6 The nurturing approach – a teacher-aide programme

Summary

The nurturing approach is a way of attempting to *prevent* the continuation or deterioration of behavioural and social disturbance and educational failure in junior schoolchildren. We describe different types of preventive activities (primary, early secondary, late secondary, tertiary), our teacher-aide programme being an example of secondary prevention.

We discuss the origins of the teacher-aide programme, the rationale for basing preventive programmes in schools, and that for the use of non-professionals in mental health work.

In our scheme, seven non-professional, part-time teacher-aides each worked directly with seven to ten selected junior schoolchildren while under the supervision of the class teachers in the six schools involved. The object was to provide, over the five-school-term duration, the type of interaction characteristic of a healthy mother-child relationship, which includes warmth, interest, and acceptance, together with the ability to be firm when necessary. This is the essence of a nurturing approach. As well as this nurturing component, we used a *behaviour-shaping* technique. In this, improved behaviour is achieved through a learning sequence of small, progressive approximations to that behaviour. In some minor respects, therefore, the teacher-aide programme was similar to the behaviour modification programme employed with the older children.

We give a detailed account of how the teacher-aide programme was planned and introduced into the schools involved. The teacher-aides were selected, from a large number of applications, on the basis of personality traits, positive family and community functioning, and

other relevant characteristics. The panel was unanimous in the final choice of aides.

The teacher-aides had six main functions: (a) to develop nurturing relationships with the treated children (and sometimes with others in the class); (b) to provide these children with a warm, supportive figure who, we hoped, would constitute a model for them; (c) to assist the teacher by helping individual children in difficulty; (d) to help the treated children with behavioural difficulties by means of behavioural shaping; (e) to help the teacher in the day-to-day running of the classroom; (f) in addition to working under the teacher in the classroom, to spend time outside the classroom, with individuals or groups of children undergoing treatment, involved in activities that would give them additional encouragement and support.

We describe how the teacher-aides received a course of training and were gradually introduced into the schools. An introductory seminar course for the teachers involved was held and any anxieties felt by the teacher or teacher-aides were discussed. We attempted to involve parents in our project, but this plan was restricted by lack of staff.

We discuss some of the potential and actual problems we faced with this treatment approach. These concerned: divided authority and dual loyalties; difficulties of communication between project staff, teachers, and teacher-aides; the fact that the teachers involved were *not* volunteers, and that they differed in teaching experience and style, and in their attitude to the children and the programme; continuity of a child's contact with the teacher-aide throughout five school terms; the relationship between teacher and teacher-aide in the classroom setting; space and timetabling; the responses of the other children in the class. This discussion has led us to suggest improvements detailed in the body of the chapter.

In a subjective evaluation of the programme, we discuss the teachers' and teacher-aides' impressions of the scheme. Overall, the responses were very favourable: the programme seems to have been beneficial for both groups.

We next discuss whether or not the children also benefitted from the teacher-aide programme. We tried to assess this by objective measurements of outcome and improvement. The outcome of this treatment for the treated children was significantly better than for the at-risk controls in terms of overall severity of disturbance at the final follow-up. As far as improvement was concerned, the main changes occurred in aspects of classroom-related behaviour. Consistent improvement occurred both in reduction in antisocial behaviour (as reported by the parents) and in certain items of classroom behaviour (as reported by teachers). There were similar trends for neurotic and antisocial behaviour as rated clinically.

We believe that a preventive approach in schools constitutes a unique opportunity to reach large numbers of children in difficulty. In addition, our experience with this project has convinced us that there are many lay and professional people in the community who, in conjunction with school staff, can make an important contribution to the prevention of maladjustment.

A review of the literature

PREVENTION OF MALADJUSTMENT

Over the last decade mental health workers have become increasingly aware of the potential value of preventive approaches, both in their primary and secondary forms (Caplan 1964), and such slogans as 'Cure is costly – prevention is priceless' have been used (Lamb and Zusman 1979). Modifications of these approaches have been described by Cowen (1973). So far, one of the main foci of preventive work has been the optimizing of school environments (Allinsmith and Goethals 1962; Cowen *et al.* 1972; Boxall 1973). In theory, such a prevention model has far greater mental health potential than any hospital- or clinic-based treatment programme.

PREVENTIVE ACTIVITIES

Primary preventive activities in child mental health focus on those environments that have a major influence on children's development, especially the home and the school. Such activities attempt to prevent the development of subsequent disorder by attacking what are assumed to be its origins, and simultaneously promoting psychological adjustment (Sandford 1965). Such approaches do not directly focus on individual distress.

Secondary preventive activities can be considered under two broad headings. The first, early secondary prevention, tries to identify children who are considered to be at grave risk of developing abnormally, whether intellectually, socially, or emotionally, and to prevent dysfunction from becoming severe or overt. Late secondary prevention tries to identify children with relatively mild or moderate disorders and is followed by attempts to reduce the duration and severity of the disorders, to prevent them becoming chronic, and to minimize repercussions in other areas of functioning (Bower 1969). Tertiary prevention is directed at entrenched disorders and its main aim is to reduce misery, discomfort, and impairment to a minimum (Cowen 1973). We take the view that the terms 'late secondary prevention' and 'tertiary prevention' are misleading because these approaches are not essentially preventive – we suggest that they should be viewed primarily as forms of treatment.

Most of the glamour of preventive research is attached to primary prevention, which commonly suggests better child-rearing practices or mental health education. However, the present position of primary prevention is distinctly unsatisfactory, with progress being impeded by a lack of clarity of basic assumptions and concepts, and inadequate specification of precise objectives and types of illnesses to be avoided. Secondary prevention (which is the approach that we have used in the teacher-aide programme) has less obvious initial appeal but is, in fact, a considerably more attractive proposition because it focuses on early diagnosis of reasonably specific problems and the prevention of further developments by specific treatment. Nevertheless, claims that preventive endeavours in early childhood will reduce the likelihood of emergence of psychiatric disorders in later childhood and adulthood so far remain unproved.

THE TEACHER-AIDE PROGRAMME – A PREVENTION MODEL

While all three of the intervention programmes used in the junior schools (parent counselling-teacher consultation; playgroups; nurture work) can be considered to have both therapeutic and preventive components, the nurture work (teacher-aide) programme, which attempts to compensate for inadequate stimulation and adverse early life experiences by direct intervention within the school and which uses few traditional psychotherapy approaches, can be considered to be more essentially preventive of the three. A similar view has been advanced by the Rochester University group in the USA (Cowen *et al.* 1971a).

The origins of a teacher-aide programme

This is by no means a recent innovation. Since 1958, the Rochester University group (Zax *et al.* 1968; Cowen and Zax 1969; Cowen 1971a, 1971b, 1973; Cowen *et al.* 1971a, 1972, 1975a; Cowen, Dorr, and Orgel 1971b) has been developing methods of identifying and preventing emotional disorders in children by providing immediate help as soon as difficulties are noticed. This help has been given through a variety of approaches, the non-professional approach being a major one. Cowen demonstrated this with a group of junior schoolchildren who were identified as having some behavioural or social disturbance. These children did *not* receive special help and after a three-year period they performed significantly less well on 70 per cent of the measures used than a control group of 'normal' children (Cowen, Dorr, and Orgel 1971b). When the 'disturbed' children were provided with child-guidance support they did significantly better (on a number of cognitive and adjustment measures) than an untreated at-risk control group. This was also the case when a teacher-aide service was provided. By current standards these experiments are suspect because of the small size of the samples and the subjectivity of many of the evaluatory criteria. Furthermore, the experiments provided little evidence of long-term effects; nor did the findings suggest what types of disorder responded to what kinds of help. Nevertheless, as hard evidence is scarce, the series has provided valuable empirical pointers that cannot be ignored.

In the UK the Plowden Report (1967) recommended that classroom auxiliaries, placed under the supervision and direction of a teacher, should help individual children. The report proposed that auxiliaries should be trained for employment throughout the junior stage of education and that this training should equip them for wider functions than those of welfare assistants. As we describe later, we have interpreted those wider functions in terms of mental health care.

Rationale for school-based preventive programmes

In a series of papers Cowen and his group have outlined the advantages of locating a preventive programme within the school (Cowen *et al.* 1971a, 1975a). There are three main points. First, during the school term children spend approximately half of the waking day with their teachers who are, in theory, strategically poised to provide immediate and essential help. Second, if children can be helped at school, rather than at a special institution they are less likely to be perceived or labelled as different and thus can avoid acquiring a social stigma. Third, if children remain in close contact with their existing school and community environment during treatment they will not be confronted with the problems associated with the transition back to normal education, which would occur if they were taken from the ordinary school system for treatment.

Rationale for use of non-professionals

In terms of mental health work in schools different bodies in the USA have become increasingly interested in the use of non-professionals in the application of widely differing approaches. The reasons for such interest are described elsewhere (Grosser, Henry, and Kelly 1969; Sobey 1970); here we will merely consider the rationale for using non-professionals in the school setting.

There is undoubtedly a grave shortage of mental health professional manpower; if alternative ways of helping disturbed children could be provided this would release such professionals for more specific or complex tasks (Cowen *et al.* 1971a), and immediate help could be made available from both professional and non-professional sources at times of crisis. Second, there are important economic considerations. Employing teacher-aides is relatively inexpensive and the amount of time they could spend with a child is far more than any professional could offer. Third, the characteristics of maturity and enthusiasm, a sense of devotion, maternal warmth, an ability to stimulate children, natural wisdom and skills in child-rearing, which are the main ingredients of the help we would like to see provided, are not the prerogative of trained professionals, being apparent in many lay people. Fourth, there are some quantifiable personal characteristics (so-called psychotherapeutic characteristics) that are thought to be associated with the ability to help or counsel others and, again, these are not confined to the trained professional (Truax and Carkhuff 1967). Many people with emotional problems have reported that they obtained satisfactory help from non-professionals (Gurin *et al.*, Veroff, and Feld 1960; Sobey 1970). Fifth, it is possible that traditional psychotherapeutic approaches may not be particularly applicable to the underprivileged, whose needs are greatest (Mayer and Timms 1970) and that they may benefit to a greater extent from less orthodox approaches. Sixth, people may be more likely to model their behaviour on someone whose social background is not too different from their own.

Some comment is necessary about the potential conflicts that might arise from 'cooking in the same kitchen'. These have been described by one set of authors (Zax *et al.* 1966) and, more recently, a list of six 'teacher doubts' has been presented in a paper describing the use of auxiliaries in the classroom (Kennedy and Duthie 1975). The 'doubts' are as follows: that teachers would be inhibited by the presence of another adult in the class; that auxiliaries might engage in teaching; that the funding of auxiliaries would prevent money being spent on employing teachers in order to reduce class size; that auxiliaries would create friction between pupils and teachers; that auxiliaries were not necessary; and, finally, that the time spent in preparing and planning for an auxiliary would outweigh the advantages of his or her presence.

There can be no doubt that the introduction of a teacher-aide into the classroom would produce changes, primarily that the teacher would no longer be working in isolation and that he or she would have to take on the additional activity of supervision of the teacher-aide (Natzke and Bennett 1970). In our opinion, though, the advantages cited earlier outweigh the disadvantages and we therefore argue strongly for the use of non-professionals in early secondary prevention. In addition, there are several (admittedly debatable) arguments for having more than one adult in the classroom. For example, there is evidence that, in the disadvantaged areas of a city, a teacher can spend from 50 to 80 per cent of the time in non-teaching activities, such as discipline and classroom organization (Deutch 1960). A second adult can help release the teacher from these activities, thereby allowing him or her to dedicate more time to teaching activities and to work individually with a greater number of children. With an additional person in the classroom the problems of control and discipline become less conspicuous (O'Leary 1972), provided that there is a good working relationship between the teacher and teacher-aide.

The teacher-aide programme in action

INTRODUCTION

The main objective of this approach is to provide, in ordinary school classrooms, compensatory nurturing for disturbed, disadvantaged, and deprived young children (Hulbert, Wolstenholme, and Kolvin 1977). The concept of compensation is a familiar one to teachers and is similar to that underlying the enrichment programmes characteristic of the Head Start projects in the USA. The Rochester University group in the USA spearheaded the introduction of non-professional personnel into schools (Cowen 1971a, 1973; Cowen *et al.* 1971a, 1975b). In the UK the nurturing component of this scheme was developed in the Woodberry Down Child Guidance Clinic in London (Boxall 1973). Both Cowen's and Boxall's contributions were invaluable in planning the Newcastle upon Tyne teacher-aide programme.

The role of the traditional classroom aide/auxiliary in British schools has been perceived mainly as that of a domestic helper. More recently, recommendations from the Plowden Report (1967) and the Scottish Educational Department (Duthie 1970; Kennedy and Duthie 1975) have suggested the need for a classroom aide with a much wider role than was previously envisaged.

Our scheme, which we have designated a 'teacher-aide programme in ordinary schools', involved seven non-professional, part-time teacher-aides each working directly with the seven to ten selected children while under the supervision of one of the fifteen teachers involved. They were attached to the six junior schools involved from January until July of the following year; one school had two aides.

We were more concerned with the emotional and behavioural aspects of the child's life than with academic progress. The essence of a nurturing approach is to provide the type of interaction characteristic of a healthy mother-child relationship, which includes maternal warmth, interest, and acceptance, together with firmness when necessary.

The teacher-aides were carefully selected and, although given some training, they were encouraged to retain their natural style of relating to the children (Hulbert, Wolstenholme, and Kolvin 1977). Regular consultations between teachers, teacher-aides, and mental health professionals from the project team (a clinical psychologist and a psychiatric social worker) were the bases for the implementation of treatment objectives which were tailored to individual children. The teacher-aides were involved in direct management and care of children, in addition to the usual domestic duties. As well as emphasizing nurturing skills, their training included the use of child-management techniques. These were designed to promote in the child a greater ability to accept personal behaviour limits and to facilitate in the teacher-aide greater consistency in child handling. However, behavioural shaping did not predominate in the programme. In order to determine the long-term effects of the programmes, pupils were followed up for three years after the introduction of the scheme and regular assessments provided the basis for the evaluation described later in this chapter.

THE NURTURING AND BEHAVIOUR-SHAPING COMPONENTS

Boxall's work at Woodberry Down, mostly with West Indian schoolchildren, suggested that the nurturing approach described on page 139 is a viable method for helping children to cope with, and adjust to, some of the demands of school life and the problems characteristic of multiple deprivation. Boxall suggested that such disadvantaged children cannot cope when they are suddenly catapulted into an orderly and structured school situation. She argued that they do not learn the personal controls necessary for behaving in a socially acceptable way and that the achievement of these controls is inhibited by socially and psychologically disorganized home backgrounds. She based her approach on the concept 'what a good mother does is right' and, by studying the skills of mothers, she attempted to define the processes by which socially important behaviours are acquired, such as the ability to wait, share, be co-operative, delay satisfaction, and feel concern for others. From the results of her analysis, she tried systematically to build into her treatment programme these essential elements. Her workers started by concerning themselves more with what the child could actually achieve (the development level reached by the child), than with age-related expectations. Thus, mother-child interactions that might be thought appropriate for younger children were important aspects of her scheme.

The behaviour-shaping component was a supplementary theme, applied in order to achieve complex behaviour through a learning sequence of small, progressive approximations to that behaviour. Boxall used this to encourage the acquisition of personal controls, such as improving a child's ability to wait for gratification, for instance, in sharing food.

In the Newcastle upon Tyne scheme, our aims were similar. While a nurturing approach is essential to further the achievement of such long-term aims as helping the child towards personal and social adjustment, it also aims at developing an intrinsic motivation towards learning. There are, in addition, the important short-term goals of helping the child to cope better with stress, and adapt to the demands of the school and classroom by developing healthy relationships with peers and adults. Such goals are facilitated by improving the classroom atmosphere, by increasing the frequency of acceptable behaviour, and by decreasing the frequency of inappropriate behaviour.

Many educationalists would challenge the long-held maxim that learning is its own reward (Montessori 1964; Hodges 1972). However, forms of external reward are inherent in every teaching situation. Not even the simplest exchanges between teacher and child are free from the reinforcing influences of gaze, tone, and gesture (Pines 1967; Brophy 1972). When appropriate reinforcement is used in a systematic manner it can help to achieve desired changes in social behaviour and classroom learning. An account of the efficacy of such techniques is provided in Chapter 5 where, in a review of the literature, we describe how various experimentally controlled changes in the teacher's behaviour are followed by changes in the child's behaviour. The teachers implemented classroom rules, offered praise and approval of appropriate behaviour, and ignored inappropriate behaviour. The researchers found that whereas the introduction of rules did not appreciably reduce the frequency of inappropriate behaviour, and that ignoring inappropriate behaviour produced inconclusive results, in contrast, praise for appropriate behaviour and indifference towards inappropriate behaviour were the key techniques for improving classroom management. Many workers have indicated that contingent praise is an essential part of successful classroom management.

Operant conditioning procedures, designed to complement the nurturing component, were employed by both teachers and teacher-aides under the guidance of the project team. Such programmes were tailored with the needs of individual children and total classroom management in mind. In some respects, therefore, the teacher-aide programme was similar to the behaviour modification programme employed with the older children.

SELECTION OF THE TEACHER-AIDES

A single advertisement for teacher-aides was placed in a local newspaper and attracted 120 replies. Therefore, we in Newcastle upon Tyne found, like Cowen in the USA, that there are large, untapped resources in the community with the potential to help children in distress. Perhaps one reason for the good response to the advertisement was that mothers prefer working outside the home during, rather than outside, school hours.

In selecting suitable staff Cowen *et al.* (1971a) looked for applicants with warmth and an interest in people, who had successfully reared their own children. The supporting criteria were the talent, interest, and time to be involved in socially useful activities, evidence of a liking for children, a flexible approach to child-rearing, freedom from any emotional complaints, and an appreciation and acceptance that the successful candidate would take a secondary role in the classroom.

Our criteria, which were broadly similar, are listed below. They are not in any order of importance but indicate those characteristics we considered essential in prospective teacher-aides:

(i) a personality displaying adequate degrees of those therapeutic qualities identified by Truax and Carkhuff (1967) namely, warmth, empathy, and genuineness; in addition we sought evidence of stability and maturity;

(ii) experience of positive family functioning, including an ability to cope successfully with the normal problems of child rearing, a flexible approach to child management, and evidence of an active interest in undertaking this kind of work;

(iii) experience of positive community functioning, including signs of being the kind of person whom others approached with their problems, an ability to be discreet and be respectful of the confidences of others, and enthusiasm for, and experience of, working with children.

Other important pointers that were taken into consideration were the applicants' ability to appreciate the day-to-day difficulties confronting teaching staff, and their acceptance of the idea of supervision and training. We also looked for working-class origins, in that the applicants, or their parents, were not too far removed in occupational class from the community in which they were to work. Although this last point is still debatable, some studies have suggested that a person who has experienced a working-class environment is likely to be able to understand and deal more sympathetically and effectively with the problems encountered in such environments (Riessman and Popper 1968; Grosser, Henry, and Kelly 1969).

Screening of teacher-aides by selection panel

The selection panel consisted of a psychiatrist, a social worker, a clinical psychologist, the Headteacher of the school to which the teacher-aide would be attached, and a senior representative of the local education authority. Initial screening, on the basis of application and references, reduced numbers so that we eventually interviewed, for each of the seven available posts, seven to ten candidates. Contrary to our expectations, the decisions about appointments were unanimous in every case, despite the diverging views between the project team and the eductionalists about selection criteria. We discuss the qualities of the teacher-aides more fully later in this chapter.

THE ROLE OF THE TEACHER-AIDE

The teacher-aides in the Newcastle upon Tyne project were involved with the management and care of the child, and had six main, and often overlapping, functions. We carefully took into consideration the teacher-aides' 'natural' way of relating to children, which we regarded as very important and which was to remain, for the most part, unhindered. The functions were:

(i) to develop with the 'target' children (and sometimes with other children in the class) relationships that fulfilled their assumed needs for nurturing, adopting both a maternal role and supplying the 'vital ingredients' of warmth, security, and firmness;

(ii) to provide the target children with a warm and supportive figure who, it was hoped, would, in addition to the teacher, constitute a model for them;

(iii) to assist the teacher by helping individual children who were in difficulty or who had asked for help with a task; these were essentially non-teaching duties which Duthie described as 'supervision duties', examples being 'checking that the pupils are following their work cards in order; . . . helping pupils with minor problems in the *uses* of material' (Duthie 1970:8);

(iv) to help the target children with their behavioural difficulties by use of behavioural shaping;
(v) to help the teacher in the domestic running of the classroom, preparation of craft and educational material, first aid, and so on; Duthie (1970) described these as 'housekeeping duties' since they comprise those duties which have to do with the day-to-day running of the non-educational aspects of the school;
(vi) in addition to working under the teacher in the classroom, to spend time with the target children, either individually or in small groups, outside the classroom, engaged in discussion, project work, and craftwork (and any other activity that would provide these children with additional encouragement and support).

TRAINING THE TEACHER-AIDES

Again, we were able to benefit from the Rochester experience. We abbreviated, modified, and selected from the Rochester teacher-aide training manual according to our needs, and added a section on behaviour modification. Like Cowen, we offered this manual to the teacher-aides as a resource to be used as a broad guide, rather than as a 'book of rules'.

A fifteen-hour seminar course was also provided. The course covered such areas as:

(i) a review of the aims and methods of our programme, including the philosophy of the preventive approach;
(ii) the employment of non-professionals in mental health work;
(iii) the school – implications of working within a school, the school structure and type of communications;
(iv) the handling of disturbed children – this included an account of the broad types of problem behaviour encountered in childhood, discussion of their management, and also the principles of behaviour modification; it is important to emphasize that these management themes were broached at an introductory level, as we wished to promote, and not to inhibit, the teacher-aides' own natural way of relating to and managing children;
(v) behaviour – the essential principles of observing and describing behaviour were discussed (this was necessary because the teacher-aides were expected to keep a diary and to record events);
(vi) the contentious subject of confidentiality, emphasizing that frank exchanges of information, which are often necessary in such work, should remain confidential to the helping team.

A video tape-recording of adult-child interaction provided the focus for two three-hour discussions on child management, and later there were informal discussions (for about three hours) focusing on individual children with whom the teacher-aides were working. After this introductory course at the research department the teacher-aides were gradually introduced into the classrooms over a two-week period.

A fortnight later the class teachers met as a group for two three-hour sessions to discuss similar topics, but with particular emphasis on the behaviour-shaping element.

By consensus of opinion the teachers elected for the teacher-aides to work for the second half of the school day only, as this was a time when less formal teaching activities were undertaken. Each of the seven teacher-aides were responsible for seven to ten children over the five-term period of treatment.

Teacher involvement

INTRODUCING THE PROGRAMME INTO SCHOOLS

As the teacher-aide programme was part of a larger experimental preventive mental health programme the seven classes in this part of the scheme were chosen randomly; consequently, the teachers involved were not volunteers. The approach to the schools was initially made through the Headteachers, who then introduced the idea to those teachers whom we hoped to involve in the programme. From then on, the project team met the teachers concerned and discussed more fully the implications and functions of the teacher-aide. In the beginning, everyone involved felt anxious about, for example, the possibility of the teacher-aides seeing themselves, or being seen, as able to function autonomously or of usurping the authority of the class teacher, and of the children not knowing who was in charge of the class. The educational content of the teacher-aides' tasks was also of concern. Many of these anxieties were openly discussed before the scheme started in the schools. For instance, it was agreed that it would prove impossible for every task to be completely free of educational content, but such content was to be kept to a minimum and was entirely at the teacher's discretion.

The introduction of the teacher-aides to the classroom was staggered throughout the six experimental schools for practical reasons; during this period, the above-mentioned introductory seminar course for teachers was held. It was stressed at this time that no one could foresee all the possible problems and, as the scheme was evolving, a number of operational decisions would have to be made. Hence, a certain amount of flexibility was required of each teacher/teacher-aide pair. Liaison between project team and each teacher/teacher-aide pair was arranged on a regular fortnightly basis, and took the form of thirty- to forty-minute discussions on the management of individual children and emergent problems concerning the project in general. It was stressed that the project team was available between these times, if required, and we found that the teacher-aides consulted the team more than did the teachers. During the project period teachers were asked to meet as a group at least once a term to discuss problems and to share ideas. The project team would have liked these meetings to occur more frequently but timetabling problems prevented this.

THE WORK OF THE TEACHER-AIDES

The daily duties of the teacher-aides and how they worked obviously varied. Each teacher-aide kept a diary, and we include two extracts, from different diaries, to illustrate some aspects of their work.

Diary 'A'

'Maureen always used to avert her eyes when I smiled at her, now she gives a quick smile back then immediately looks away. A pity she is absent from school so often as I seem to get back to square one in gaining her confidence. She comes quietly to ask if I'll hold her hand to the library on a Monday.

She will request help for spellings, reading, etc. only after I have made the first approach to her.

She appears to be friendly with another girl in the class; I suspect it may be that Maureen always has sweets for playtime, but at least she is with someone in the playground and not on her own.

Mrs. M. (teacher) will praise Maureen for any effort shown and tells her to come and show me her good work. Once Maureen is praised for something she goes back to her desk and proceeds to continue her work but is soon back to show what else she has done. It is apparent she is delighted.'

Diary 'B'

'Waited for children to go along to classroom, chat with children as we go. Headmaster wanted a word with the teacher. Looked after the children, talking to them until the teacher came to take them into classroom.

Teacher gave them a lesson about Canada; I had brought Canadian coins for the children to examine. As soon as teacher had finished explaining what she wanted from the children I started to help children with their lessons, mainly in the way of helping them to find the answers themselves by talking to them and leading them to find the answers; sharpened a pencil for one child who was having trouble. Helped children with spellings and work generally. At all times helping the target children with encouragement and whichever way they needed help, i.e. spelling, finding answers, etc. Very busy period until break.

2.45 p.m. Teacher finished story she wanted children to write about. 3 p.m. Took Alan along to another teacher's room to work quietly. Seemed to settle and quiet him and he worked quite well. Colin came along about 3.20 p.m. and both boys worked until 3.30 p.m. Assembly in the hall at this time, helped all the children to get into line and marched into hall to see older children receive swimming certificates. Took children back to classrooms for them to get their coats and to see them off home. A large number of children always kiss me when they leave.'

Parental involvement

THE PARENTAL SCHEME

To complement the school-based work, a parallel parental scheme was organized at a later stage, i.e. in the third term of this treatment. These contacts with parents were spread over two terms. This had three basic aims. The first was to describe more fully the work of the teacher-aide programme to the parents of the target children. The second was to provide guidance and support to parents in coping with the problems of disadvantage, and the third was to recruit parents to attend group sessions that were organized in their local school.

MOTHERS' INVOLVEMENT IN THE SCHEME

At group meetings mothers were given an opportunity to discuss with the teacher and teacher-aide their child's behaviour and progress. In addition, themes common to all parents were raised and discussed. As a playgroup was simultaneously organized, mothers were able to observe their children at play.

Because of the lack of sufficient project team staff to visit mothers the parent programme was severely restricted in achieving its objectives. However, all parents were visited at home at least once but only 40 per cent of mothers attended at least one of the three group meetings. Nevertheless, this attendance rate was higher than that usually reported in work with disadvantaged families (Chilman 1973).

THE ROLE OF FATHERS IN NURTURING

We do not deny that fathers have an important role in nurturing children and, indeed, certain children's problems may stem in part from the absence of a father or father figure to whom they can relate. However, there were obvious practical difficulties in attempting to involve men as teacher-aides in experimental nurture work programmes, but in any future project the possibility needs to be borne in mind.

It needs to be noted that parental involvement in the group sessions was limited to mothers mainly because such groups were organized at times that were inconvenient to fathers. However, there was some contact with fathers during home visits.

Some practical problems

DIVIDED AUTHORITY AND DUAL LOYALTIES

Initially, all the project teachers expressed anxiety about having an additional person in their classroom. From our review of the literature we had anticipated this problem and have summarized the arguments earlier in the chapter. To recapitulate, Cowen and colleagues (Cowen and Zax 1969; Cowen *et al.* 1975a) encountered similar problems: their solution was to modify the approach and remove the teacher-aides from the classroom. They have reported neither the children nor adults were certain who was really in charge of the class. Further, some teachers felt that the teacher-aides often got to play the role of all-caring, all-giving, and affectionate mother while the teacher was forced to be the disciplinarian (Cowen and Zax 1969; Cowen *et al.* 1975a). Such potential problems were discussed with the Headteachers, teachers, and teacher-aides before the programme started. The project team also stressed the importance of the teacher-aides' responses being consistent with those of the teachers in any particular situation.

COMMUNICATION PROBLEMS

In the Rochester work there were suggestions that inadequate communication between the project team, teachers, and teacher-aides led to both misunderstanding and frustration. In our study, the project team held regular fortnightly discussions with each teacher/teacher-aide pair. These lasted from thirty to forty minutes, and helped to keep such problems to a minimum. In keeping with our own impressions, the teachers and teacher-aides would have preferred more frequent meetings.

TEACHER VOLUNTEERS VERSUS TEACHER RECRUITS

It is worth re-emphasizing that the teachers involved were not volunteers. After an initial discussion about the programme, though, only one teacher felt that she could not teach happily with another adult in the classroom; for this reason her class was not assigned a teacher-aide.

DIFFERENCES IN EXPERIENCE, ATTITUDE, AND STYLE OF TEACHERS

Throughout, we worked with fifteen teachers who represented a cross-section of ages, teaching styles, and teaching experience found throughout the schools. For instance, in one class a teacher was a first-year probationer, while in another the schools' Deputy Head-teacher was involved. Motivation, enthusiasm about the approach, and sensitivity to the children's difficulties also varied between these teachers. After the initial seminars and subsequent meetings some variations were still apparent. One notable variation was the extent to which they used our guidelines of management – particularly in relation to contingent praise and ignoring inappropriate behaviour (Becker *et al.* 1967).

CONTINUITY OF CONTACT BETWEEN CHILD AND TEACHER-AIDE

As the project spanned five school terms there was the possibility that the children would be dispersed when changing class and would lose continuity of contact with the teacher-aide. This was prevented by negotiating with the school for the treated children to remain together, and the teacher-aide with them. Thus, during the duration of the study each group of children had at least two teachers, but only one teacher-aide.

A problem associated with this negotiation was the difficulty for the second teacher to establish a rapport with her new class while the well-known figure of the teacher-aide was present. We decided, after discussion, that the best solution was to exclude the teacher-aide from the classroom, at the teacher's discretion, during the first two weeks of the new term in order to allow the new teacher to get to know her class.

RELATIONSHIP BETWEEN TEACHER AND TEACHER-AIDE

We believed that the development of a partnership between the teacher and teacher-aide had to evolve naturally. This generally occurred, with the pair creating their own distinct pattern of co-operation and work. On the few occasions that problems arose these were, for the most part, sorted out by the project team who ensured that they were always available for consultation. In the main, we avoided the demarcation disputes that beset the Rochester research by ensuring that the defined roles and functions of the teacher-aides, and any subsequent modifications of these, were acceptable to the teachers.

SPACE AND TIMETABLING PROBLEMS

As we were working in schools in deprived areas space was inevitably at a premium. This difficulty required the co-operation of all the teaching staff in the schools and teacher-aides in using any available space, such as corridors and medical rooms, for individual work with children. In practice, the completion of the scheme depended on the goodwill of the other teaching staff, whose co-operation had not originally been sought or envisaged. They were asked through the Headteacher if they would assist by 'standing in' for the nurture work teachers during discussion time and were, invariably, helpful in covering for the project teachers during the fortnightly discussions.

OTHER CHILDREN'S RESPONSES

The confines of the research design made it necessary, as far as was practicable, for the teacher-aide to concentrate on the target children in particular. Such restriction at first created considerable anxiety among certain teachers (which did not entirely disappear) that the treated children would be adversely 'labelled'. This is always likely to be a problem when additional help is provided only for some children. Nevertheless, a survey, at the end of the research, both of teachers and teacher-aides revealed that three-quarters of them considered that some of the other children in the classes appeared to feel 'left out' of an interesting experience. On the other hand, we know of no incident where overt resentment by untreated children gave rise to disruptive behaviour. Further, it was our impression that these children were spending more time with their teachers as a result of the teacher-aide's presence.

How to improve the programme

We believe that this sort of programme would be improved if the teachers were volunteers, if they were given longer training programmes (see *Table 6(1a–c)*) both at the beginning of, and during, the project (which implies the use of paid supernumeraries to 'stand in' for the teacher while he or she attends discussion), and if motivation could be maintained at a steady level by the award of some form of recognition by the education authorities. More specific training would allow systematic identification of pupils with difficulties. We would like to stress that none of these suggestions implies a radical organizational or administrative change, nor would the financial costs be excessive.

Above all, we believe that in colleges of education greater attention should be paid to the identification and handling of psychological problems of children in the classroom. *Table 6(1a–c)* provides support for this suggestion and it is discussed later in this chapter.

Future possibilities

Many people are still of the opinion that schools should not be involved in developing mental health projects – that mental health should be the domain of existing traditional agencies. However, we believe that a preventive approach in schools constitutes a unique opportunity to reach large numbers of children in difficulty. In addition, our experience with this teacher-aide project has convinced us that there are many people in the community (both lay and professional) who, in conjunction with school staff, can make an important contribution to the prevention of maladjustment. Such beliefs must be confirmed by careful evaluation.

An important question is whether or not our approach could be adopted and adapted for use by schools elsewhere. We consider that the only expense that need be incurred is the salary of the teacher-aides, as it is our impression that the appropriate professional expertise is already available in the health, social, and educational services of the different areas of the UK. The overlapping and unique contributions of the professionals in these services could be harnessed to organize and direct similar school-based schemes. Guidelines are now widely available from work in the USA (Cowen *et al.* 1975b), south-east England (Boxall 1973), and now north-east England.

Teacher and teacher-aide perceptions of the programme

TEACHER AND TEACHER-AIDE CHARACTERISTICS

The initial group of teachers taught in classes that had been randomly allocated to the teacher-aide regime; the second group took over these classes and their respective teacher-aides at the end of the first school year (Kolvin *et al.* 1976). From the information available to us we concluded they constituted a cross-section of teachers in junior schools. All were teacher-trained and specialized in arts, crafts, and science subjects; nearly half had taught in three or more schools and the same proportion had more than eleven years' teaching experience.

The teacher-aides were all married women with children of their own. Their age range was from thirty-six to fifty-five years and, as already described, they were a highly selected group (Hulbert, Wolstenholme, and Kolvin 1977).

METHODS OF ASSESSMENT

We were interested in teacher and teacher-aide responses to the four main components of the scheme, which comprised: (a) introductory seminars and review meetings; (b) consultation and discussion with the project team; (c) maternal involvement; and (d) working together in the classroom. Favourable attitudes towards the scheme suggested some measure of success for one or more of these components.

At the end of the project, a total of twenty-four teachers and teacher-aides who had been involved received a questionnaire from the Research Director. (For the purpose of this particular analysis we included the additional teacher/teacher-aide pair working in the 'pilot' school. This resulted, then, in the inclusion of sixteen teachers and eight teacher-aides in this exercise.) However, only twenty questionnaires were returned. The four non-responders were all teachers, three of whom had a good reason for not replying. This was insufficient exposure to the programme – for example, one teacher had moved to another school after being involved in the programme for only three months. However, even if the fourth teacher had responded, and done so negatively, this would not have greatly affected the overall results.

The replies of the teachers and teacher-aides are presented in *Table 6(1a–c)*. Their responses were compared – two of the three categories in each question were combined and the data were analysed using Fisher's exact probability test (a test specifically designed to assign significance in the case of studies of small sample size). It will be appreciated that, with such small numbers, differences would have to be considerable before proving to be statistically significant (see following section on results).

In addition, the teacher-aides were asked to complete a second questionnaire, relating to their work in the classroom and school as a whole.

RESULTS

There were no statistically significant differences between the responses of the eight teacher-aides and twelve teachers who completed the questionnaire: consequently, for analysis and discussion purposes, the teacher-aides and teachers were regarded as a single group of respondents.

QUESTIONNAIRE FOR TEACHERS AND TEACHER-AIDES

Table 6(1a) indicates favourable attitudes towards the scheme, with reports from the majority of the school personnel that they had derived moderate or marked benefit from the programme. It was not possible to determine which particular feature of the scheme gave rise to the favourable responses, but it seemed likely that the items in

Table 6(1) *The responses of teachers and teacher-aides to the nurture work scheme (a) In relation to consultation* (n = 20)

item		*nil*	*slightly*	*moderately + markedly*
		%	%	%
1.	has enhanced my understanding of the children identified	0	15	85
2.	has increased my understanding of the children's families	15	30	55
3.	has improved my ability to handle the children's behaviour	0	35	65
4.	has led to an increase in my understanding of my own reactions to the children	10	30	60
5.	has enhanced my knowledge about the psychological techniques of handling children	15	40	45
6.	has enhanced my knowledge about emotional development in general	15	45	40
7.	*has provided me with useful information from psychological tests	16	37	47
8.	it helped me to have someone to talk to about the children's problems	0	5	95
9.	it helped me to think out the alternative ways of coping with disturbed behaviour	0	10	90

Note: percentages are rounded off to nearest whole number; * only 19 responses were available.

Table 6(1a) related primarily to the regular consultation meetings and to the seminars. Responses to items (1), (8), and (9) demonstrated substantial appreciation of the help provided in understanding or managing difficult behaviour in children, with at least four out of five endorsing these components of the scheme. Categories detailing increased understanding of the children's families (2), of their own reactions (4), and an improved ability to handle the children's behaviour (3) were also favourably viewed by the majority of staff. The scheme appeared least successful in increasing knowledge about

Table 6(1) *The responses of teachers and teacher-aides to the nurture work scheme (b) In relation to consultation and wider aspects of child management*

item		*not really*	*possibly*	*definitely*
		%	%	%
10.	I would have liked more advice	25	65	10
11.	there were sufficient opportunities to discuss everything I wanted to discuss	25	35	40
12.	I would have liked to be told more about how to handle children	50	30	20
13.	I could usually see what the project team discussions were getting at	0	15	85
14.	It helped to foster links with the families of disturbed children	45	30	25
15.	It led to a sharing of responsibility for individual children	10	45	45
16.	I was told enough of what was found in interviews with parents	55	30	15
17.	I would have preferred it if the *very disturbed* children had been removed to special classes or schools than to help them to be maintained in our school with the help of this scheme	75	20	5
18.	I think the project team should have spent more time visiting the homes	40	45	15
19.	I would have preferred it if the project team had undertaken direct treatment of the children	65	25	10
20.	the project team should encourage unco-operative parents to come into (contact with) the school	0	60	40
21.	I would have preferred to contact the parents myself	60	30	10
22.	the project team should confine themselves to social problem families	79	21	0
23.	the project team should concern themselves with staff tensions that might arise in school	70	25	5
24.	the project team should be more informative about the psychological information they elicit about families	15	40	45

psychological technique of child management (5), emotional development in general (6), and in providing information from psychological tests (7).

In *Table 6(1b)* the pattern of responses was slightly different. This was in some ways related to the nature of the statements in that items (10) to (16) inclusive, and item (24), consisted of comments about the actual scheme as directly experienced by the school staff, while the remaining items were concerned with views about alternative ways in which the scheme could be run, or with potential tasks for the project team.

Referring to the items directly related to the scheme, the responses were less clear-cut with, in many cases, a fair percentage of respondents opting for the midpoint 'possibly' category. Three-quarters of the respondents would have liked more advice (10), but the desired nature of this advice was uncertain as only half wanted to be told more about handling children (12). Three-quarters of the group felt that there were sufficient opportunities for discussion (11), and, according to the participants, the implications of the discussions were invariably easy to grasp (13).

The teachers and teacher-aides did not perceive the scheme as making a major contribution to increasing links with families (14), sharing information about the families (16), nor to sharing responsibility for individual children (15). Hence, in their view, the main deficiency of the scheme was the lack of feedback of information.

On the other hand, they clearly thought that unco-operative parents should be encouraged to have links with the school (20), and that more time and effort on the part of the project team should have been devoted to the families (18), but not to direct treatment of the children (19), nor to involvement in teaching staff tensions (23). In addition, they were opposed to the scheme being restricted to social problem families (22). In relation to alternative approaches to pupil management, three-quarters of the staff did not want very disturbed children to be removed to special classes or schools (17) but, on the other hand, few were enthusiastic about taking on the task of personally contacting parents (21).

The items listed in *Table 6(1c)* were specifically related to the fourth component of the scheme, which concerned the practice of having a teacher and teacher-aide working together in the same classroom. This was endorsed as a useful technique by all the respondents (26), with little or no evidence of major problems having arisen from the presence of an extra adult in the classroom (28, 29). Furthermore, the teachers and teacher-aides appeared to appreciate the importance of good relationships between the adults in the classroom (36).

Table 6(1) *The responses of teachers and teacher-aides to the nurture work scheme (c) In relation to the roles, functions, and interactions of teachers and teacher-aides in the classroom*

item		*not really*	*possibly*	*definitely*
		%	%	%
25.	it is easy for other children to feel left out of things if the teacher-aide concentrates on the target children	21	37	42
26.	having a teacher-aide working in the classroom is a very useful way of helping children	0	10	90
27.	the teacher-aide should have her own room in the school and children referred to her by teachers	75	20	5
	having two people working in the classroom leads to:			
28.	confusion for the children	85	10	5
29.	misunderstanding between the two adults	70	30	0
30.	teachers are able to run such a scheme without outside assistance	60	40	0
31.	the teacher-aide's role would be facilitated by some training in basic educational techniques	10	70	20
32.	teacher-aides should be full-time and not only part-time	40	40	20
33.	teacher-aides should also be involved in contacting parents	30	45	25
34.	there should be more meetings for both teachers and teacher-aides together with their counterparts in the other schools involved	20	55	25
35.	the individual teacher should meet with the teacher-aide before a programme starts	5	15	80
36.	the amount of success a teacher and teacher-aide have with children depends on how well the teacher and teacher-aide get on together	0	30	70

A number of items were concerned with methods of improving such teacher-aide schemes. Two obvious suggestions emerged: that there could be increased training for the teacher-aides in educational techniques (31), that the teacher and teacher-aide should be introduced before a programme is started (35). With regard to the potential duties of the teacher-aide there was little real support for the idea of their being involved in contacting parents (33), or being employed on a full-time basis (32).

No respondents felt that teachers could run such a scheme unassisted (30). Finally, there was concern that children not directly involved in the programme could feel left out (25).

THE TEACHER-AIDE QUESTIONNAIRE

The first item on the second questionnaire, completed only by the teacher-aides, related to the reaction of non-target children to the teacher-aides' presence, with the latter being unanimous in reporting that they met with a high level of acceptance from other children in the class.

Teacher-aide/school relations were also studied, with three instances of an 'excellent' relationship being recorded, three of a 'good' relationship, and only a single instance of a 'fair' relationship.

Overall, the seven teacher-aides working on the project assessed their relationships with fifteen teachers (six of the teacher-aides worked with two teachers and the seventh worked with three, as one of the teachers left the school and was replaced by another). Of the fifteen relationships, seven were rated as 'excellent', four as 'good', three as 'fair', and one as 'poor'. Similarly, teacher-aides were asked to give their impressions of the degree to which their skills were used by their teacher colleagues. Of the fifteen teacher/teacher-aide pairs, the teacher-aides considered that on seven occasions their skills had been employed 'considerably', on four 'fair' use was made of their skills, on three 'some' use, and in one instance 'minimal' use was recorded.

The seven teacher-aides were asked to estimate the nature of the relationship they achieved with individual treated children. This was measured on a five-point scale. For 87 per cent of pupils, the teacher-aides felt that an 'excellent' or 'good' relationship had been established, while for 13 per cent they felt the relationship was 'fair' or 'poor'. No one considered that only a 'minimum' relationship had been achieved.

Finally, in relation to social improvement (peer and adult relationships) the teacher-aides considered that 87 per cent of the children were 'slightly' or 'much' improved and 13 per cent were considered not to have changed, or to have deteriorated.

Although the reports were highly subjective they nevertheless provided a crude index of evaluation by those adults involved in the scheme.

DISCUSSION

The above data suggested that, for teachers and teacher-aides alike, while there had been an improvement in the self-reported ability to manage and understand children, there was far less improvement in terms of understanding of the children's families and increasing links with them (14). It may have been that this latter response was a reaction to the meetings that were arranged for mothers in the schools, which were relatively poorly attended. This response seemed a fair one, and reflected the considerable difficulties encountered in attempting to arrange co-operative ventures between teachers and parents; in this particular instance, it also related to the problem of encouraging mothers from disadvantaged backgrounds to attend group meetings on the school premises.

The very positive response to the notion that discussions with the mental health specialists were supportive to teachers and teacher-aides (8) suggested that junior school teachers, in particular, usually do not have sufficient opportunities within the school for discussing the problems involved in coping with difficult children. In a parallel study of teachers' responses to a social work scheme in schools the authors found that teachers in junior schools were much more likely than their counterparts in senior schools to report that discussions with mental health specialists were supportive (Wolstenholme and Kolvin 1980).

It also seems that the nurturing approach was seen by teachers and teacher-aides to be preferable to the removal of disturbed children from the class, and that it should be widely available for children with problems. A number of the respondents thought that there were insufficient opportunities for discussions between the teacher/teacher-aide pairs and mental health workers and this is important because, in a similar American study, it was found that teacher satisfaction was significantly related to the amount of contact allowed with other professional staff (Dorr and Cowen 1972).

The positive reactions of the respondents to working in the same classroom stands in contrast to the American experience, where it proved necessary to remove the teacher-aides from the classroom as a result of teacher pressure (Zax *et al.* 1966). However, we must emphasize that from the start our teacher-aides spent time both inside and outside the classroom. The general success of the teacher/teacher-aide pairs is likely to be determined by three factors: the careful collaborative selection of the teacher-aides, regular contact with the project team, and the accountability of the teacher-aides to the teachers. Only 40 per cent of the teachers felt that the teacher-aides should be employed on a full-time basis: it would therefore seem a more sensible use of resources to allow aides to work between several classes.

Perhaps the anxiety expressed about non-target children feeling left out reflected the positive view of the scheme held by the participants. We have evidence that the teacher-aides devoted at least some time to other children, and they unanimously agreed that these children responded very well.

Figure 6(1) Overall severity: juniors: per cent outcome (good and poor categories only)

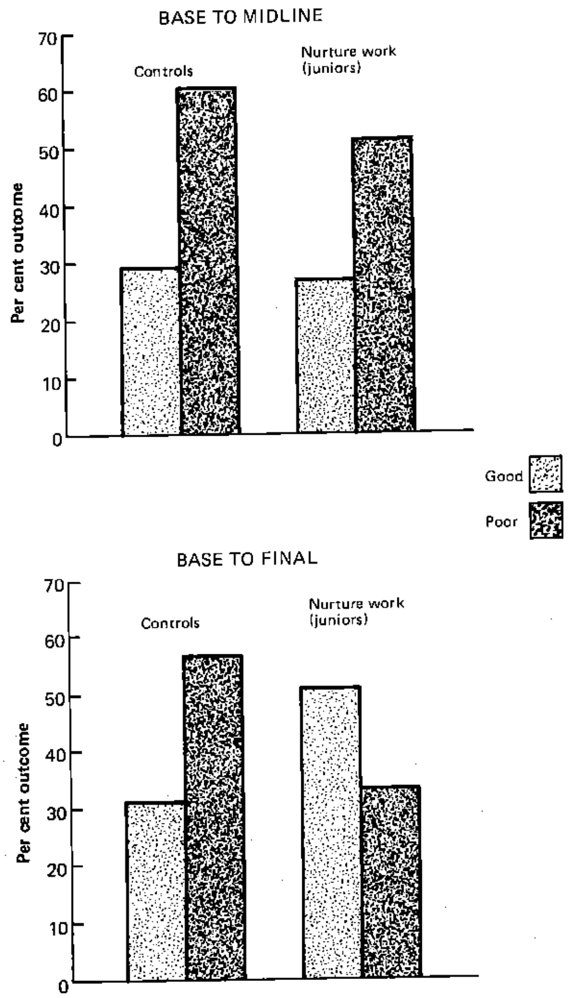


Figure 6(2) Neurotic behaviour: Juniors: per cent outcome (good and poor categories only)

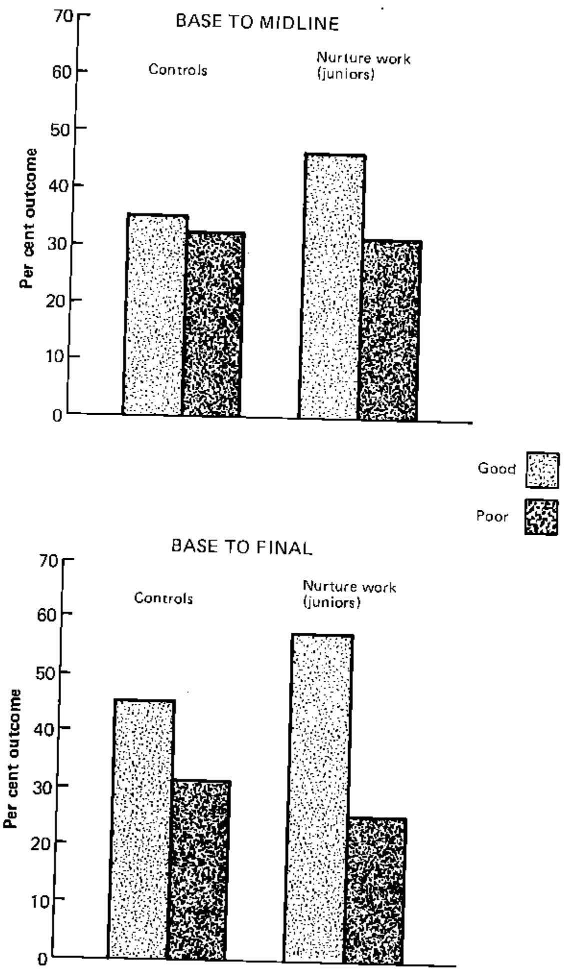
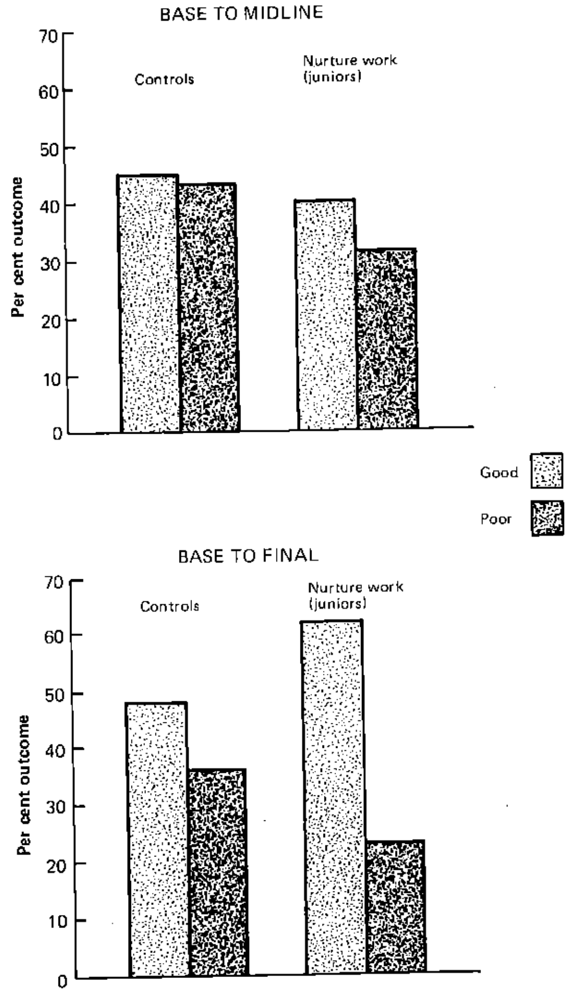


Figure 6(3) Antisocial behaviour: juniors: per cent outcome (good and poor categories only)



Overall, the very favourable responses were in keeping with those of other reports (Zax *et al.* 1966) and are one commendation for such programmes in schools. The programme seems to have influenced the teacher-aides and teachers: whether or not it influenced the children will be discussed in the next section.

Independent evaluation of the teacher-aide programme

The independent evaluation assessed both outcome and improvement; these terms have been defined in Chapter 3 and Appendix 2.

For the sake of simplicity, we have presented data on outcome in the categories of 'good' and 'poor' (but not 'moderate') for global, neurotic, and antisocial behaviour (*Figs 6 (1)–6(3)*, pp. 165–67). When comparing behavioural outcome, it will be seen that there were no differences between the at-risk controls and the nurture work children at the midline. By the final follow-up, however, there was a significant difference in favour of the latter work on overall severity (with half of them showing a good outcome but only a third showing a poor outcome), compared with the at-risk controls (in whom a third showed a good outcome and more than half a poor outcome). The same pattern occurred for both neurotic and antisocial behaviour, but the differences at the final follow-up did not achieve statistical significance.

More complex analyses were undertaken to study improvement, in which allowance was made for the initial differences between regimes in terms of child behaviour and a variety of other personal and social factors. In this section we report only on those aspects in which significant differences were found between the at-risk controls and the nurture work children.

We studied five types of data: (a) child behaviour and temperament based on parental interview; (b) a more general type of child behaviour based on teacher accounts (Rutter B2 scale); (c) classroom-related behaviour based on teacher accounts (Devereux scale); (d) social relationships based on peer reports; and (e) cognitive measures. There were no differences between the nurture work children and at-risk controls on measures (d) and (e). The significant differences that we did find are shown in *Table 6(2)*, and it is clear that the main differences occurred in relation to classroom-related behaviour. It should be emphasized that the ratings at the final follow-up were made long after the treatment was over and almost always by a different teacher to the one who participated in the project. Some of the improvements constituted short-term gains, others were maintained to the final follow-up and yet others emerged only at the final

Table 6(2) *Significant differences between the nurture work group and the at-risk controls, with regard to improvement*

assessment point	*data source*		
	parent interview	*teacher general (Rutter B2)*	*teacher classroom-related behaviour (Devereux)*
base to midline	antisocial behaviour	nil	impatience inattentive/withdrawn blaming external circumstances increase in needing closeness
base to final	antisocial behaviour	neurotic behaviour	impatience blaming external circumstances quits easily comprehension aggregate behaviour score

follow-up. Consistent improvement occurred both in cases of reduction in antisocial behaviour, reported by the parents, and in certain items of classroom-related behaviour, reported by teachers. Finally, it was clear that there was only little overlap between the types of improvement that were recorded by means of the three different instruments (parental interview, the Rutter B2 scale, and the Devereux scale).

CONCLUSION

It is evident that the nurture work approach had an effect both on outcome and on improvement. The outcome scores showed that it produced good results with regard to global (overall) behaviour at the final follow-up; neurotic and antisocial behaviour showed encouraging trends. Improvement at the end of the treatment programme was apparent mainly for classroom-related behaviour, this being understandable as most of our efforts were directed at classroom-related behaviour. However, some of the gains were short-term, others more long-term, and yet more were 'latent', in the sense that they emerged only in the course of time. The detection of this latter point acts as an important warning, because had we relied only on the Rutter B2 child behaviour scale, we could easily have given up monitoring the cases at the midline point (by which time treatment had ended) because of lack of evidence of effectiveness of the programme.

It is also important to note that neither at the midpoint, which was at the end of treatment, nor at the final follow-up, which was eighteen months after the end of treatment, were there widespread differences of improvement between the at-risk controls and the nurture work children on the cognitive measures, in particular on reading. The only evidence that the nurture work children excelled the at-risk controls on cognitive measures was on verbal comprehension on the English picture vocabulary test at the midline follow-up, but this then washed out (see Appendix 3). Drawing from the literature on compensatory education and stimulation we would have expected more widespread immediate cognitive improvement on the part of the treated children, consisting of gains both in intelligence and in academic attainments. However, we can only speculate that this did not occur because our main endeavours were directed at behaviour rather than attainments and, therefore, the response was specific. For similar reasons, we would have expected a reported improvement from parents or peers on socialization, but, again, this did not occur to a significant extent. Other workers have reported immediate effects that did not last but, more recently, in the Head Start programme, there have been suggestions of better long-term effects. The latter seems to tie in with some of our findings.

Our most impressive results were on classroom-related behaviour so that we appeared to get a rather specific classroom effect such as improved comprehension at final follow-up, as reported by the teachers (which is not related to improved attainments or IQ on the basis of formal tests). In addition, we saw improvement in many of the other characteristics that are important to classroom functioning, such as decreased impatience, increased persistence in tasks, increased attentiveness, and, finally, improvement on the aggregate behaviour score on the Devereux scale at the final follow-up. Such progress was complemented by the general impressions of teachers, and teacher-aides about the usefulness and success of the venture, which are broadly in accord with the findings of the projects of Boxall and Cowen. Their projects and the Newcastle upon Tyne one, had different emphases and yet all three, using either descriptions and impressions and/or systematic assessments, have produced findings that endorse the nurture work approach.

The Cowen group (Cowen, Gesten, and Wilson 1979a; Cowen *et al.* 1979b) have recently published outcome results that, while addressing a different question, afford a comparison with our own. Cowen was looking at the effect on outcome of specific training of teacher-aides. He showed greater positive change on a wide variety of cognitive and school-based behaviour measures in a group who were exposed to trained teacher-aides in comparison to one with untrained teacher-aides. These results were encouraging and, of course, are generally in accord with our own, except that they reported more widespread cognitive results.

A number of factors made comparison between the Cowen research and our own difficult. For example, Cowen did not appear to have used systematic screening techniques or random allocation to treatment groups. His gains tended to disappear when he analyzed the treated children alone rather than the wider group of children who came into contact with the teacher-aides. Cowen did not have an untreated control group, so that there was no guarantee that the trained therapists were of more benefit to the children than no treatment at all.

In our study there was a significant lessening in antisocial behaviour, as reported by parents, both at the end of treatment (the midline point) and at the final follow-up, eighteen months later. General neurotic behaviour as reported by the teachers (Rutter B2 scale) was significantly improved only at the final follow-up. We do not quite understand this contrast between home and general school behaviour and can only speculate that the relief of pressure at school, as reflected by a lessening of classroom-related type of disturbance, gave rise to an immediate lessening of antisocial disturbance at home. It is possible that by the final follow-up the reduction of disturbance in the classroom had extended its effect to general neurotic behaviour in the school, as measured by the Rutter B2 scale. In comparison, in the Cowen work only immediate post-treatment gains appeared to have been made, which means that we can only speculate about the long-term impact of that project. Furthermore no parental data was reported.