described M .. as sitting

at the top of the open-plan stairs in her home, or,

at grandma's sitting in the downstairs lavatory

(with the door open) in full view of everyone in

the kitchen, sadly serving her time.

It is of great interest and a source of considerable
satisfaction to think that improvements in this family's
life took place without family or therapist ever having met.

6   <u>Telephone method: some success for Sean and his family</u>

This little boy was four years old when he and his family were taking part in the course, and lived with both parents. By all accounts he was tall and physically well developed for his age: his school subsequently described him as 'a big strapping lad'. His family was put in touch with the author via the local branch of Parents Anonymous.

Difficulties complained of were being difficult to manage, irregular and interrupted sleep patterns, intimidating other children and disrupting their play, and harassing visitors to the house. Mrs. W ...... associated at least some of these difficulties with his strong physique, and could see that other children were easily frightened by him.

It seemed that there was not much readiness on the part of Sean's father to participate in the course; he apparently found his son an awkward child, and there was not a very positive relationship between the two. He did not actively hamper the strategies advocated by the course: he just took little interest and continued to get exasperated by Sean.

Things went fairly smoothly during the period of the course. Mrs. W ...... cooperated fully, and the gathering of data was illuminating to her. She was puzzled by how few negative behaviours there were to record, and how many positives. The author's notes record the 'puzzlement' which Mrs. W ...... repeatedly expressed concerning developments; she was repeatedly surprised by the changes which she noted in her son's behaviour, and found it hard to attribute these to her new ways of handling him.

Events followed a smooth sequence over the period of the telephone intervention. By the third week, Mrs. W ...... was already reporting that she could see the difference in Sean; by the fifth, he was reported as 'playing happily and quietly by himself'; by the sixth, Mrs. W..... said with satisfaction that he was 'learning to concentrate' and that two mothers had independently told her how good Sean now was in school (playschool) and by the eighth, she was delighted to report that the improvement 'had been noticed in all quarters', and that, to her happiness, Sean was now 'liked'.

The improvements were maintained during the period of the boosters, although at the second one, at three months, there were complaints of the boy's 'boisterousness'. The author also had two further telephone conversations, at later dates, in which some of the old difficulties had clearly recurred. Adherence to the same behavioural principles was firmly encouraged.

At the independent evaluation it became apparent that some of the earlier gains had not been fully maintained. Sean was still reported as being 'full of beans' and in the mornings, 'wanting to go downstairs and fighting if not allowed'. At school, which he now attended full time, it had been suggested that he see the school psychologist.

Other data gathered at follow-up did, however, still offer a fairly encouraging picture: Sean played very well alone now, slept more regularly, harassed visitors less, and had made some slight progress towards being less intimidating of other children and disruptive of their play.

Chapter 14

Limitations of the study

Clearly any study conducted within a 'service' model has a number of limitations. While every effort was made to observe rigorous methodological standards, it was inevitable that there should be areas in which the author was less than satisfied that she had achieved these. It is these, and other shortcomings, which form the substance of this chapter. Several shortcomings of the research will be examined below, in the order in which they came to light.

1 Limitations concerning the design

2 Difficulties relating to the participants

3 Shortcomings of the materials and instruments

4 Shortage of data upon actual behaviour change - as against data based on reports of behaviour change

5 Limitations concerning the procedure

Each will be considered in turn. If any clear recommendations emerge from recognising these shortcomings, or from conducting the research in general, these will be stated.

1 Limitations concerning the design

The research design was shown on page 119. It has already been acknowledged that the pilot study was deficient in failing to take initial baselines against which changes in the children's behaviour during intervention could be measured. This flaw was corrected in the main study.

1.1 The small experimental population

A limitation of the research in general was the small

number of participants. As described in Chapter 9, at the

outset enquiries were received from 50 families, of whom

37 returned completed application forms. The level of

attrition was fairly low, with only 7 families dropping out

completely, although, as would be expected, some items of

data were not available for several children.

To recapitulate, the numbers in the groups were as follows:

Group method: 8 *

Home visit method: 10

Telephone method: 12

Waiting list control: 11

* Numbers add up to more than 37 because some children took

part in the waiting list control condition before being

allocated to an active treatment condition.

As things turned out, these numbers were probably the upper

limit with which any single researcher could cope with if he

or she was also in full-time employment - as was the author.

Nevertheless, the implications of small numbers are obvious:

it would be inappropriate to draw more than tentative

conclusions from a study of this scale, and while the results

obtained were very encouraging, replications of the research,

drawing upon data from larger experimental populations, are

clearly necessary.

1.2 Limitations concerning allocation to methods

A further methodological weakness, which has already been acknowledged, was that the allocation to methods of training was not absolutely random. In three instances applications were allocated to a group other than that which the random allocation would strictly require, but for reasons required by either ethical or practical considerations.

In two instances the applicant clarified that because she had other young children, and in one case a very new baby, she was quite unable to bring them to the university on two buses, and she requested a home visit; she said that if this was not possible, she would have to withdraw. In this case, and in another similar instance, the applicants were 'dealt' to the next method in the sequence, and the spaces left were filled by continuing to 'deal the pack' of applicants.

A second reason for foregoing the rigour of the random alloction was that one parent who had asked for help was in full time employment, and was unable to attend the group method at the university. In this case, the child was entered first on the waiting list, and then, when waiting list children were randomly allocated to active intervention methods, she fell into the home visit method. The space left in the original allocation was filled as described above.

These then were departures from the rigour which would have been desirable; the author has no doubt however, that they were appropriate and ethical departures and anticipates that such 'irregularities' would be unavoidable in a replication.

1.3 Other sources of variance

Another design difficulty arose from having to allocate the participants to Spring and Autumn meetings. As a result, parents in the Group method did not all experience the same group. Because of the number of applicants, and because five parents seemed to be the optimum number who were manageable by the author in a two-hour period, it proved necessary to hold two separate Group sessions - one starting in May and one in September. While every effort was made to adhere to a common sequence and pattern of events in the two groups, it was inevitable that the two groups should offer different social experiences to the participants. This is discussed in more detail below.

A different kind of weakness arose from the fact that the independent evaluators consisted, in total, of eight different people. Such a large figure is undesirable, but arose inescapably from engaging as evaluators third year psychology undergraduates in three consecutive years. While acknowledging the variance introduced by so many different individuals, an effort was made to minimise this in that their work was all supervised by Professor Herbert, who was also the supervisor of the research.

1.4 Lack of a control for the contribution of counselling

Yet another kind of design weakness concerns the want of a means of controlling for the possible effect of offering counselling approaches, listening, empathising and positive regard - as distinct from one based mainly upon principles of social learning theory. The case has been made earlier

in this report that basic listening and counselling skills
should be part of the repertoire of parent educators, and the
author was conscious, when carrying out her research, that she
was drawing upon these approaches when seeking to build a
positive and supportive relationship with parents.

The counselling contribution seems to be most important in
the early stages of the contact between parent and therapist.
As the relationship develops and trust in the therapist grows,
so parents feel able to reveal some of the emotions felt towards
the child, and it is then that empathy and acceptance are key
features of the relationship. Later, as the educational role
of the therapist becomes more central, the contribution of the
counselling approach seems to diminish.

The author does not consider then that an approach based
exclusively upon concepts drawn from social learning theory
would be viable. What is be viable, however, is to design a
future study incorporating two control groups: the first
would be that which was already designed into the present study
(in which participants received no help of any kind for the
eight weeks of the intervention); the second would be an
additional control group, in which participants received only
non-directive counselling, without any teaching of principles
of social learning theory. Such a design would enable the
contribution of counselling alone to relieving child behaviour
disorders to be more clearly distinguished.

2 Difficulties concerning the participants

The experimental population was, as had been hoped, hetero-
geneous in background and personality. The participants were

alike in that they were all white, and were female rather than male; that is, the few fathers originally involved tended to drop out of the meetings within a few weeks.   The one Afro-Caribbean father did not take an active part in the study. In other respects, however, the participants were very different: for example, in terms of socio-economic background, in terms of coming from either a one- or a two-person home, and in terms of personal confidence. While such heterogeneity is of course expected rather than avoided in designing a research study, it can give rise to anomalies.   Some of these will be discussed below.

Socio-economic background is difficult to judge, and in that this study attempted to offer a service to participants, was not seen as a primary variable. Since such variables are important, however, the author has reluctantly attempted to assess the socio-economic background of the participants. Since so many of the families had but one parent, the assessment is based upon housing rather than upon the father's employment. The families are listed below according to the type of housing which their address suggests, from the author's knowledge of the localities.

	Private housing	Council housing	Total
Group method	4	4	8
Home visit method	5	5	10
Telephone method	10	2	12

Table 14.1 The socio-economic backgrounds of families involved in the study: unreliable data)

This judgment is likely to be particularly unreliable in respect of the Telephone method participants, in that the author did not meet them, and in that in many instances she did not know the locality from which they come. If it is at all accurate, however, it suggests that the social mix of the Telephone group is skewed. Nevertheless, as will be discussed in Chapter 15, socio-economic background per se does not appear to be a key variable in determining success or failure in applying principles of social learning theory.

As will also be discussed later, it does appear that lone parent-hood, particularly unsupported lone parenthood, is a vulnerability factor, and in this respect there was again an uneven mix in the various groups. There were two lone parents in the Group method, one in the Home visit method but five in the Telephone method. The finding concerning the vulnerability of this condition, while perhaps apparent on common sense grounds, did not emerge until after analysis, so the uneven mix of lone parents in the three methods need not necessarily be seen as a limitation of the study.

A much clearer complication however became apparent when the different experiences of the two cohorts of the Group method were examined. These two cohorts, despite the author's best efforts, did not have a common experience. This has been discussed previously in terms of social mix, but here it is necessary to report how the random allocation contributed to the Spring cohort's being very different from the Autumn.

Things so fell out that all but one of the Spring cohort
of the Group method came from the same large council estate
to the north of the city. They were all apprehensive about
coming to the University, and the author judged that the only
way to allay these fears was to bring them individually to see
the building, the playroom and the room where the meetings
would be held. This she did, and would do so again if
replicating the study. The Autumn cohort was a far more
confident group of women, and although the offer was made to
them to show them the rooms, this was not judged necessary
by any of them.

The Spring cohort had to deal with other difficulties.
The members came initially by two buses, bringing one or more
young children. When the difficulties of this became clear,
it was possible to arrange transport for some of the members,
but not all. The Autumn group had no such problems: they
all had access to cars, and were able to offer lifts to each
other.

A further difficulty which arose in the Spring cohort was
that one of the mothers, who subsequently dropped out of the
study and so whose data are not included, was an extremely
dominant woman. She spoke at great length, and loudly, and
despite the author's efforts to limit this, so that other
members of the group could participate, she visibly intimidated
them. On the occasions when she was missing, the meeting was
far more relaxed and the discussion far more shared.

By contrast, in the Autumn cohort, things were relatively harmonious and relaxed throughout. A group 'esprit de corps' swiftly developed, and members claimed that once they had overcome their initial fears, they looked forward with pleasure to Wednesday afternoons. The atmosphere in this cohort was very supportive to all concerned, and members kept in touch with each other outside the meetings. (In fact, the author subsequently learned that two of them, each anxious to sell a house, arranged to sell to each other!)

In sum, there was a marked difference in social mix, in group cohesion and in group supportiveness between these two cohorts which it is appropriate to point out. It is difficult to know how such hazards may be avoided, but it would not be appropriate to let it appear that the 'Group' experience was a common one for all participants therein.

3 Shortcomings of the materials and instruments

These were associated, in the main, with the booklets written by the author (see Appendices). Some feedback was obtained from participants in the pilot study about the usefulness, or otherwise, of the booklets, but it would have been of benefit in the long term if the author had spent longer in gathering this feedback and using it to amend the booklets.

The main difficulty was the language used. While the author actively sought to use language which was as straightforward and jargon-free as possible, it became apparent that

the booklets still contained much that was incomprehensible
to many participants. For example, a major difficulty arose
in connection with one of the core concepts of a behavioural
intervention: the A-B-C sequence. The word 'antecedent'
was not understood by a considerable number of parents, and
while alternative words, such as 'trigger' and 'cue' were
suggested, the fact that the very first word in the A-B-C
sequence proved such a stumbling block did seem to make some
some of the parents feel 'this was not for the likes of them'.

Similar anxiety attached to 'positive' and 'negative
reinforcement'. Having come fairly close emotionally to some
of the parents during the period of the study has led the
author to greater sensitivity to the feelings of inadequacy
and embarassment which 'not understanding the words' causes
people seeking help, and she would urge the avoidance of such
terminology in this sort of work.

A further intensification of difficulty arose from the
clear evidence that some of the parents concerned could barely
read. This presents major challenges to researchers and
trainers, for it is a reality that many people having problems
with their children are acutely educationally disadvantaged;
a means of helping them other than via the written word will
have to be found.

Were this study to be replicated, it would be important
to review the booklets and the various questionnaires to make
sure that they were as clear and jargon-free as possible.
It would be useful to engage parents from similar backgrounds
as proof-readers for all the materials.

Other difficulties were associated with the shortcomings
of the instruments of assessment used in the research. There
is a serious shortage of such instruments, particularly of
those which parents can complete concerning their children
and which have also been shown to be valid and reliable.
This section discusses some of these difficulties.

The initial application form, see Appendix 1.1, was
adapted from the Children's Behaviour Disorder Questionnaire,
Scale A, devised by Rutter, Tizard and Whitmore (1970), and
well-established. This 18-item schedule was reduced to 10,
in discussion with the author's supervisor, by avoiding items
which could appear repetitive to parents.

Some difficulties arose in connection with the instruments
sent to parents to gather initial information upon their child.
In the pilot study the 50 item test by O'Dell, Tarler-Benlolo
and Flynn (1979) concerning knowledge of behavioural principles
as applied to children was sent to the parents involved;
there was clear feedback, however, that completing a schedule
of this kind which takes up to 40 minutes was unacceptable.
In the main study, therefore, the form of the above schedule
devised by Furtkamp, Giffort and Schiers (1982) was used;
this comprises two parallel questionnaires, each of 10 items
only, which the authors had shown to be very reliable.
Research continues upon its predictive validity.

If considerable confidence can be placed in the two above instruments, less can be placed in the other two. The Home Situations Questionnaire (Appendix 1.4) was adapted from a the schedule published by Barkley (1981); he reported having developed it as a measure for use by parents, but does not claim that it has been demonstrated as valid and reliable. It was thus used faute de mieux.

The Personal Stress Score Sheet (Appendix 1.5) was devised as a simple graphic self-report measure, on a 0-10 scale. An example was sent to illustrate the way it might be completed by parents (Appendix 1.6). This scale has all the weaknesses of self-report measures, but was deliberately used because the author wished to avoid more words, and to use a more visually meaningful measure.

That the techniques employed were flawed is clear; some comfort, however, may be derived from the indications that the trends reported by the participants after using them were all in the same direction upon all the measures. This seems to suggest some minimal level of consistency across all the measures.

There were then a number of limitations in this study arising both from the shortcomings of the training materials distributed, and in terms of the various measures taken. A replication should seek to clarify the former and to improve upon the latter.

4   <u>Shortage of data upon actual behaviour change - as</u>

<u>against data based on reports of behaviour change</u>

Implicit in what was written in the previous section upon

the limitations of the instruments is the acknowledgment that

the data gathered all reflected <u>perceptions</u> of behaviour by

the parents of the children concerned: we do not have data

indicative of <u>actual</u> behaviour change.

Attempts were made from the outset to operationalise the

concepts of 'obedience/disobedience' or 'complying/not complying

with an instruction', but even so, it remains true that the

data brought to analysis were highly individual perceptions

of the children's behaviour - with anomalies in recording which

will be discussed further in the next section.

It is not easy, however, to suggest ways of overcoming this

problem. While it might be possible in some studies for the

researcher to visit the families and view the child's behaviour

for him or herself to attain maximum consistency, the design

of the present study meant that the author never met about a

third of the participants, and could not do so without

disrupting the design.

If the children had been older, and cooperative, it might

be possible, in another study, to enlist them themselves as

recorders of their own specific behaviours; in the design

being reported, however, which not only has young children as

its focus, but uses the triadic model as the main vehicle of

training, it may be almost impossible to gather <u>actual</u> counts

of behaviours as distinct from perceptions thereof. This

limitation has to be borne in mind when discussing outcomes.

5   Limitations concerning the procedure

Acknowledgement has already been made that the two sets

of participants in the Group method had very different

experiences, arising in part from their different composition

and in part from the personalities of the members. It is now

appropriate to acknowledge that there were inevitably some

other discrepancies between the experiences of different

participants - in addition to that afforded by the main

independent variable, i.e. method of intervention.

One difference was the amount of time which the author

found herself giving to the home visit condition - by contrast

with the other two. It was perhaps inevitable, as had been

described already, that in someone's home one should get

more readily diverted into topics other than the referred

child's misbehaviour than when telephoning: this definitely

occurred, and is reflected in the far higher average time

taken by participants in this condition.

A further anomaly was that a number of participants,

one in the group condition, two in the home visit condition

and one in the telephone condition, sought and obtained a

number of additional visits - over and above the standard

eight meetings plus two follow-ups experienced by the great

majority of those taking part. The author did not hesitate

to respond to the requests for additional help, as it seemed

to her and her supervisor that it would unethical to fail

to respond; such visits or telephone calls were kept to a

minimum.

A further procedural difficulty which the author suspects but which is difficult to verify, concerns the actual way in which data was recorded. In the booklets, and on other occasions, the request was made that each incident of e.g. non-compliant behaviour, should be recorded in terms of the number of minutes the incident lasted. It seemed from an inspection of the data, that some parents followed that advice and others did not: i.e. some may have recorded the number of specific incidents of non-compliant behaviour while others may have recorded the duration of a tantrum. The latter was what the booklets requested, but it was not until the final tabulations were made that the range in non-compliant behaviours became apparent: namely 0-240.

Thus while the author thinks it likely that there was some such variation in recording data, she has no firm evidence for this. Any future study should ensure that very clear means of recording data are taught and practised.

In summary, it seems that while efforts were actively made to address the research task in a rigorous and demanding way, e.g. by involving independent evaluators and by using long follow-up intervals, there were some methodological short-comings which give rise to concern. Some of these, partic-ularly those relating to the materials and to ways of recording data could be eliminated or much reduced: those concerning the participants themselves perhaps could not. Clearly, any replication should actively seek to avoid the methodological pitfalls which the author has reported.

Chapter 15

Implications of specific findings

The results set out in Chapter 10, and the discussion

thereof in Chapter 11 concerning the support or not for

the predictions made at the outset of the study suggest:

1 That parents of difficult pre-school children can

be successfully trained to manage their children effectively.

2 That their children become more manageable by compari-

son with the children of parents who did not receive training.

3 That the effects of training endure at 12 - 18 months

as reported to independent evaluators.

4 That there is a falling off, however, in the extent

to which effects maintain between post-intervention and

follow-up.

5 That there is little to choose between outcomes among

three methods of active training: group method, home visit

method and telephone method.

Arising from the above are a number of issues which need

further examination:

1 The vindication of the social learning theory analysis

2 The usefulness of the training booklets.

3 Investment of trainer time, and some implications.

4 The telephone method: possible reasons for success.

5 Factors apparently central to success.

6 Diminution of effects over time: counter strategies.

Each will be examined in turn, and additional issues

will be examined in Chapter 16.

1   <u>Vindication of the social learning theory analysis</u>

This study shows then that ordinary parents, referred

by G.P.s and Health Visitors, and recruited by response to

a letter in a local paper, can be trained to be effective

managers of their difficult pre-school children. It is

another plank to the foundation for the effectiveness of

the parent-training approach for which the case has been,

and is being made, by Patterson (1975), Atkeson and Forehand

(1978) and Herbert (1981; 1986).

In Chapter 7 it was clarified that this approach can be

linked to the 'triadic model' advocated by Tharp and Wetzel

(1969). This model is gaining in popularity as it gains in

credibility, and in this instance the role of 'Consultant'

was played by the author, that of 'Mediator' by the parent,

while the 'Target' was the child. This model enables the

parents, those who are, above all others, most intimately

aware of the diffculties, to test out the methods being

advocated in the real-life, day-to-day setting. This approach

is conceptually <u>far</u> away from the clinic-based 'treatment'

model in which a therapist, of whatever persuasion, seeks to

locate the source of difficulty within the child and, in one

way or another, to exorcise it.

That the parents appreciated the 'down to earth' quality

of the recommendations made is unquestionable. As several

mothers reported, they 'know how to treat the child now'.

Having unsuccessfully sought help from G.P.s, ('They look
at you as though you're mad....!') they spoke of the relief
of having a clear set of principles to guide their handling
of the children. Moreover, when the author enquired if the
ideas 'made sense', a common response was that, 'Yes, they
made a lot of sense!'

It would be inappropriate, however, to convey the impres-
sion that the author acted only as parent-trainer. As indi-
cated in Chapter 7, one of the strengths of this model is
that it enables issues affecting the parents, which some-
times stem directly from the behaviour of the child, and
sometimes from other factors, to be ventilated as well. The
author was well aware, for example, that she was in a large
number of instances being used in a fairly traditional
counselling role. Parents used her to unburden themselves
of difficulties relating to a number of factors with which
they were coping, and appeared to gain relief therefrom.

It will be noted that there were several one parent
families within the overall number: of these two fell in the
group method (N=8), one in the home visit method (N=10) and
no less than five in the telephone method (N=12). Other
families, though two parent families, were clearly having
marked marital difficulties. It is noteworthy that the
author was actively used as a 'listening ear' in virtually
all these cases, and she had the clear impression that the
ventilation of difficulties concerning marital and inter-
personal stress had the effect of relieving tension; this

seemed to enable the mother to rally her reserves of energy
and address again the task of coping with her wayward child.

Implicit then within this use of the triadic model is
the role of the trainer as counsellor. As the author has
argued elsewhere, Sutton (1979), an effective helper needs
a grounding in a counselling orientation to people in
difficulty: thereafter, a wide repertoire of knowledge and
strategies of helping is called for, to be selected and
implemented according to the needs of the individual concerned
The author's experience throughout this study strengthened her
conviction that a social learning theory analysis is sound
but is at its most fruitful when underpinned by a counselling
approach.

2 <u>The usefulness of the training booklets</u>

The use of training manuals for the parents of difficult
children and for other groups has, in recent times, won
increasing attention. (Shrank and Engels, 1981). Since such
manuals have had varying degrees of success, Glasgow and
Rosen (1978) distinguished three different conditions:

1 Self-administered cases: no contact with a therapist

2 Minimal contact bibliotherapy: some contact

3 Therapist admininstered programmes: regular contact

Clearly the study under discussion falls into the second
of the three strategies.

It is of considerable interest that a recent review by
Horton (1982) highlighted a study by Christensen, Johnson,
Phillips and Glasgow (1980), who, working with 36 families,

compared three methods of training using a manual: self-instruction, individualised instruction from a teacher, and group instruction. It was found that, regardless of the method of training, all groups improved similarly when measured by a parental attitude check-list. O'Dell and colleagues (1979) also found a manual-only approach to be equivalent to other strategies of training when measured by parental attitude change.

In reviewing these and a number of further studies, e.g. Sirbu, Cotler and Jason (1980), Horton concluded,

> Parents appear able to learn principles associated with broad-focus training approaches simply through reading a manual.

The author, however, has major questions about this conclusion: it relates to a rather different population of parents, American rather than British; it makes extensive use of the Test of Knowledge of Behavioural Principles as a criterion of effectiveness (a topic to be discussed in the next chapter); and, most important, the length of follow-up typically associated with these studies was 1 - 2 months, and, at the most 5 months. In short, parents may acquire a cognitive understanding of behavioural principles through the mere reading of a manual, but it is unproven whether these principles actively penetrate their behaviour patterns, or whether they maintain over significant periods of time.

Notwithstanding these reservations, it seems that the potential for the use of a manual is considerable, and the evidence from the present study supports this. All parents received copies of the eight booklets, and of the data collection sheets, and while a few reported that they would have preferred a single manual, the general concensus appeared to be that distributing a small booklet, one a week for eight consecutive weeks, was helpful. Certainly, for many of the mothers who had dfficulty in reading, they were more acceptable than a single larger book.

Since the author felt considerable ethical accountability towards the mothers, and was concerned to minimise attrition, she decided against a 'manual-only' method; with hindsight, this seems to have been both the right and the appropriate decision, since the interactive approach which developed with the telephone group enabled her to be in weekly contact with these mothers, to pinpoint difficulties and to encourage the faint-hearted. She would use the same approach again.

2.1 The language of the booklets

Despite the author's best intentions, she included far too much technical language and jargon. There were requests for 'less long words', and 'the same ideas but in ordinary words' and, upon re-reading the booklets, and seeing them through the eyes of the mothers, the author reconsidered her views. It is now her view that, if we are to reach the parents who most need our help, even basic behavioural terminology, like 'positive reinforcement' and 'antecedent', will have to go!

3   Investment of trainer time: some implications

The various time investments by the trainer were noted

in the Results section;   the mean times per child are shown

again below:

Group method	4 hrs. 30 mins.
Home visit method	5 hrs. 47 mins.
Telephone method	3 hrs. 9 mins.

Table 15.1 Mean times per child used by the trainer

with each of the three methods

It is vital to emphasise, however, that the above times

represent training time only;   they do not include travel

time, which for both the group method, and even more for the

home visit method, were very substantial. The author's

estimate is that for the group method a further hour per

week was needed, and for the home visit method, a further

four hours, since several families were visited weekly.

The saving of time by the telephone method is obvious.

The data suggests that half as many families again can be

reached by use of the telephone as by the group method, and

nearly twice as many as by the home visit method. The above

figures refer to trainer time alone, and no consideration has

been given to e.g. petrol costs, expenses for the employment

of nursery nurses to care for children while parents attended

group sessions, heating or other overheads. A disadvantage

of the telephone method was the expense of phone calls, upon

which data was not collected.

4   The telephone method: possible reasons for success

Independent evaluation at both post-intervention and
follow-up showed that, considering the parents overall, there
was nothing to choose between the three methods of training.
This accords with findings from O'Dell and colleagues (1979),
referred to previously, and is also in line with the outcomes
from studies such as Brown and Lewinsohn (1984), who tested
four methods of using an educational approach to depression:
group, individual tutoring, minimal contact and delayed
treatment control.   Results indicated clinical improvement
in the three active methods - by contrast with controls.

There is an increasing body of evidence then that the
physical presence of a helper is not an indispenable pre-
requisite to helping people. Since the use of the telephone
suggests a potential for reaching a very wide range of people
who might otherwise never receive help, it is appropriate to
consider somewhat more fully how, apparently contrary to
common sense, results were comparable with those of other
methods.   The author's view is that this can best be under-
stood in terms of 'self-efficacy'.

4.1 The relevance of concepts of 'self-efficacy'

As discussed in Chapter 7, Bandura (1978) has invoked the
concept of 'self-efficacy' as a belief or set of expectations
which is activated by the practice of behavioural approaches.
In this study, parents were enabled to discover that they did,
after all, have some means of managing children who had
formerly seemed beyond their control;   this enabled them to
feel a new sense of personal competetence and fresh optimism.

It is clear that, if this argument has any merit, the enhanced 'self-efficacy' of the parents developed for all the three active training methods. The point which the author wishes to pursue here though is why, since the parents in the telephone method expressed the wish that they could be in touch with other mothers having similar difficulties, and also expressed the wish for actual meetings with her, this method was nevertheless no less successful than the other two.

One possible explanation is that, in default of face to face contact with the trainer, the mothers were thrown back upon reading the eight booklets. Upon reflection, it is the author's impression that the mothers with whom she worked face to face, (i.e. the group and home visit methods), tended to focus more upon the aspects of their circumstances which which were tangential to the specific practice of the behavioural principles. It was far easier for the discussion to develop into a general 'chat', particularly in the home visit situation - so deflecting attention from the essential principles. The author was aware of this danger, but when one is in someone else's home, it is exceedingly difficult not to get drawn into the norms of ordinary social visiting: interest in the children's drawings, introductions to other members of the family and admiration of the garden.

Such exchanges inevitably blurred the precision of the trainer's role: upon reflection, it seems that the person of the trainer became more central than the concepts which

she was attempting to teach. In the group and home visit methods the discussion of the extent to which the behavioural principles were being practised was far less sharply focused than in the telephone method.

If this analysis is correct, it would explain at least something of the effectiveness of the telephone method. These mothers, who experienced a shorter and perhaps more intensive instruction in the use of the principles, may have remembered them better and used them with greater precision and conviction. Thus in this group parents may have experienced 'self-efficacy' earlier than some of the other parents, and this itself may have led to further willingness to practise the principles.

5 Factors apparently central to success

There may well be a number of variables which will, when sufficient research has been carried out, emerge as central to the successful training of parents to manage their children. At the present stage, however, it is only appropriate to pin-point two which seem to make a major contribution to success. These are: the consistent use of Time Out and the availability of marital or family support. The two are interlinked, and are in line with findings from other studies.

5.1 The consistent use of Time Out

It was one of the independent evaluators at follow-up who, on the basis of her detailed work with five families from the second cohort whom the author visited at home, reported:

The importance of the appropriate and consistent use of the TO procedure is evident. The ease of implementation of TO seems to correlate with the success of the parent-training as a whole for each family. However, this cannot be statistically assessed. Both parents of C 5 (who improved the most) reported no problems with TO whilst the mothers of the two children showing the least parent-perceived improvement, had great difficulty ... Obviously practice was more difficult than theory because all mothers knew something of TO (as assessed by KBPAC). Perhaps the difficulties with TO arise because it requires that parents make a major change in their pattern of discipline and the parents find it difficult to adapt. Spanking was the norm for most of the parents included in this study; TO and its variants being more of a middle-class method of discipline. Certainly the middle-class parents of C 3 found it an easier concept to grasp than the other parents. Once mastered though, as evidenced by the results with C 4 and C 5, TO can serve to drastically reduce child noncompliance.

This perception accords with the studies of Herbert (1981) and Roberts (1984) that Time Out can be, and often is, an exceedingly effective strategy of reducing difficult behaviour. As the case studies reported above show, this certainly proved to be so in this study.

5.2 The availability of marital or family support

This variable appears to emerge from the brief demographic data concerning one or two parent family circumstances as being of major importance. Those mothers who had the least, or no success, were those who were either actually alone, having no marital or familial support, or whose husband, partner or wider family actively disapproved of the methods being advocated.

A number of single parents were exceedingly successful, including several in the telephone method and even one with twins. Yet these parents had the support of either a partner who appeared to approve of the practices being taught, or they had the support and approval of their own parents, the child's grandparents. Where such people did not approve, and undermined consistency, the mothers were virtually doomed to failure.

In the cases of the 4 children about whom the author is most despondent, A.S. and M.B. in the group method, K.E. in the home visit method and S.W. in the telephone method, this was so. The first three were single parents while the father of S.W. did not get involved in the situation.

Of even greater importance is the fact that all these
parents were notably unsuccessful in their implementation of
Time Out procedures. All these four children were boys; all,
despite being aged only three or four, were extremely strong,
and their mothers were already physically unable to place
them in Time Out. One, the mother of K.E., was reluctant to
continue to try, as even when she occasionally succeeded, she
was so emotionally stressed that she literally could not bear
his screaming: it was easier to let him rampage.

To summarise, it appears that two variables of central
importance to successful outcome is first, the ability to
implement the Time Out procedure, and second, the availability
of a relationship which is supportive both of the parent and
of her efforts to change her handling of the child. Where one
is lacking the prognosis is poor: where both are lacking, the
prognosis appears very poor indeed. Clearly, such a provi-
sional conclusion requires further and urgent research.

6   Diminution of effects over time: counter strategies

The results from this study indicated that at post-inter-
vention, when considering the experimental population as a
whole, there were improvements which were 'very highly
significant' on all seven measures. At follow-up the improve-
were still maintained, but at this 'very highly significant'
level on only three of the five measures taken. When results
for the various methods employed were examined, there were
some clear indications of a 'falling away' effect.

It is the author's contention that such falling away is
to be expected, and steps to counteract this should be imple-
mented in any study not constrained by tight experimental
design factors. Ever since Patterson (1974) advocated the
use of 'boosters', there has been awareness of the value of
such additional support, and with this in mind, 'boosters'
at two weeks and three months were built into the design of
the present study.

Nevertheless, there was some falling away, though in no
method to a point which in the parents' eyes was as serious as
pre-treatment. Because of the rigours of the experimental
design, parents were not encouraged to be in touch with the
trainer unless they felt seriously concerned about their
ability to cope. In the event, three families in the group
method, (N=8), five in the home visit method (N=10) but only
two in the telephone method (N=12), requested additional help.
Where this occurred, 'boosters' were given, but visits or
contacts were kept to a minimum.

If it were possible to plan a service to parents following
this work and its possible replication, it is the author's
view that 'boosters' should be available - upon request.

Chapter 16

Discussion of results: further issues

Arising from this study are a number of further issues
which call for attention and discussion. The following, which
include a wide range of factors, some associated with onset
and some with outcomes, are selected as of particular relevance:

1   Dietary factors: responding to a possible contribution.

2   Socio-economic variables as factors affecting outcome.

3   The extent of maternal stress concerning the children.

4   Understandng principles versus the 'cook-book' approach.

5   The need of additional support for children who have had
a difficult start in life.

6   The extent of father involvement.

7   The child's spontaneously showing greater affection.

Each of these issues will be considered separately below.

1   Dietary factors: responding to a possible contribution

The possible value of eliminating dietary variables such
as colourings and preservatives was discussed in Chapter 6.
The extensive studies of Taylor (1985) were summarised,
together with his conclusion that most hyperactive children
do no; in fact respond physically to the elimination of
additives, that a few respond via family suggestion and
concern, and that a few, as yet indistinguishable, show a
genuine response.

Since Taylor's review, further research continues, and the pressure group seeking to eliminate a wide range of additives from food has gathered supporters. The debate is still unresolved however, and the evidence continues to be equivocal. Until such time as the findings all point clearly in the same direction, there are likely to be few moves towards prohibiting the colourings and preservatives which some suspect so strongly.

The present study did not specifically screen for the possible contribution of additives to the children's behaviour disorders. Any future study should do so. Interestingly, a number of mothers spontaneously reported that they had <u>already</u> eliminated colourings and preservatives from their children's diet, but that this had had no effect; or, that while it had had some effect, this has been insufficient to reduce the children's behaviour disorders to manageable proportions.

It is the author's view that future studies should incorporate, routinely, the suggestion that parents may find some relief by eliminating additives from their children's diets. Such a recommendation would take into account the considerations discussed above, and while such advice, if followed, may confound results stemming from an approach based upon social learning theory, to give this advice seems the only ethical response until the separate contributions of these two major variables are distinguished.

2   Socio-economic variables as factors affecting outcome

This study did not set out to control for such factors:
thus the comments that follow are based more upon impressions
than upon any kind of verifiable or quantitative data.

It does not <u>seem</u> to the author that socio-economic
factors, per se, were crucial variables. In any case, it is
extremely difficult to decide, particularly in the case of the
telephone method, how to denote a person's socio-economic
group. If there is any correlation between readiness to read
booklets and socio-economic factors, then the latter may have
made a major contribution - in that the behavioural principles
advocated were contained therein.

Yet it is the author's impression, on the basis of those
families whom she did meet or visit at home, that socio-
economic variables were <u>not</u> central. Some of the most
successful families, as the author saw them, lived in council
housing, and some of the least in private housing: moreover
the author's and the independent evaluators' perceptions of
'success' tended to be in close agreement.

The author's view then is that while it is likely that
socio-economic factors make both some direct and some indirect
contributions to the total variance, of far greater importance
are the two variabler already discussed: whether the parent
is, or is not, successful in placing her child in Time Out,
and whether she is able to rely on the support of other family
members in seeing through the practice of the principles.

3   <u>The extent of maternal stress concerning the children</u>

The emotions which many of the mothers in this study experienced towards their children were intense. Below is a sample of some of the things which the mothers reported about their feelings towards their children, and with which the author was able to empathise.

'I could have choked him ...'

'I'm afraid of losing control ...'

'I'm unsure if I can keep my hands off the child ...'

'I'll swing for him ...'

'We said, 'If we can't cope with them now, how're we going to cope in the future? We may have to put them in a home ...'

'It makes your life a misery when <u>they're</u> in charge of you ...'

'I've not been feeling well ... If he'd been like he was when I've been feeling like I have, he'd be dead by now ...'

'There were times when I could have killed him. There were times when I was suicidal - when I was on the point of ringing Social Services and saying, Take him ...'

and, after a successful intervention,

'I really love them two; I used to hate them ...'

These mothers were genuinely desperate. Many of them had one or more other young children, and were experiencing not only tempestuous days, but repeatedly broken nights as well.

They feared that they would actually attack their children,

and having had no help from G.P.s, did not know where to turn.

They were afraid to contact Social Services because they

feared that their children would be taken into care - and this

was an outcome worse than putting up with the endless cycle

of tantrums, confrontations and broken nights.

These mothers are crucially important people in the

community; under acute stress, they struggle on, seeking to

do their best for their children. In the author's view, it

is vital that we learn how best to support and educate parents

in the skills of bringing up difficult children. A research

programme, which elicits the parents' views about what they

would find helpful, is urgently needed.

4   Understanding principles versus the 'cook-book' approach'

It is the author's fairly heretical view, arrived at as

a result of this study, that while it is wholly desirable

that parents should have an understanding of the theoretical

principles of the behavioural approach, and be able to apply

them consistently, by no means all do, and that some of the

most successful ones do not!

The evidence supporting this statement is to be found

in the lack of a clear association between an understanding

of behavioural principles, at least as measured by the Tarler

Benlolo Questionnaire, and the scores on the Home Situations

and Personal Stress schedules. Thus considering some of the

most successful outcomes, as measured by a clear reduction

in scores on a range of measures at pre-intervention/follow-

up, the following Tarler Benlolo (TB) scores are of interest:

Child	Pre-intervention				Follow-up				
	AP	TB	HS	PS	AP	TB	HS	PS	TB change
Group									
A.T.	14	7	99	17	6	5	15	0	Reduced -2
Home visit									
L.W.	12	0	64	37	2	6	12	5	Increase +6
R.M.	15	2	67	45	5	4	11	11	Increase +2
J.E.	16	4	59	27	5	4	8	9	No change
Telephone									
M.J.	18	3	75	49	6	3	16	50	No change
M.D.	13	6	63	53	3	3	6	14	Reduced -3

Table 16.1 Comparison of pre-intervention/follow-up scores
of children having successful outcomes, with particular
reference to Tarler Benlolo Questionnaire scores.

The mothers of 2 of the 'successful' children shown in
Table 16.1 showed an increased *grasp of theoretical* prin-
ciples, those of 2 showed no change, while 2 showed a
reduction in their understanding - as measured by this TB
questionnaire. Indeed the mothers of the two most
successful children both showed this reduction!

It is possible that this situation is explained by the
mothers' thinking in very practical rather than theoretical
terms. Whatever the reason, the author is not advocating a
cookbook approach, but has to take note when mothers who
have little apparent theoretical understanding are never-
theless so successful.

5   The need of additional support for children who have
had a difficult start in life

This emerged fairly clearly from an examination of those
children who were referred to the author by paediatricians
or G.P.s as having had a difficult start.   There were several:
the most serious was J.W., whose mother had lost her husband
in a road accident, and who had lost both a three year old
child from encephalitis and another child through cot death.
The child who was referred had almost died twice from respir-
atory infections prior to referral, and his mother's whole life
centred upon watching him to make sure he was still breathing.
She was frantic with shortage of sleep, and with his totally
demanding behaviour during the day.   As things fell out, she
found herself in the Telephone group.   She tried her best to
cooperate via this method, and initially made good progress.
After a further emergency, in which the child was taken to
hospital, it became apparent that this method was not at all
appropriate, and the author arranged to visit her at home.
Gradually, via this method, she and the child made very good
progress;   she continued to cooperate fully.   Sadly, the
follow-up data, reported as posted, did not arrive.

Two other children, S.B. and K.E., had both had major
difficulties in early life.   The former had been premature and
had had multiple admissions to hospital because of asthmatic
attacks;   the latter had broken his skull in the early months
of life.   In the study both received extra visits, but data
suggested that the former was only a partial success and the
latter made no noticeable improvement.   Such families clearly
need repeated, regular 'booster' visits.

6   The extent of father involvement

From the start, the author attempted to involve fathers.
Letters were addressed to 'Parents' and initial correspondence
at least was addressed to 'Mr. and Mrs.'. Two fathers came to
meetings of the Group method: in the first cohort, one came
to two meetings and in the second, one came to one meeting.
Both families had successful outcomes. Upon reflection, and
as discussed earlier, since the support of a husband seems to
have been such an important variable, the author may not have
persisted long enough, or enthusiastically enough, in her
efforts to involve the fathers.

It was virtually always the mother with whom the author
spoke on the telephone, and latterly the booklets were sent
to Mrs. M. rather than to Mr. and Mrs. M. Many mothers spoke
of the lack of interest, or sometimes of the active hostility,
of the fathers towards the ideas being proposed. Some fathers
saw it as inevitable that their sons should behave in the ways
which the mothers found so intolerable - 'That's how boys are' -
while others took, apparently, some satisfaction in showing
that they could control their sons - to their wife's
dismay and humiliation. 'I don't know what she's complaining
about: I never have any trouble with him' seemed to be the
essence of many fathers' attitudes.

Where opportunities arose, the author did seek the
husband's support for the wife. On reflection, should similar
work be conducted again, it would be of clear importance to

make a far more decisive effort actively to gain an interview
with the father (or cohabitee), and to win his cooperation in
for example, using Time Out, rather than beating, as a dis-
ciplinary measure. Similarly, although it would initially
be more time-consuming, it would be important to speak with
both parents to seek their active, even written, agreement
upon the detail of consistent handling of the child.

6   The child's spontaneously showing greater affection

This was an unanticipated outcome but an exceedingly
welcome one. As time passed, the author became aware, as
she spoke to mothers, that mothers were volunteering that, as
they practised the behavioural principles, they found that in
addition to complying more readily, the children were also
actively coming to them for cuddles and hugs. At first, such
reports were merely recorded as part of the author's running
notes, but as the author became aware of this phenomenon, she
sought opportunities of enabling the mothers to report such
developments, though without ever asking the direct question
'Has he become more affectionate since you began to use these
ways of handling him?' Rather, the general query was posed,
'Have you noticed any other changes in his or her behaviour?'

Reported below then are a sample of comments which the
mothers volunteered: the early ones were entirely unsought
and some of the later ones were also volunteered before any
kind of question had been posed.

"He's more affectionate - loving. He left a

message saying I love you Mummy". (A.T)

"He comes and gives me a love - I like that.

He never did before". (L.W.)

"She comes for a love. She's more affectionate.

She sits on my knee with her arms round me." (L.S.)

"He never used to cuddle me, but now he'll put

his arms round me and say 'I love you Mummy'.

Six or seven times during the day he'll come up

and say 'I love you Mummy'. He's a wonderful

child to live with now ...' (J.E.)

"He's more affectionate ... gives me a kiss ..

If he hurts himself, now he lets me comfort him.

He never wanted me (before) ... That hurt. Now

he does." (K.E.)

By no means every mother, or even the majority of

mothers, noted such a distinctive change of behaviour in her

child, but in that five did so, and in that it made such a

profoundly pleasing impact upon the mothers, it seems to the

author that the phenomenon deserves reporting. Indeed one

little girl elaborated upon her feelings, saying to her

exhausted mother,

"I really want to love you instead of being horrible

to you." (L.S.)

The author has naturally thought at considerable length

about this phenomenon. At present, she hypothesises that

the felt emotion of 'love' and the associated cuddling and affectionate behaviour blossom most readily in the 'natural' father-child and mother-child relationships where the parents are unmistakably dominant. Where, however, this relationship is reversed, and the child is dominant, the 'natural' development of the emotion of 'love' and its associated behaviours, cannot take place.

This then is the fresh hypothesis which has arisen from the author's great interest in the phenomenon. Sadly, this is not the place to explore it.

It is possible, however, to consider briefly the circum-stances in which this reversal of the dominance-subordination relationship might take place. It might arise through the child's having had a difficult start in life, so causing acute anxiety in either mother or both parents; it might arise through an over-concern for the rights of children and a lack of attention to the rights of adults; or it might arise when a quiet and submissive mother finds herself coping with an unusually active, strong and assertive child. All these scenarios were found among the families reported here.

For one reason or another, the child had become dominant over one, or sometimes, over both parents in all the families concerned. The intervention enabled most of them to re-establish the more usual relationship. Where this was so, not only did the parents feel more comfortable and, signifi-cantly, 'in control', but the child appeared to benefit also - enabled now to allow the positive and security-giving emotions and behaviours of 'love' to flower.

Chapter 17

Summary of conclusions;   recommendations;   and a post-script

1   Summary of conclusions

From this study may be drawn a number of tentative

conclusions;   these are summarised and discussed below.

1.1 Parents can be trained to manage their children

First, the study adds to the evidence that parents can

be successfully trained to implement principles from social

learning theory in the management of their difficult children.

Such training was found to be effective following an inter-

vention lasting eight weeks, with one training session per

·week. Results for the group as a whole, on seven separate

measures, were all found to be very highly significant.

At independent follow-up, twelve to eighteen months later,

the results for the group as a whole were very highly

significant on three measures, and significant or highly

significant on the other two.

Four methods of intervention were compared: group, home

visit, telephone and waiting list control. Those children

who found themselves in the waiting list control group did

not spontaneously improve as a function of the passing of

time: they did not grow out of their bad behaviour. At

post-intervention the children in each of the three active

intervention training methods all improved comparably. At

follow-up there was, in all three groups, some falling away

in the degree of improvement, but no one group suffered

falling away significantly more or less than the others.

1.2 Parents can be trained by telephone and manual

In that all three active methods of treatment were found to be broadly comparable, the tentative conclusion may be drawn that parents can be trained by the use of manuals, supported by a reliable and interactive telephone service.

This approach was by far the most economical of professional time. To train a parent by this method took only about about half as long as to to train her by the Group method, and only a third as long as to train her by the Home visit method. Telephone costs were far lower than travel costs.

The author suggested that there appear to be two main main factors which are often important in determining the success of intervention. These factors are: the capacity of the parent or parents to place the child in Time Out effectively; and the availability of active support for a mother from a husband, partner or the wider family. Where these were not available, interventions were less likely to be successful.

Another important factor seemed to be whether the child had experienced major difficulties at the start of, or in the earliest months of, life. In cases where this was so, it was not possible to help these parents by the Telephone method, and it proved very demanding to help them by face to face contact. Even this method, together with extra 'boosters', did not give lasting gains. It seemed that the mothers had had such deeply anxiety-provoking experiences with their children that they were still acutely sensitive to nuances of behaviour, and found it very difficult indeed to ignore them, or to respond with appropriate use of Time Out.

1.3 Some factors inhibit the success of intervention by telephone

To summarise these variables, the three particular factors which inhibit the success of intervention by telephone seemed to be:

1 The lack of support for a parent in implementing behavioural procedures.

2 Difficulties in implementing, or reluctance to implement, Time Out on the part of the parent.

3 Particular stresses, such as prematurity or illness, associated with the child's earliest months of life.

The majority of families, however, did not encounter these difficulties; the children in such circumstances might be called 'difficult children, but without complications'. They were found in families both with and without socioeconomic disadvantage. It is to these families that a service by telephone might be offered. The families where there were 'difficult children, with complications' would clearly not be appropriate candidates for a telephone service.

1.4 Other variables need to be noted when screening children

As has been discussed, there is still ambiguous evidence concerning the place of dietary variables and lead in contributing to difficult behaviour in children. It is suggested that, until such evidence becomes unambiguous, the advice of Taylor (1985) concerning diet should be followed: namely that parents should be asked if they follow a special diet; if they do, the trainer should support them therein; if they do not, the trainer should not recommend it.

It seems equally important that the possible exposure of
a child to the harmful effects of lead should be checked. Thus
a routine question concerning whether a child lives very near
to a main road, or other source of atmospheric pollution, seems
appropriate, until such time as the importance of such variables
can be more accurately stated than at the present.

1.5 On-going support for parents is essential

As shown by the data and the associated tables, there was
a clear improvement in all three active methods of intervention
by comparison with the control. In all three, however, it was
found that following the eight weeks of training, there was a
gradual deterioration of the children's behaviour. At long-
term follow-up (12-18 months), the extent of the children's
reported improvement in the the group as a whole, had still
significantly improved, but the extent of improvement had
diminished. The same sequence was shown on all four measures.

In the light of this, it is suggested that any further
research concerning the viability of helping families with
unmanageable children should depart from the design of this
study and should make available virtually unlimited trainer
support. In other words, to prevent the falling away of the
gains obtained in the intervention period, a programme of
supportive 'boosters' could be built into the programme at
frequent intervals in the post-intervention period. Further,
this initiative should be taken by the trainer; parents may
feel inhibited about seeking additional help.

2   Recommendations

2.1   That the study be replicated

Clearly a study of this kind needs replication in order to eliminate weaknesses and test results. While outcomes were consistent and all in the same direction, they could have been artefacts of some other variable or variables than the parent training described. Further studies are needed to confirm or refute the centrality of the contribution of parent training.

2.2   That larger samples be employed

As acknowledged, the experimental population was small; the sizes of the four training groups ranged between only 8 and 12. Studies with far larger samples are needed. This would allow further examination to be given to factors thought important in this study: degree of isolation/support for the mothers involved, the complications presented by a child's having a difficult start in life, and the importance of the parents and caretakers practising Time Out consistently.

2.3   That the possibilities of parent training by telephone be explored in their own right

Since even this modest study has brought some benefit to a small handful of families in terms of the mothers' sense of being able to manage their children and of reduced sense of personal desperation, the avenue of the telephone plus manual method of training merits exploration in its own right.

The author is emboldened to claim this because of a sudden realisation, which occurred in about November, 1984,

that she was now taking it for granted that she could help

families by the telephone method. This attitude had arisen from

her learning, unwittingly, but unquestionably, that she was

having consistently positive outcomes from many parents with

whom she worked in this way - at least during the period of the

study. Letters from parents whom the author has never met show

what led to this learning.

It is the author's view that this means of training parents

calls for explicit exploration, since, on the basis of this

study, it was found to be extremely cost-efficient, economical

of professional time and no less effective than the other two

active intervention methods. Even if only a relatively small

number of families, those with 'difficult children, without

complications' can be helped, it is suggested here that this

will represent a reduction of acute stress and tension within

those families, a check upon possible deterioration in the

children, and, at the most optimistic, an intervention which

prevents serious child conduct disorders or delinquency.

3   A postscript

It was because of the fullness of the awareness of the

author that she was now taking it for granted that she could

help families by manual and telephone that she undertook to

work with a further four families in this way after the period

of the study proper was over. These families were referred

at the very end of 1984 or at the beginning of 1985, by Health Visitors whom the author taught, and who were interested in the research project.

All these four children were boys; all were 'difficult children, without complications', and the mothers of all sounded very distressed when I spoke to them on the telephone. Suffice it to say, that although data was collected in the usual way, it is not reported or analysed here, but, by the same criteria of maintenance of improvement at the three months interval, all four were 'success stories'.

Finally, I have found this study of <u>very great</u> interest; it has proved arduous, challenging and frustrating at times, but the support and interest of my supervisor, Professor Martin Herbert, and the responsiveness, enthusiasm and gratitude of the parents has made the whole experience <u>enormously</u> rewarding.

To: The Centre for Behavioural Work with Families,
      Department of Psychology,
      The University,
      Leicester. LE1 7RH

      Telephone: Leicester 554455

<u>Confidential</u>

<u>Application to the 'Managing Difficult Pre-school Children' Study</u>

1. <u>Name of child</u> ....

2. <u>Address of child</u> ....

   ....

3. <u>Tel. no. (if any)</u> ....

4. <u>Child's date of birth</u> ....

5. <u>Mother's name</u> .... 6. <u>Date of birth</u> ....

7. <u>Father's name</u> .... 8. <u>Date of birth</u> ....

9. <u>No. of children in the family:</u> Please list, including referred child, with ages

   1. .... 4. ....

   2. .... 5. ....

   3. .... 6. ....

10. <u>Has your doctor confirmed that there is no medical reason for the difficulti</u>

    ....

11. Is your child receiving any medicine or tablets for the difficulities?

    If so, what?...

    ....

12. <u>Are you willing to participate in the Study in all of the 4 different forms:</u>

    <u>(group at the University, home visit, correspondence, waiting list)? We</u>

    <u>cannot at this stage say in which group parents will find themselves.</u> Yes/No.

    <u>Please give any other information you believe to be relevant</u> ....

    ....

    ....

    ....

    ....

    ....

    ....

    ....

<div align="right">P.T.O.</div>

13. <u>Difficulties being experienced with the child.</u>

Below are a number of statements; please tick the colum which applies to your child opposite each one. We have already ticked the third colum for the first statement, Non - compliant; disobedient, because we have found that almost all parents are coping with this, and we shall try to start by increasing the child's obedience in the work we hope to do with you.

<u>Statement</u>	Doesn't <u>apply</u>	Applies <u>somewhat</u>	Certainly <u>applies</u>
1. Non - compliant; disobedient	☐	☐	☐
2. Very restless; on the go all the time; fidgets; hardly ever still.	☐	☐	☐
3. Does not eat well; can feed self, but won't; has to be coaxed to eat.	☐	☐	☐
4. Aggressive; hits or bites other children and/or parents.	☐	☐	☐
5. Attention seeking; always wanting to be in the limelight, and to be in the centre of the stage.	☐	☐	☐
6. Sleep problems; does not settle at bed-time, or wakes demanding attention in the night.	☐	☐	☐
7. Does not settle to any game or activity for more than a few minutes; short attention span.	☐	☐	☐
8. Disruptive; interferes with the games or activities of other children.	☐	☐	☐
9. Other (please specify)..............	☐	☐	☐
10. Other (pelase specify)	☐	☐	☐

14. Now please would you number the difficulties you are having in order of the troublesomeness to you; we have already put 'Non - compliant: disobedient' as No. ① ; would you please put a ② against the difficulty you want to tackle after disobedience, a ③ against the one you want to tackle after t and so on. We cannot be at all sure of helping with all those you have tic but we should at least like to try to help with the ones which are causing the most stress.

Date........................   Signed ....

Tel.Leicester
554455

Centre for Behavioural Work with Families
Department of Psychology
University of Leicester
Leicester.

Date

Dear

Managing Difficult Children

Thank you for writing to us in connection with your child who seems to
be hyperactive or unmanageable in some way.

I must express my sympathy with you straight away, as I too found my
child almost unmanageable when she was 3 and 4, and I know from
personal experience how much stress, unhappiness and embarrassment
such a situation can bring about. I was fortunate enough to be taught
behavioural principles of managing children and the relief which the
practice of these brought is still clear in my memory. My daughter,
moreover, became settled and while she remained lively she was also
manageable.

It is indeed because of this experience, and because behavioural
principles are being found helpful in many areas of difficulty of
human relationships, that I have joined with Professor Martin Herbert
and other colleagues in a team at the University of Leicester. We
work together in the Centre for Behavioural Work with Families,
attached to the Department of Psychology, and my particular interest
is in methods of teaching parents key principles of the behavioural
approach.

We cannot be 100% certain that we can help you, but the research find-
ings from other such centres and from our own pilot study are proving
so encouraging that we should very much like to try.

We should like to invite you then to participate in a study in which
our main aim will be to help you and the other parents who have
sought our assistance to arrive at a situation where your children
are less hyperactive, more manageable and easier to love. All the
parents involved will be taught the same behavioural principles but
by different methods; for example, some will be enabled to learn by
means of a correspondence course, in order to see whether this method
can also be effective in meeting parents' needs.

We should like to emphasise the point that it is a cardinal principle
of the behavioural approach to evaluate the usefulness of the service
offered, as perceived by those who use it; thus we shall seek information
from you upon how we could improve our teaching, and we shall consider
ourselves accountable to you as consumers of a service.

I am enclosing therefore a number of papers, all of which will help us judge how best to design the course and to learn from you what you are wanting as priorities from such a course. The papers enclosed are as follows:

1. An agreement of intent to work together. This has already been signed by Professor Herbert and myself, and we should welcome your signature as indicating your willingness to work with us.

2. A questionnaire concerning your present state of knowledge of behavioural principles. We do not expect that parents will know the correct answers now, at the outset of the course; we hope however that during the course we shall be able to teach the principles so that by the end the correct answers will become more apparent.

3. A simple scale concerning the level of stress which you feel at present. Please complete this for 7 days. Again, we hope that as a result of the course you will come to feel rather differently, and that at the end you may complete this scale in a different way.

4. A questionnaire concerning the situations in which your child is hyperactive or difficult to manage. When you have completed these papers please return them to the University in the enclosed envelope. All such information will be regarded as confidential.

It is our intention to hold the course as soon as possible, and we shall be in touch with you again to give you further details. We hope very much that we shall be able to help you, and we look forward to working with you.

Yours sincerely,

Carole Sutton,
Lecturer in Psychology, Leicester Polytechnic.

Appendix 1.3   Agreement made with parents

Centre for Behavioural Work with Families,

Department of Psychology,

University of Leicester,

Leicester.

Agreement to work together

This agreement is drawn up between ....

for the Centre for Behavioural Work with Families,and ....

....

parent(s) of ....

In keeping with the wishes of those concerned to arrive at a happier
family situation, an agreement was made by both parties to keep to the
following general arrangements:

On your part		On our part
1. To keep appointments arranged.	1.	To keep appointments arranged.
2. To keep records concerning the child's behaviour.	2.	To provide charts or other means of recording the child's behaviour.
3. To read the booklets which will be provided.	3.	To explain the principles of the behavioural approach.

Renegotiation clause

The above agreement is open to renenotiation at any time by the parties
involved at the request of any party.

                              Signed ....

                              Signed ....

                              Signed ....

Date ....   Signed ....

. Home Situations questionnaire

Name of Child _____

Name of Person Completing This Form _____

Does this child present any behavior problems in any of these situations? If so, indicate how severe they are.

Situation	Yes/No (Circle one)	If Yes, How Severe? (Circle one) Mild — Severe
When playing alone	Yes No	1 2 3 4 5 6 7 8 9
When playing with other children	Yes No	1 2 3 4 5 6 7 8 9
When at meals	Yes No	1 2 3 4 5 6 7 8 9
When getting dressed	Yes No	1 2 3 4 5 6 7 8 9
When washing/bathing	Yes No	1 2 3 4 5 6 7 8 9
When you are on the telephone	Yes No	1 2 3 4 5 6 7 8 9
When watching TV	Yes No	1 2 3 4 5 6 7 8 9
When visitors are in your home	Yes No	1 2 3 4 5 6 7 8 9
When you are visiting someone else	Yes No	1 2 3 4 5 6 7 8 9
When in supermarkets, stores, church, restaurants, or other public places	Yes No	1 2 3 4 5 6 7 8 9
When asked to do chores at home	Yes No	1 2 3 4 5 6 7 8 9
When going to bed	Yes No	1 2 3 4 5 6 7 8 9
When in the car	Yes No	1 2 3 4 5 6 7 8 9
When with a babysitter	Yes No	1 2 3 4 5 6 7 8 9
When at school	Yes No	1 2 3 4 5 6 7 8 9

The 15-item version of the Home Situations Questionnaire.

PERSONAL SENSE OF STRESS

Name of parent ....

....

Name of child ....

....

Date......................

Extreme
stress
and
tension.

Considerable
sense of
stress
and
tension.

Calm,
relaxed
mood.
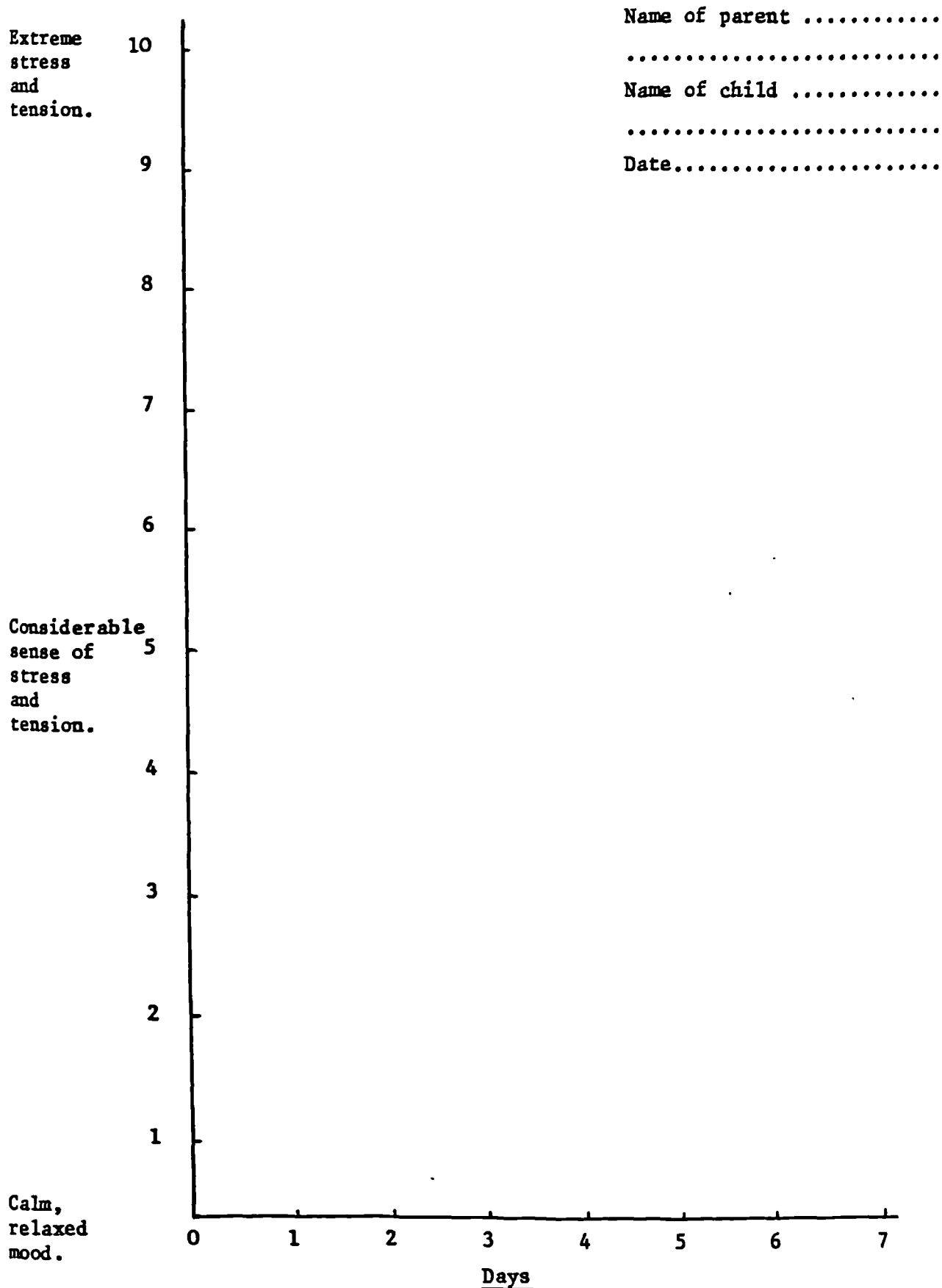
Days

Please record the highest personal sense of stress which occurs
for 15 minutes or longer on any day.

PERSONAL SENSE OF STRESS

Name of parent ...May......
.............Davies...........
Name of child ..Sally........
.............Davies...........

Date........................
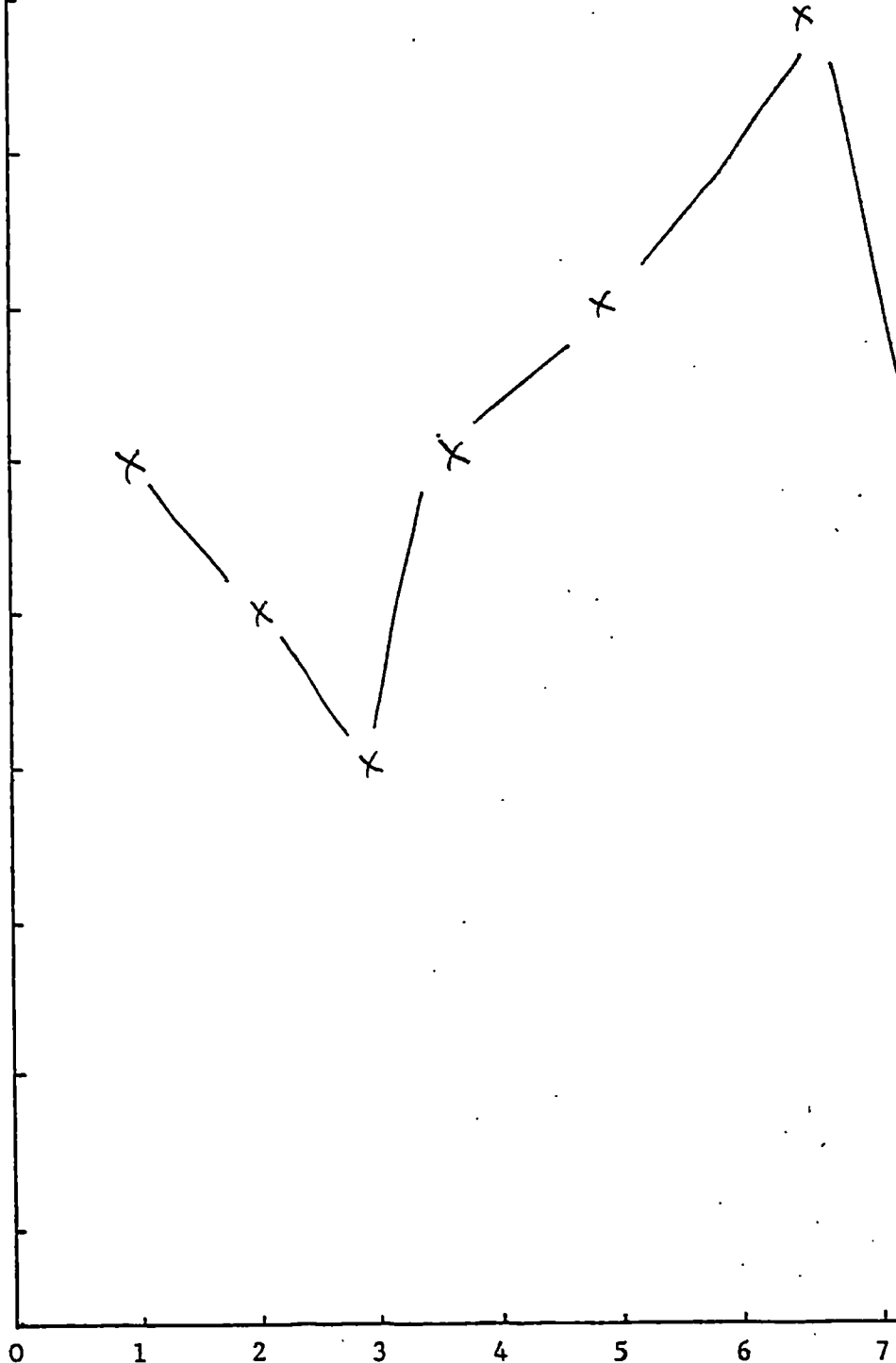
Extreme stress and tension.

Considerable sense of stress and tension.

Calm, relaxed mood.

Days

Please record the highest personal sense of stress which occurs
for 15 minutes or longer on any day.

Knowledge of behavioural principles

FORM A   Please tick one box only in answer to each question

1.   A good rule to remember is:

☐   Do NOT reward with money if possible.

☐   Catch a child doing something right.

☐   Reward good behaviour and always punish bad behaviour.

☐   Punishment is always unnecessary.

2.   A father is teaching his son to hit a thrown ball with a bat.
     Which of the following methods will probably most help his son to
     learn to hit?

☐   Let him try to hit the ball without saying anything, so
     the child can learn on his own.

☐   Occasionally tell him what he is doing wrong.

☐   Occasionally tell him what he is doing right.

☐   Tell him almost every time he does something right.

3.   If you want your child to develop proper study habits, you should:

☐   Encourage him to do his homework.

☐   Help him to see school as pleasant.

☐   Reward him whenever he studies.

☐   Give him good reasons why he will need school.

4. A child often cries over any small matter that bothers her.
    How should her parents react to best reduce her crying?

    ☐   Reward when she reacts without crying.

    ☐   Use a mild punishment when she cries.

    ☐   Try to find out what is really troubling the child
        and deal with that.

    ☐   Provide her with something interesting so she will stop crying

5. If you want to make a behaviour a long-lasting habit, you should:

    ☐   Reward it every time.

    ☐   First reward it every time and then reward it occasionally.

    ☐   Promise something the child wants very much.

    ☐   Give several reasons why it is important and remind the child
        of the reasons often.

6. Probably the most important idea to keep in mind when first changing
    behaviour is:

    ☐   To use both reward and punishment.

    ☐   To reward every time the desired behaviour occurs.

    ☐   To be flexible about whether or not you reward.

    ☐   To be sure the child understands why you want the behaviour
        to change.

7. Which of the following is most effective in getting a child to do homework?

☐ "When you finish your homework, you can watch T.V."

☐ "You can watch this show on T.V. if you promise to do your homework when the show is over."

☐ "If you don't do your homework tonight, you can't watch T.V. at all tomorrow."

☐ Explain the importance of school work and the dangers of putting things off.

8. Mrs Thomas found out that spanking her seven-year-old son, Bob, did not seem to stop him from using "naughty" words. A friend suggested that rather than spanking him, she should send him to be by himself. The room he is sent to should be:

☐ His own room, so he will still have something to do.

☐ Small and dark.

☐ As uninteresting as possible.

☐ A large room.

9 Which reward is probably best to help a 12-year-old child improve his arithmetic skills?

10p.
☐ A dollar for each evening he studies.

1p.
☐ A dime for each problem he works correctly.

£1
☐ Ten dollars for each A he receives on his report card in arithmetic.

☐ A bicycle for passing arithmetic for the rest of the year.

10. Jimmy sometimes says obscene words, but only in front of his mother. She has been shocked and makes her feelings clear to him. How should she react when he uses obscene words?

☐ Wash his mouth out with soap.

☐ Ignore him when he uses obscene words.

☐ Tell him how bad he is and how she doesn't like him when he uses those words.

☐ Explain to him the reason such words are not used.

Knowledge of behavioural principles

FORM B

1. Which of the following is most important for parents in controlling their child's behaviour?

   ☐ The rules the parents make about behaviour.

   ☐ The parents' understanding of the child's feelings.

   ☐ The behaviours to which the parents attend.

   ☐ Being strict, but also warm and gentle.

2. A boy loves football. What is most likely to happen if, each time he is playing nicely with his sister, his father invites him to play football?

   ☐ He will always be asking his father to play football.

   ☐ He will play nicely with his sister more often.

   ☐ He will be annoyed with his father for interfering with his activities.

   ☐ He will be encouraged to teach his sister to play football.

3. If you want your child to say "please" and "thank you" at the table, it is probably most important to:

   ☐ Reprimand him when he forgets to say them.

   ☐ Explain why good manners are important.

   ☐ Remember to compliment him when he remembers to say them.

   ☐ Praise other members of the family when they use these words.

4. A father tells a child she cannot go to the store with him because she didn't clean her room like she promised. Sha reacts by shouting, crying and promising she will clean the room when she gets home. What should the father do?

☐ Ignore her and go to the store.

☐ Take her to the store but make her clean her room when they return.

☐ Calm her down and go help her clean her room together.

☐ Talk to her and find out why she doesn't take responsibility.

5. A baby often screams for several minutes and gets his parents' attention. Which of the following is probably the best way for his parents to reduce his screaming?

☐ If there is nothing physically wrong with the child, ignore his screaming even though the first few times he screams even louder.

☐ Distract the child with something he finds interesting whenever he screams.

☐ Ignore all noises and sounds the child makes.

☐ None of the above. Babies usually have good reasons for screaming.

6. A child begins to whine and cry when his parent explains why he can' go outside. How should the parent react?

☐ Ask the child why going outside is so important to him.

☐ Explain that it is a parent's right to make such decisions.

☐ Explain again why he should not go outside.

☐ Ignore the whining and crying.

7. If punishment is used for a behaviour such as playing football in the house, which type is probably best to use?

☐ Make the child do extra homework.

☐ Clearly express your disapproval.

☐ Remove the child to a boring situation each time.

☐ A reasonable spanking.

8. Parents who use lots of rewards for good behaviour and few punishments will probably tend to have children who:

☐ Do not understand discipline.

☐ Will not co-operate unless they are "paid".

☐ Take advantage of their parents.

☐ Are well-behaved and co-operative.

9. Johnny has just torn up a new magazine. Of the following choices, which is the best way for his mother to discipline him?

☐ Tell him he will be spanked by his father when he gets home.

☐ Punish him then and there.

☐ Explain to Johnny about the wrongness of his action.

10.   Which of the following is probably most important in helping a
      child behave in desirable ways?

□   To teach him the importance of self-discipline.

□   To help him understand right and wrong.

□   Providing consistent consequences for his behaviour.

□   Understanding his moods and feeling as a unique person.

Target on our ••

How this is defined •••

CHART B

CHART A

Days

Days

No of times target behaviour occurs.

18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Appendix 1.10   Example of completed data collection sheet
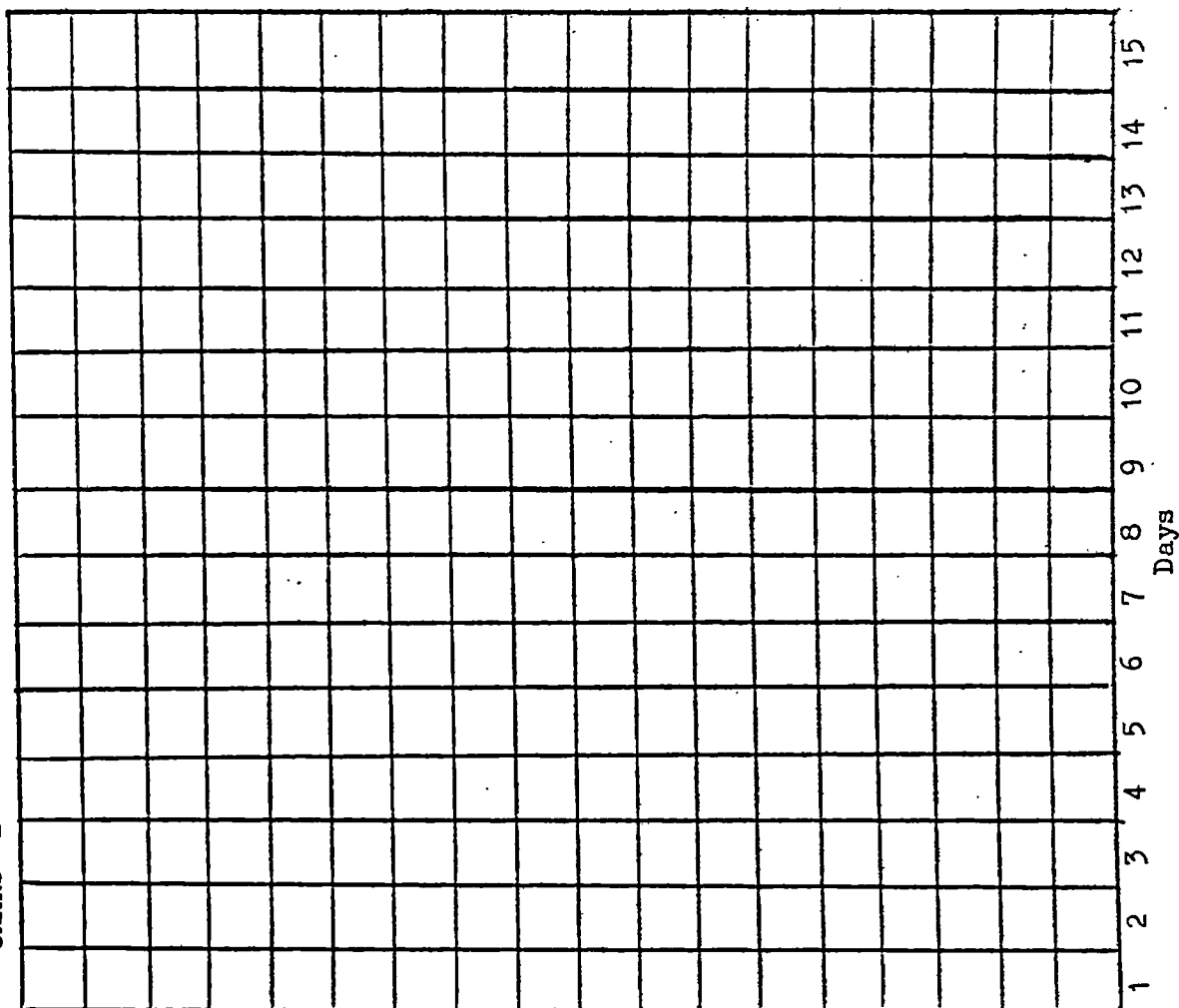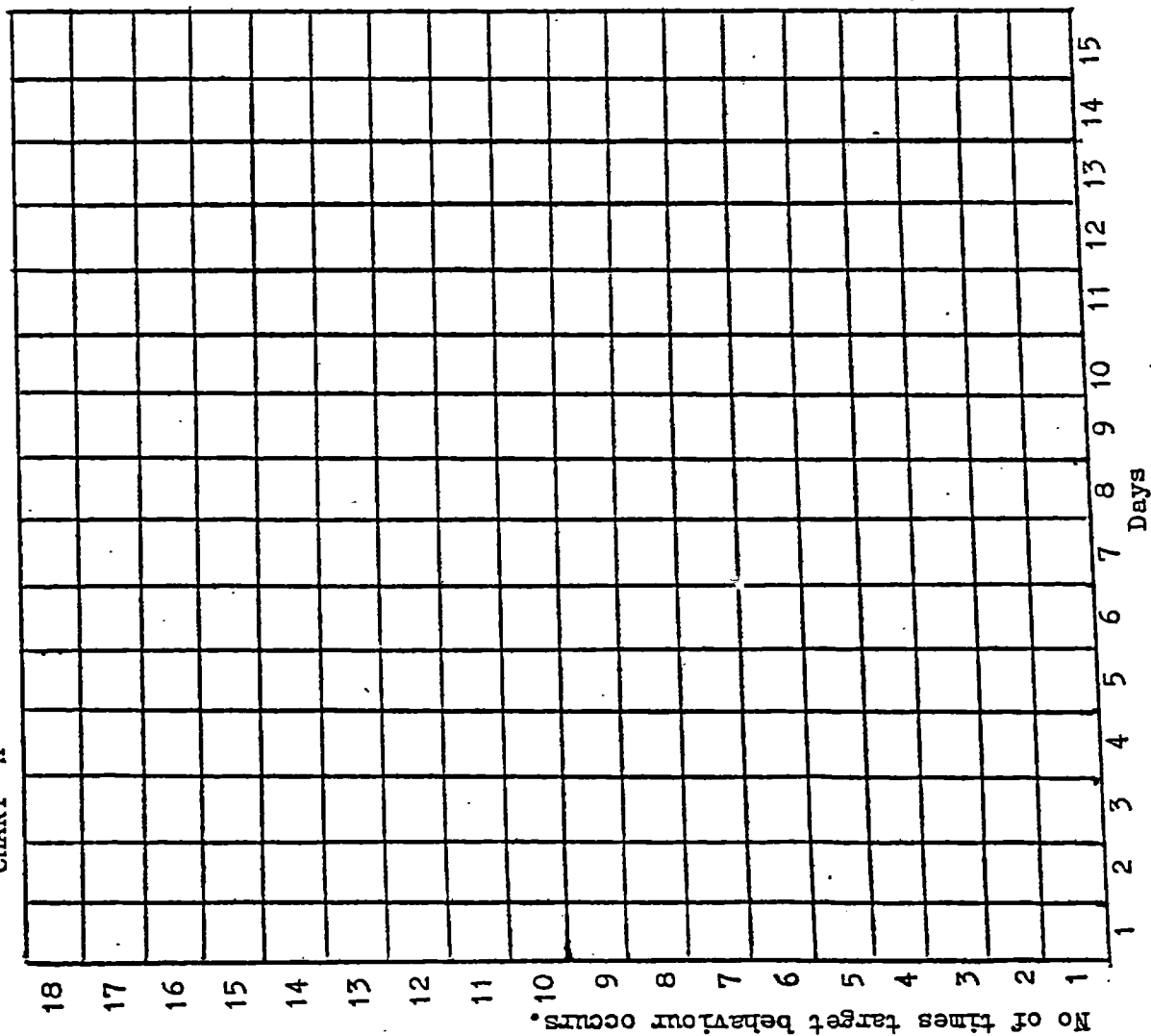
Target behaviour .... Disobedience / Non-compliance

How this is defined .... Not complying (negative), or complying (positive) with an instruction within 1 minute.

CHART A

CHART B

Days

No of times target behaviour occurs.

18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Negative: not complying with an instruction within 1 minute.

Positive; complying with an instruction within 1 minute.

Appendix 1.11   Statement of goals agreed with parents.   Progress monitored weekly.

STATEMENT OF GOALS

NAME.......................................   Date........................

1. ....   -5   -4   -3   -2   -1   0   1   2   3   4   5

   ....

   ....

   ....

2. ....   -5   -4   -3   -2   -1   0   1   2   3   4   5

   ....

   ....

   ....

3. ....   -5   -4   -3   -2   -1   0   1   2   3   4   5

   ....

   ....

   ....

4. ....   -5   -4   -3   -2   -1   0   1   2   3   4   5

   ....

   ....

   ....

5. ....   -5   -4   -3   -2   -1   0   1   2   3   4   5

   ....

   ....

   ....

6. ....   -5   -4   -3   -2   -1   0   1   2   3   4   5

   ....

   ....

   ....

3 Ddol Awel
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Clwyd .
12. 12. 84 .

Dear Carole,

Thank you for sending the report
it was very interesting. It also reminded
me to praise my children more often for
the little things that played such an
important part of Robins improvement.
He still has his moments of course
but generally has maintained the vast
improvement. He is now constantly in
the class room and even allowed to
attend school on the headmistresses
day off !!

I was safetly delivered of a
baby daughter, Katie Jane, on 15th
August 1984 who Robin adores. I was

in hospital a lot during the pregnancy and my husband had a lot of trouble with Robin but admits to hardly ever giving praise. we are all back to normal now. One point I must make is how much more confidant Robin is now. He accepts new places and people much happier. I am sure this to is due to the praise. All this being told he is good instead of how naughty he is has given him a lot of self confidance which really is obvious but when faced with a difficult child you don't stop to think reasonably very often.

Robins adoption is still not through though we hope it will be before.

3 \

next Easter,

I can't thank you enough for all your help and wish you every success in the future.

Have a lovely Christmas.

Best wishes
Chris Whelan (Cales)

Raw data relating to individual children: pilot study

Child	Sex	Age in yrs.	Lone par.	Children in family	Pos in family	Confirm no med. reason
Home visit method
A.B.	M	4.5	No	2	1	Yes
J.G.	F	2.1	No	2	2	Yes
J.H.	F	3.3	No	1	1	Yes
T.S.	F	2.1	No	2	1	·· Yes
G.W.	M	4.0	No	2	2	Yes
Total		16.0				
Mean		3.2				
S.D.		1.1				
Telephone method
J.B.	M	2.4	No	2	1	Yes
A.B.	M	4.0	No	2	1	Yes
T.C.	M	3.0	Yes	2	2	Yes
R.H.	M	4.0	No	3	3	Yes
B.W.	M	3.5	No	3	3	Yes
R.W.	M	3.7	No	3	1	Yes
Total		20.6				
Mean		3.4				
S.D.		0.63				

Raw data relating to individual children: main study

Group method (N=8)

Child	Sex	Age in yrs.	Lone par.	Children in fam.	Pos in family	Conf. no med. reason	Time used in work (mins.)
J.C.	F	4.2	No	3	1	Yes	289
A.S.	M	3.5	Yes	3	2	No	308
L.A.	M	1.8	No	1	1	Yes	333
G.T.	M	3.8	No	2	1	No	246
M.B.	M	3.0	Yes	1	1	Yes	246
A.D.	M	4.3	No	2	1	Yes	246
N.P.	M	3.5	No	2	1	No	246
A.T.	M	3.0	No	2	2	Yes	246
Total		27.1					2160
Mean		3.4					270
S.D.		0.8					35.2

	Pre-intervention							Post intervention							Follow-up				
Chld	AP	TB	HS	PS	NEG	POS	GL	AP	TB	HS	PS	NEG	POS	GL	AP	TB	HS	PS	GL
J.C.	13	4	22	30	23	43	0	8	4	28	14	38	59	1	-	-	-	-	-
A.S.	14	1	42	32	59	43	0	8	5	35	28	81	64	-	-	-	-	-	-
L.A.	9	4	28	34	38	34	0	2	9	5	10	20	78	-	4	7	8	5	2
G.T.	11	6	51	37	83	22	0	4	7	24	24	28	52	4	5	9	26	28	3
M.B.	18	2	92	39	59	33	0	10	10	32	39	10	17	3	17	-	55	22	1
A.D.	13	1	80	7	132	65	0	5	8	11	4	21	76	4	-	-	-	-	-
N.P.	8	3	85	44	77	23	0	4	6	18	15	19	56	4	9	5	18	-	4
A.T.	14	7	99	17	56	12	0	7	8	49	27	13	61	4	6	5	15	0	4

Raw data relating to individual children: main study

Home visit method (N=10)

Child	Sex	Age in yrs.	Lone par.	Children in fam.	Pos in family	Conf. no med. reason	Time used in work (mins.)
L.W.	M	3.5	No	2	1	Yes	420
M.B.	M	1.9	No	3	2	Yes	204
L.S.	F	4.4	No	3	2	No	388
R.M.	M	3.5	No	2	1	-	266
N.S.H.	M	3.3	Yes	2	1	Yes	362
K.E.	M	2.0	No	2	2	Yes	340
K.C.	F	3.5	No	1	1	Yes	350
T.M.	M	3.0	No	1	1	-	325
S.B.	M	3.0	No	2	2	Yes	445
J.E.	M	3.5	No	2	1	Yes	360
Total		31.6					3476
Mean		3.2					347.6
S.D.		0.75					70.5

	Pre-intervention							Post intervention							Follow-up				
Chld	AP	TB	HS	PS	NEG	POS	GL	AP	TB	HS	PS	NEG	POS	GL	AP	TB	HS	PS	GL
L.W.	12	0	64	37	106	41	0	1	3	22	0	86	50	3	2	6	12	5	4
M.B.	8	2	18	30	19	68	0	4	7	6	20	15	88	3	3	4	3	15	4
L.S.	14	0	50	43	79	27	0	2	9	4	7	17	90	4	7	9	11	12	4
R.M.	15	2	67	45	40	17	0	7	3	16	22	40	56	4	5	4	11	11	4
N.SH	15	3	59	30	128	16	0	5	0	3	10	9	60	5	3	5	12	9	5
K.E.	15	3	48	56	51	19	0	9	4	24	22	16	23	3	16	4	79	63	-5
K.C.	15	4	66	29	17	21	0	6	4	18	13	21	28	4	14	5	59	53	-4
T.M.	8	4	21	39	44	31	0	3	5	12	11	30	98	4	9	3	27	43	-1
S.B.	14	0	58	47	89	44	0	16	5	52	36	98	26	0	12	2	39	49	2
J.E.	16	4	59	27	171	68	0	2	4	2	14	95	218	5	5	4	8	9	5

Raw data relating to individual children: telephone method (N=12)

Child	Sex	Age yrs.	Lone par.	Children in fam.	Pos in family	No med reason	Time used (mins)
S.T.	M	1.0	No	1	1	Yes	188
C.C.	M	2.7	No	2	1	-	307
M.J.	M.	2.8	Yes	2	1	No	106
P.G.	M	2.1	Yes	3	3	Yes	231
A.B.	M	2.0	No	1	1	No	164
M.H.	M	1.7	No	1	1	-	121
M.D.	F	2.4	Yes	1	1	Yes	241
M.L.	M	3.8	Yes	1	1	No	104
J.W.	M	1.8	Yes	1	1	Yes	254
M.C.	M	1.9	No	1	1	Yes	215
J.H.	F	3.1	No	2	1	Yes	192
S.W.	M	4.1	No	2	2	Yes	149
Mean		2.45					189.3
S.D.		0.90					63.4

	Pre-intervention							Post intervention							Follow-up				
Chld	AP	TB	HS	PS	NEG	POS	GL	AP	TB	HS	PS	NEG	POS	GL	AP	TB	HS	PS	GL
S.T.	12	6	27	32	44	29	0	6	8	8	13	28	28	2	8	6	16	15	3
C.C.	14	3	53	34	61	22	0	4	4	14	16	36	27	2	8	3	40	39	-
M.J.	18	3	75	49	98	-	0	2	1	14	10	24	87	4	6	3	16	50	3
P.G.	18	7	48	45	90	21	0	4	10	6	25	41	34	2	-	-	-	-	-
A.B.	11	1	21	36	46	10	0	5	4	13	28	38	17	3	11	5	28	-	0
M.H.	9	2	17	39	47	35	0	0	8	3	14	22	43	5	-	-	-	-	-
M.D.	13	6	63	53	119	31	0	2	9	10	38	38	54	4	3	3	6	14	4
M.L.	6	6	4	24	11	24	0	2	5	12	12	10	20	-	-	-	-	-	-
J.W.	13	4	88	38	96	28	0	14	6	87	50	77	33	0	-	-	-	-	-
M.C.	10	3	35	39	20	24	0	7	6	39	28	42	45	4	9	3	31	43	3
J.H.	14	6	40	38	34	28	0	13	9	30	32	34	60	4	12	6	34	20	2
S.W.	10	4	26	36	17	69	0	4	7	13	8	4	54	4	16	4	21	-	2

Raw data relating to individual children: main study

Waiting list: (N=11)

Child	Sex	Age yrs. mos.	Lone par.	Children in fam.	Pos in family	Conf. no med. reason	Time used in work (mins.)
G.T.	M	3.8	No	2	1	No	30
J.F.	M	3.0	Yes	1	1	Yes	30
R.C.	M	4.5	No	4	2	No	30
M.B.	M	3.0	Yes	1	1	Yes	30
K.C.	F	3.5	No	1	1	Yes	30
M.D.	F	2.4	Yes	1	1	Yes	15
A.D.	M	4.3	No	2	1	Yes	30
N.P.	M	3.5	No	2	1	No	20
T.M.	M	3.0	No	1	1	-	20
S.D.	F	3.4	Yes	1	1	No	20
A.T.	M	3.0	No	2	2	Yes	15
Mean		3.4					24.5
S.D.		0.62					6.5

	Pre-intervention							Post intervention							Follow-up				
Child	AP	TB	HS	PS	NEG	POS	GL	AP	TB	HS	PS	NEG	POS	GL	AP	TB	HS	PS	GL
G.T.	13	5	46	42	-	-	-	10	4	31	34	-	-	-	-	-	-	-	-
J.F.	14	1	49	-	-	-	-	3	4	0	-	-	-	-	-	-	-	-	-
R.C.	12	3	85	-	-	-	-	16	2	65	-	-	-	-	-	-	-	-	-
M.B.	17	3	75	58	-	-	-	17	5	68	28	-	-	-	-	-	-	-	-
K.C.	10	3	39	22	-	-	-	15	4	66	29	-	-	-	-	-	-	-	-
M.D.	12	3	74	43	-	-	-	13	5	64	53	-	-	-	-	-	-	-	-
A.D.	19	1	64	10	-	-	-	13	1	80	7	-	-	-	-	-	-	-	-
N.P.	11	4	78	44	-	-	-	8	3	85	44	-	-	-	-	-	-	-	-
T.M.	12	2	17	35	-	-	-	8	4	21	39	-	-	-	-	-	-	-	-
S.D.	16	5	56	60	-	-	-	13	4	84	58	-	-	-	-	-	-	-	-
A.T.	15	5	82	37	-	-	-	14	7	99	17	-	-	-	-	-	-	-	-

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Raw data relating to success rates of individual children:

measured by AP score

Group method: (N=8)

Child	Pre-intervention AP	Post-intervention AP	% imp	Follow-up AP	% imp
J.C.	13	8	38.47 (F)	-	
A.S.	14	8	42.86 (Int)	-	
L.A.	9	2	77.78 (S)	4	55.56 (Int)
G.T.	11	4	63.64 (S)	5	54.55 (Int)
M.B.	18	10	44.45 (Int)	17	5.56 (F)
A.D.	13	5	61.54 (S)	-	
N.P.	8	4	50.00 (Int)	9	-12.5 (F)
A.T.	14	7	50.00 (Int)	6	57.15 (Int)

No of 'Failures'	1	2
No of 'Intermediate successes'	4	3
No of 'Successes'	3	0
No of sets of missing data	0	3

Key		
	0 - 39%	Failure
	40 - 59%	Intermediate success
	60 - 100%	Success

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Raw data relating to success rates of individual children:
measured by AP score

Home visit method: (N=10)

Child	Pre-intervention AP	Post intervention AP	% imp	Follow-up AP	% imp
L.W.	12	1	91.67 (S)	2	83.34 (S)
M.B.	8	4	50.00 (Int)	3	62.5 (S)
L.S.	14	2	85.72 (S)	7	50.00 (Int)
R.M.	15	7	53.34 (Int)	5	66.66 (S)
N.SH	15	5	66.66 (S)	3	80.00 (S)
K.E.	15	9	40.00 (Int)	16	-6.67 (F)
K.C.	15	6	60.00 (S)	14	6.67 (F)
T.M.	8	3	62.50 (S)	9	-12.5 (F)
S.B.	14	16	-14.20 (F)	12	14.29 (F)
J.E.	16	2	87.5 (S)	5	68.75 (S)

No of 'Failures'	1	4
No of 'Intermediate successes'	4	1
No of 'Successes'	6	5
No of sets of missing data	0	0

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Raw data relating to success rates of individual children: measured by AP score

Telephone method: (N=12)

Chld	Pre-intervention AP	Post intervention AP	% imp		Follow-up AP	% imp	
S.T.	12	6	50.00	(Int)	8	33.34	(F)
C.C.	14	4	71.43	(S)	8	42.86	(Int)
M.J.	18	2	88.89	(S)	6	66.67	(S)
P.G.	18	4	77.78	(S)	-		
A.B.	11	5	54.55	(Int)	11	00.00	(F)
M.H.	9	0	100.00	(S)	-		
M.D.	13	2	84.62	(S)	3	76.93	(S)
M.L.	6	2	66.67	(S)	-		
J.W.	13	14	-7.69	(F)	-		
M.C.	10	7	30.00	(F)	9	10.00	(F)
J.H.	14	13	7.15	(F)	12	14.29	(F)
S.W.	10	4	40.00	(Int)	16	-60.00	(F)

No of 'Failures'	3	5
No of 'Intermediate successes'	3	1
No of 'Successes'	6	2
No of sets of missing data	0	4

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