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The Development of Community Service for Young
Children in the New Forest: Joint work by a Child
Guidance Clinic with Health Visitors

A Thesis submitted for the Degree of Doctor Of Medicine,
University of Glasgow, December, 2001

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**ABSTRACT OF WORK SUBMITTED AS A THESIS FOR A MD TO
GLASGOW UNIVERSITY DECEMBER 2001**

**A COMMUNITY SERVICE FOR YOUNG CHILDREN WITH
BEHAVIOUR PROBLEMS AND THEIR FAMILIES IN THE NEW
FOREST:
JOINT WORK BY A CHILD GUIDANCE CLINIC WITH HEALTH
VISITORS.**

MARGARET J.J.THOMPSON

Background

Behaviour problems in children are of increasing concern to parents, schools and society, and problems with aggression, hyperactivity and extremes of temper do not go away. Children who present with this constellation at a young age are extremely likely to retain similar problems in middle childhood and become anti-social and aggressive adolescents with a high financial and grievance cost to themselves, their families and Society.

Therefore as these problems develop early and persist, it would seem sensible to build on services that already work with young children and their families, so that by intervening early, problems could be assessed and treated. This would, hopefully prevent the persistence of these problems into early and late childhood.

Recent documents from the Health Advisory Service and from the British Paediatric Association have supported these ideas, highlighting the need to further develop the skills of primary care teams in mental health care for children. Better partnership between the primary care sector, education and social services, and with secondary care colleagues like paediatricians and child psychiatrists, was encouraged. Training in the assessment and treatment of children with behavioural problems was suggested for primary health workers. This would enhance their skills with young children and their families. This should result in children and families being assessed and treated in a more effective service, and in their own localities, if possible. The HAS document laid out the concept of the four Tiers, with primary care at Tier One.

Child Guidance Clinics have been traditionally seen as secondary or tertiary referral resources by primary care services (mainly general practitioners and health visitors). Children and families are referred with behaviour problems in an identified child, which are serious enough, to warrant an assessment. Child guidance staff are employed from health, social services and educational backgrounds. However staffing levels are generally low compared with catchments areas. Most services have had to be creative as to what their priorities should be and how they could spread skills to aid other professionals deal with the less complex problems in the community. The question is “which problems and what works best”?

In order to set up a service for young children it was important to do this in the most creative way possible as many colleagues saw the core business for child guidance clinics to be very seriously disturbed children, especially those in adolescence. Hopefully, however, intervening early would allow the possibility of preventing some children progressing to major problems in adolescence. Although the HAS document had not been released at that time the work on this thesis began, many colleagues round the country were beginning to work more closely with primary health teams building on their skills to develop work for young children and their families.

The work was developed from a child guidance clinic in the New Forest over a period of 15 years from 1984-99. This service was developed with the aim of devolving and disseminating knowledge to allow interventions to take place at the lowest possible level in the system. A strategy to realise these aims was developed and data was collected to monitor progress.

This thesis will describe the strategic approach adopted, in order to develop the service:

1. *A review of the background literature relevant to the work proposed.*
2. *A needs' assessment of behaviour problems young preschool children in our district in order to establish what kind of service should be offered.*

This was a community survey of a total birth cohort of children at age 3 years at the time of their developmental screen. Questionnaires were sent

out to families with their invitation to their child's developmental check. This established that the prevalence of behaviour problems found in three year old children in this urban/rural area (14.2%) was similar to the findings of the urban community study of three year old children carried out by Richman, Stevenson & Graham, (1982).

3. *The development of ongoing training and support for health visitors in order that they would be able to assess families with young children, screen for problems and institute treatment methods..*
4. *The development of behaviour programmes that would work within a community setting.* An evaluation of the efficacy of treatment of sleep problems by a specialised health visitor in the community was undertaken with a Grant from the South and South West Regional Health Authority. This Trial was a randomised- controlled trial of the delivery of a manualised sleep programme for non-sleeping 2-4 year olds (Douglas & Richman, 1982) delivered by a specialised health visitor over a eight week period at the family's home. The results were clinically significant although just without statistical significance ($p=.05$ CI $-.005$ to 5.8).
5. *The development of a clinic for young children within the Child Guidance Service in order to encourage appropriate referrals and encourage joint working with the health visitors.*
6. *Outcome measures were developed to evaluate the clinic work including a tool to assess families' satisfaction.* Outcome was measured by the family and clinic independently using a 6- point, unanchored, Likert Scale filled in at assessment and on discharge. Results found that both families and the clinic staff indicated improvement and there was agreement by families and clinicians as to whom had improved.
7. *An evaluation of work at Tier I, II and III. Can liaison nurses work within the community, from a base within the child guidance service?* A comparison of results from a clinic based service and a community based service indicated that the results for staff working in the community by themselves, were as good as two or more staff working in the clinic but at half the cost. Better liaison with primary care was achieved while working in localities.

**A COMMUNITY SERVICE FOR YOUNG CHILDREN IN THE NEW
FOREST:
JOINT WORK BY A CHILD GUIDANCE CLINIC WITH HEALTH
VISITORS.**

Margaret J.J.Thompson

**Declaration of work done on my own and in collaboration with other
colleagues.**

This work developed over a period of 15 years with the New Forest Child Guidance Service and the Health Visitors. All of the work has already been published or presented elsewhere. All of the work has been alongside other colleagues as the work has taken place within a service or research context and this will be acknowledged in the text. Copies of published papers are enclosed. The work undertaken and described in this thesis has led to other published work or to applications for grants and other research projects, a full list of which is in Appendix 2

Chapter three describes the setting up of the initial service for families with young children with behaviour problems. (Thompson & Bellenis, 1992). This led to joint working practices which we evaluated (Chapter four) (Bellenis & Thompson,1992). The health visitors also wished further training and this work will be described (Chapter 3). This work was planned and organised by myself. Dr. Clio Bellenis (Senior Registrar) carried out the evaluation of the work with the families, under my direction.

A research project was set up to carry out a needs' assessment of the population (The New Forest Development Project (NFDP)) (Chapter 5) (Thompson et al, 1996). This epidemiological project determined the prevalence of behaviour problems in a birth cohort of children reaching their third birthday in 1990-91. In 1988, I was in discussion with Jim Stevenson, Behavioural Sciences Department, University of Surrey, who had been a co-investigator with Richman in the Waltham Forrest study (a community study of 3 year old children and their families (Richman, Stevenson &

Graham,1982) see chapter 2). He was interested in carrying out a study in a rural area to establish the rate of problems. I included also Peter Nott, Department of Psychiatry, University of Southampton who was interested in maternal depression and in studying this issue, as he had found high rates of depression right through the first post natal year in his community study of Southampton mothers (Nott, 1987).

I planned the project with Jim Stevenson and Peter Nott. My particular role was the operational planning of the project and the day to day running of it, the negotiations with local health professionals and the arrangements for collecting information and for undertaking the coding. The coding was done by a variety of people including medical students, and the authors on the published paper. The data entry was organised from Surrey and the analysis of the data was done partly by myself (frequencies), but the majority and the more complicated statistics was done by Jim Stevenson in discussion with Edmund Sonuga- Barke, Department of Psychology, University of Southampton, and myself. Zam Bhatti and Andy Price, Child Psychiatry Department, Southampton Health District helped in the coding of data. Matthew Hudswell, Planning Office, Southampton Health District mapped the Jarman data.

This project has been published as three papers (enclosed) and has provided a cohort for longitudinal studies. Chapter 5 will only refer to the first part of the analysis of the data, which provided a needs' assessment of the prevalence of behaviour problems in three year olds in the New Forest, and a discussion of the important linking variables. This indicated that the prevalence of behaviour problems in three year old children was as high in this urban-rural area, as previous studies had found in an urban area (Richman, Stevenson & Graham, 1982). I have included only the first paper as part of the thesis as it pertains to my input on the planning and operation of the project and the statistics on the needs' assessment.

The above study would have not been possible without the co-operation and time of the New Forest Health Visitors and their managers. Other papers have

been published (Sonuga-Barke, Stevenson and Thompson, 1996 and Stevenson, Thompson and Sonuga-Barke, 1996). This initial project led to other studies on focussed groups of hyperactive children (Sonuga-Barke et al, 1994;1995; Sonuga-Barke and Goldfoot, 1995); follow up of children at 8 years (Sonuga-Barke, Thompson, Stevenson & Vinney, 1996), and at 10 years (The Parenting Strategy Project (Grant from the Department of Health (Stevenson, Sonuga-Barke &Thompson, 1996-99) (conclusions Chapter 8).

The NFDP also confirmed that health visitors were under-reporting behaviour problems in the 3 year old children, possibly because they had not found any on screening or because they underestimated their potential seriousness (Chapter 5).

This finding adds to the debate as to whether routine screening for behaviour problems is appropriate or not (Hall, 1992)

Research reported in the literature at that time suggested that focussed strategy work was the way to tackle problems in young children. A research project was set up to evaluate the management of sleep problems, as those had been identified by the local health visitors as being the most common problems, which concerned parents. The sleep project was planned by myself and I did the analysis. Lorna Polke, a research health visitor interviewed the families, carried out the therapy and collected the data. (This work was supported by a South and South West Regional Research Grant (Thompson, 1990-91)). (Thompson & Polke, 1992). (Chapter 6). Dr. now (Professor) Coggon was my supervisor on this project.

The initial service for the under fives described and evaluated from 1984 to 1987, indicated that a clinic should be set up for young children with a dedicated staff, circumscribed practice and built in outcome measures. The pilot study was run by Dr Sue Blandy, a clinical assistant, with my support. The clinical data was collected by the staff in the clinic and entered on a database by the clinic administrator. Dr Sarah Coggon, a clinical assistant helped to develop the coding for the database. The various steps that occurred in this development are summarised in Chapter 7, along with the further

developments, which have led to our nurses working more in the community alongside the primary care teams. Xavier Coll, a senior registrar and Susanne Wilkinson, a research psychologist organised a telephone audit of satisfaction of the families by the clinical team under my supervision. This added to the evaluation of the service from 1994-96. Susanne Wilkinson and myself carried out the data input. The statistics were analysed by myself, Xavier Coll and Aurelio Tobias. (Thompson, Coll, Wilkinson, Uitenbroek & Tobias, 2001, submitted).

The findings and conclusions are laid out in Chapter 8, together with the advantages and disadvantages of working more in the community. Suggestions of how this work could progress are described.

The work has all been done in the New Forest, but some of the ideas for the initial seminars for health visitors and the concept of working in the community began in Glasgow while I was working with Professor Fred Stone, Professor of Child and Adolescent Psychiatry, University of Glasgow, in 1978-81 in Glasgow.

The work was started at the time I became a Consultant in 1984. The first two evaluation studies were undertaken in 1987 and published in 1991; the work with the pilot clinic was carried out in 1987-1989; The New Forest Development Project in 1990-91 with papers written thereafter; the sleep project, 1990-91; the Young Child Clinic 1990-1991 and 1994-96; the data analysis of the work has been finally completed and the MD written over the time period 1994-2001.

As most of the work was undertaken at the time under the heading of audit, our district ethical committee does not expect such projects to be submitted. Ethical approval was sought and granted for the two research projects (the sleep project and the New Forest Development Project).

Signed

Margaret J.J.Thompson December 2001

CHAPTER 1

INTRODUCTION

Behaviour problems in children are an increasing concern to parents, schools and society. Research has indicated, that the problems of aggression, hyperactivity and extremes of temper do not go away. Children who presented with this constellation at a young age were extremely likely to retain similar problems in middle childhood, (Richman, Stevenson & Graham, 1982; Campbell & Ewing 1990) and a proportion of these children became anti-social and aggressive adolescents with a high financial and grievance cost to themselves, their families and Society (Robins,1966:1991).

Therefore as these problems develop early and persist it would seem sensible to build on services that already work with young children and their families, so that by intervening early, problems could be assessed and treated. This would, hopefully prevent the persistence of these problems into early and late childhood.

Recent documents from the Health Advisory Service (HAS) (NHS,1995) and from the British Paediatric Association (1996) highlighted the need to further develop the skills of primary care teams in mental health care for children. Better partnership between the primary care sector, education and social services, and with secondary care colleagues like paediatricians and child psychiatrists, was encouraged. Training in the assessment and treatment of children with behavioural problems was suggested for primary health workers. This would enhance their skills with young children and their families. This should result in children and families being assessed and treated in a more effective service, and in their own localities, if possible.

The HAS document delineated a “Tier System” of delivering children’s mental health services. Four tiers were proposed: Tier one would provide the first line of service and consisted of non-specialist primary care workers such

as school nurses, health visitors, general practitioners, teachers and social workers. Tier two consisted of specialised mental health workers, who, by working relatively independently, from other services, would take referrals and provide support to the primary care level. They would also mediate between the primary care level and Tier 3, which consisted of multi-disciplinary teams who work in child guidance clinics and other specialised units. Finally, Tier four consisted of specialised inpatient units (HAS, NHS, 1995).

Child Guidance Clinics have been traditionally seen as secondary or tertiary referral resources by primary care services (mainly general practitioners and health visitors).

Children and families are referred with behaviour problems in an identified child

which are serious enough, to warrant an assessment. Child guidance staff are from health, social services and educational backgrounds. Staffing usually consists of child and adolescent psychiatrists, clinical child psychologists, child psychotherapists, play therapists, nurses, social workers and, sometimes, educational psychologists. Not all clinics will have all these staff members available, and staffing levels are generally low compared with catchments areas. More recently, the present government decided that child and adolescent mental health should be a priority and money was released. However resources are not limitless and most services have had to be creative as to what their priorities should be and how they could spread skills to aid other professionals deal with the less complex problems in the community. The question is “which problems and what works best”?

Most child guidance clinics have long waiting lists, and take, as a priority, only the more serious problems. Families did not always want to attend and the DNA(non-attendance at the first appointment) rate was high, and varied from 14.9% of a year’s referrals to a Welsh child guidance clinic to 24% in our consecutive clinic sample in the New Forest of 210 children (Thompson & Parry,1991) and 28% in an audit of 7000 consecutive referrals to all Scottish child guidance clinics (Hoare et al, 1996). This was thought to be because of

variety of reasons, the stigma of attending a psychiatric clinic, the distances that had to be travelled and often because the family were not clear of the reason for the referral or did not wish to come in the first place.

Therefore, because behaviour problems in young children were important and were often the antecedent of future, more serious, problems, it seemed sensible to try to establish a service for this group of children. It was important to do this in the most creative way possible as many colleagues saw the core business for child guidance clinics to be very seriously disturbed children, especially those in adolescence. Hopefully, however, intervening early would allow the possibility of preventing some children progressing to major problems in adolescence. The HAS document had not been released at that time the work on this thesis began, although many colleagues round the country were beginning to work more closely with primary health teams e.g. Hewitt & Crawford (1988).

Therefore this thesis will describe how we set up an assessment and treatment service for families with young children with behaviour problems, which developed over a period of 15 years from 1984-99. This service was developed with the aim of devolving and disseminating knowledge to allow interventions to take place at the lowest possible level in the system (when we started “Tiers” were not invented). Ideally patients would be treated and supported by the primary care team (Tier one), with back up and support being provided by our staff in the community (at Tier two). Only on rare occasions should patients be referred into the Child Guidance Clinic (Tier three). This would be for assessment and the development of treatment plans, which could then be implemented at Tier one or Tier two, although the clinic would continue to provide support. A strategy to realise these aims was developed and data was collected to monitor progress.

1. A review of the background literature relevant to the work proposed.

2. *A needs' assessment of behaviour problems young preschool children in our district in order to establish what kind of service should be offered.* This was a community survey of a total birth cohort of children at age 3 years at the time of their developmental screen. Questionnaires were sent out to families with their invitation to their child's developmental check. This established that the prevalence of behaviour problems found in three year old children in this urban/rural area (14.2%) was similar to the findings of the urban community study of three year old children carried out by Richman, Stevenson & Graham, (1982).
3. *The development of ongoing training and support for health visitors in order that they would be able to assess families with young children, screen for problems and institute treatment methods.*
4. *The development of behaviour programmes that would work within a community setting.* An evaluation of the efficacy of treatment of sleep problems by a specialised health visitor in the community was undertaken with a Grant from the South and South West Regional Health Authority. This Trial was a randomised- controlled trial of the delivery of a manualised sleep programme for non-sleeping 2-4 year olds (Douglas & Richman, 1982) delivered by a specialised health visitor over a eight week period at the family's home.
5. *The development of a clinic for young children within the Child Guidance Service in order to encourage appropriate referrals and encourage joint working with the health visitors.*
8. *Outcome measures were developed to evaluate the clinic work including a tool to assess families' satisfaction.* Outcome was measured by the family and clinic independently using a 6- point, unanchored, Likert Scale filled in at assessment and on discharge
9. *An evaluation of work at Tier I, II and III. Can liaison nurses work within the community, from a base within the child guidance service?* In 1990-91 the service for young children was further developed as a clinic based service. In 1994-96 the service developed into a community based service indicated that the results for staff working in the community by themselves, were as good as two or more staff working in the clinic but at

half the cost. Better liaison with primary care was achieved while working in localities.

Background

The Hythe Child Guidance Clinic

The work was developed in the Child Guidance Clinic based at Hythe, in the New Forest along with the New Forest Health Visitors. At the start of the project there were 32 health visitors (27 W.T.E.).

The area covered by the clinic was a mixed urban- rural area of about 200 square miles. This consisted of New Forest East, a rural area of small towns and the urban sprawl of Calshot, Fawley , Waterside and Totton which stretched along Southampton Water.

There were areas of affluence, but also rural and urban poverty, with a significant proportion of families who lived in housing estates with poor facilities and or in bed and breakfast accommodation.

In the north of the area was Fawley Refinery, which was the largest employer. The rest of the industry was light engineering or service industry. Many families travelled to Southampton or Bournemouth to work. Travel to specialised services was a problem and many families did not have access to a car during the day. Local clinics and home visits were necessary to engage families in clinic work. The population was about 150,000 with around 9,340 under fives and 13, 000 under sevens

In 1984, I was appointed as the new consultant to the service.

The clinic team was composed of secretaries, a consultant child psychiatrist, a clinical assistant, social workers (paid for by Hampshire Social Services) a clinical psychologist and a child psychotherapist. (From 1984-1987 there was also an educational psychologist in the clinic). All the staff were part-time, apart from the main secretary.

The clinic had an open referral system, with referrals accepted from any agency, or from families directly. Children and young people were referred up to their 16th birthday.

Children were referred with problems of behaviour including "acting out " behaviour (e.g. aggression, stealing, truancy) and emotional problems e.g. sadness and anxiety. As problems with children may be a manifestation of problems within the family and or school or the environment assessment would include the family, as well as contact with school or playgroup.

The preferred mode of working in 1984 was to offer assessment and treatment of the whole family, if possible, with two members of staff present.

The philosophy of the clinic was to work alongside the other agencies and ask relevant colleagues to clinic appointments with families.

The joint work developed over a period of 15 years with the New Forest Child Guidance Service and the Health Visitors of the district will be described. All of the work has already been published or presented elsewhere. All of the work has been alongside other colleagues as the work has taken place within a service or research context and this will be acknowledged in the text. Copies of published papers are in the appendix. The work undertaken and described in this thesis has led to other published work or to applications for grants and other research projects, a full list of which is in Appendix 2.

Chapter two outlines the background to the literature, which has informed the work.

Chapter three describes the setting up of the initial service for families with young children with behaviour problems. (Thompson & Bellenis, 1992). This led to joint working practices which we evaluated (Chapter four) (Bellenis & Thompson, 1992). The initial work with health visitors indicated that they were not clear which problems needed to be referred, but did indicate that there

seemed a high incidence of problems in the under fives. The health visitors also wished further training and this work will be described (Chapter 3). This work was planned and organised by myself. Dr. Clio Bellenis carried out the evaluation of the work with the families, under my direction.

A research project was set up to carry out a needs assessment of the population (The New Forest Development Project (NFDP)) (Chapter 5) (Thompson et al, 1996). This epidemiological project determined the prevalence of behaviour problems in a birth cohort of children reaching their third birthday in 1990-91. In 1988, I was in discussion with Jim Stevenson, Behavioural Sciences Department, University of Surrey, who had been a co-investigator with Richman in the Waltham Forrest study (a community study of 3 year old children and their families (Richman,Stevenson & Graham,1982) see chapter 2). He was interested in carrying out a study in a rural area to establish the rate of problems and Peter Nott , Department of Psychiatry, University of Southampton who was interested in maternal depression and in studying this issue, as he had found high rates of depression right through the first post natal year in his community study of Southampton mothers (Nott, 1987).

I planned the project with Jim Stevenson and Peter Nott. My particular role was the operational planning of the project and the day to day running of it, the negotiations with local health professionals and the arrangements for collecting information and for undertaking the coding. The coding was done by a variety of people including medical students, and the authors on the published paper. The data entry was organised from Surrey and the analysis of the data was done partly by myself (frequencies), but the majority and the more complicated statistics was done by Jim Stevenson in discussion with Edmund Sonuga- Barke, Department of Psychology, University of Southampton, and myself. Zam Bhatti and Andy Price, Child Psychiatry Department, Southampton Health District helped in the coding of data. Matthew Hudswell, Planning Office, Southampton Health District mapped the Jarman data.

This project has been published as three papers and has provided a cohort for longitudinal studies. Chapter 5 will only refer to the first part of the analysis of the data, which provided a needs assessment of the prevalence of behaviour problems in three year olds in the New Forest, and a discussion of the important linking variables. This indicated that the prevalence of behaviour problems in three year old children was as high in this urban-rural area, as previous studies had found in an urban area (Richman,Stevenson and Graham, 1982).

The above study would have not been possible without the co-operation and time of the New Forest Health Visitors and their managers (Part of the evaluation of this project was supported by a grant from the Wessex Medical Trust (Thompson and Sonuga-Barke, 1994)). Other papers have been published (Sonuga-Barke, Stevenson and Thompson, 1996 and Stevenson, Thompson and Sonuga-Barke, 1996. This initial project led to other studies on focussed groups of hyperactive children (Sonuga-Barke et al, 1994;1995; Sonuga-Barke and Goldfoot, 1995; follow up of children at 8 years (Sonuga-Barke, Thompson, Stevenson and Vinney, 1996), and at 10 years (The Parenting Strategy Project (Grant from the Department of Health (Stevenson, Sonuga-Barke and Thompson, 1996-99)) (conclusions Chapter 8).

The NFDP also confirmed that health visitors were under-reporting behaviour problems in the 3 year old children, possibly because they had not found any on screening or because they underestimated their potential seriousness (Chapter 5).

This finding adds to the debate as to whether routine screening for behaviour problems is appropriate or not (Hall, 1992)

Research reported in the literature at that time suggested that focussed strategy work was the way to tackle problems in young children. A research project was set up to evaluate the management of sleep problems, as those had been identified by the local health visitors as being the most common problems, which concerned parents. The sleep project was planned by myself and I did the analysis. Dr. David Coggon was my support from the Regional Health

Authority on the grant. Lorna Polke, a research health visitor interviewed the families, carried out the therapy and collected the data. (This work was supported by a South and South West Regional Research Grant (Thompson, 1990-91)). (Thompson and Polke, 1992). (Chapter 6).

The initial service for the under fives described and evaluated from 1984 to 1987, indicated that a clinic should be set up for young children with a dedicated staff, circumscribed practice and built in outcome measures. The various steps that occurred in this development are summarised in Chapter 7, along with the further developments, which have led to our nurses working more in the community alongside the primary care teams. All the clinic staff helped to collect data; Dr. Sara Coggon, clinical assistant helped with the testing of the database and Dr. Sue Blandy, clinical assistant, set up the young child clinic as a management clinic as a pilot. Xavier Coll, a senior registrar and Susanne Wilkinson, a research psychologist organised a telephone audit of satisfaction of the families by the clinical team. This added to the evaluation of the service from 1994-96. Susanne Wilkinson and myself carried out the data input. The statistics were analysed by myself, Xavier Coll and Aurelio Tobias. (Thompson, Coll, Wilkinson, Uitenbroek and Tobias, 2001, submitted).

The findings and conclusions are laid out in Chapter 8, together with the advantages and disadvantages of working more in the community. Suggestions of how this work could progress are described.

The work has all been done in the New Forest, but some of the ideas for the initial seminars for health visitors and the concept of working in the community began in Glasgow while I was working with Professor Fred Stone, Professor of Child and Adolescent Psychiatry, University of Glasgow at that time in Glasgow.

The work was started in the New Forest, at the time I became a Consultant in 1984. The first two evaluation studies were undertaken in 1987 and published in 1992; the work with the pilot clinic was carried out in 1987-1989; The New Forest Development Project in 1990-91 with papers written thereafter; the

sleep project, 1990-91; the Young Child Clinic 1990-1991 and 1994-96; the data analysis of the work has been finally completed and the MD written over the time period 1994-2001.

As most of the work was undertaken under the heading of audit, our district ethical committee does not expect such projects to be submitted. Ethical approval was sought and granted for the two research projects.

CHAPTER 2

Behaviour problems in young children: Prevalence, Aetiology, Maintaining Factors and Treatment

Infant psychiatry has become a discipline in its own right with a relevance to the healthy emotional development of children and as an important arena for the development of adult psychiatric disorder (Minde, 1988; Minde & Benoit, 1991; Zeanah, Boris & Scheeringa, 1997).

The concept of mental health in young children

Can very young children be perceived to have mental health problems?

Rutter gave the definition of a psychiatric problem in a child as " an emotional problem that had been present for at least 6 months and was causing distress to the child and/or the family and /or the environment". (Rutter, Tizzard, and Whitmore, 1970).

In young children the definition of a psychiatric problem would depend on the views of professionals and parents as to what normal expectations of behaviour should be and as importantly, would depend more often on whether the child's behaviour impinged on the carer to cause distress or impinged on the child's environment e.g. whether the leaders of a play group could tolerate a child's difficult behaviour.

Whether a child's difficult behaviour should be taken seriously would also depend on whether the behaviour was detrimental to the child's emotional and physical well- being in the present or for the future.

(Campbell, 1995) suggested that the definition of disorder in young children should include several components:

- 1) the presence of a pattern or constellation of symptoms
- 2) a pattern of symptoms with at least short-term stability that went beyond a transient adjustment to stress or change, such as that subsequent to the birth of siblings or entry in child care

- 3) a cluster of symptoms which was evident in several settings and with people other than the parents
- 4) that it was relatively severe
- 5) that it interfered with the child's ability to negotiate developmental challenges, thereby reflecting some impairment in functioning. This should differentiate between normal age appropriate behaviour, which might upset adults, and behaviour, which should be taken more seriously.

What do children require for good mental health and for good physical health?

(Fig.1.1)

What do children need for emotional health?

Problem solving techniques

To have different experiences with support

Meaningful relationships

Continuity of centred attention

Develop morality

*To be taught self responsibility
To learn about appropriate boundaries
Differentiate right from wrong*



Self value

Being valued and trusted

To become an individual

Differentiation of self

Good communication skills

Creativity and a sense of achievement

Figure 2.1

What do children need for Physical health?

Protection from accidents,
illness and inappropriate
stimuli

Satisfactory physical shelter

Time for play, sleep

Routine/consistency/security



Training for developmental skills
Good safe schools, play group

Adequate food/clothing

As we can see children need both physical and emotional needs to be met in order to thrive. Children need affection and child centred attention, which should be predictable and continuous with appropriate rewards and sanctions. This should lead to self-value and good self-esteem. In turn this would enable children to understand the difference of right from wrong and give them the opportunity to develop morals. Child centred attention enables children to be “tracked” at all times and thus avoid accidents. Some children, because of their temperament, are harder to “track” than others. Also, some parents due to their own preoccupations find it more difficult to find the energy to keep their children at the centre of their attention.

Parents who encourage and develop play, language and problem solving skills and encourage their children to separate and learn to cope on their own are equipping their children for the future. Play is important, as during play children learn co-ordination and manipulation skills, develop creativity, develop language and negotiating skills and practise sharing, which enables them to develop peer relationships. Language is an important tool in the development of relationships and a fundamental skill in order to be able to learn and read. Children who enter school talking well are advantaged over

those that are not, especially in their ability to interact with teachers as well as other children. The ability to “problem solve” is an essential tool for survival and the rudiments of this should be laid down in early childhood. Classroom teaching is based on this.

Nutrients are essential for growth and the development of the brain. Failure to thrive in young children may be a sign of not enough food being offered by an inexperienced mother or indicate a miserable infant who is not being given enough nurturing for whatever reason.

Safe, warm, housing is important. As will be discussed later, inadequate or overcrowded housing, may lead to poor mental health of mothers and their children. Children will be affected if their parents are struggling from financial problems, marital difficulties or mental illness.

Time for play and space to play is important also, and difficult in overcrowded homes, often with few spaces in the outside environment to play safely

Why might this go wrong? Figure 3.3

Why might this go wrong?

Parents ill health
Mental or physical, drug or substance abuse

Parental characteristics,
high emotionality, ADHD, personality disorder

Marital functioning
High hostility

Environment
Housing, Dangerous streets, No safe place to play, War

Functional income

CHILD
Characteristics Development

CHILD BEHAVIOUR



Behaviour problems may occur because of difficulties with the interaction of the child's developmental skills, his temperament and the parenting the child receives. The parenting the child received will depend on the parenting skills of the parent, which in turn would depend on the parents' background, knowledge and style of the parenting they received as a child, the parents' own temperament, emotional health and "space" for parenting. This would depend on the support the parent had for the task of parenting and what other pressures impinge on the parent, for example, financial and housing pressures.

The development of skills in children.

Children develop skills within certain time frames and there are quoted norms. For example *physical skills*: children sit up unsupported by 6 months, walk between 11 months – 18 months; *cognitive skills*: children will talk in two word sentences around 2 years and draw a man with a body and legs by 3 years of age.

Children's thinking processes.

Piaget in Sylva & Lunt (1982) studied how children's thinking developed. He suggested that children learn by interaction with the environment. He suggested that there were various stages children went through to become thinking and reflective adults and he named the processes he thought were involved. Although now most modern psychologists would suggest that his theories were too simplistic and built on interviews with children rather than formal experiments (except those that he did with older children) his concepts were important. The theories involving younger children are helpful clinically and can explain some of the behaviour of young children, for example, their sense of justice when dealing with friends or siblings.

Children may develop behaviour problems because they have not reached the required level of thought processes that are needed to understand and survive in their environment.

Summary of Piaget's theory (Sylva & Lunt, 1982).

Sensorimotor stage 0-2 year:

During this stage the child develops physical skills, reflexes, sucking and grasping, and thus is beginning to interact with his environment. By handling objects the child learns about shape and texture as well as permanence. He may not yet know that the breast is smaller one minute, but bigger when he moves nearer, but, by interacting with it, he will have developed an "*action schema*" about how he can access it.

During this time the child is "*assimilating*" new objects and "*accommodating*" the new information into his "*action schema*". The child thus lives for the present and has not yet learned the capacity to reflect on the world, but has begun to learn cause and effect. For example, crying will bring a parent and (often) produce food. The breast has a nipple and if the child sucks milk will appear.

Pre-operational stage 2-7years:

The child is beginning to think in symbols and use images in play, drawing and language. Over this time he will move from playing symbolically e.g. copying car noises or having tea parties with cups to playing made up games and becoming creative with magical thinking. Language development enables the child to begin to describe knowledge symbolically and to begin to have a conception of time, "yesterdays and tomorrows".

The child will attribute life to inanimate objects "*animism*". The young child sees rules as absolute, the world rotates round him and he is "*egocentric*". The child believes that everything has a purpose. His emotions are very strong and he is struggling to learn self-control. Because he is often angry and egocentric, if something should happen to a parent, for example the parent became ill or disappeared unexpectedly, for example, by a car accident, he might believe it was his fault.

“*Moral realism*” is also present in this stage. If two children make a mess while trying to be helpful to a parent the one who makes the larger mess will be perceived as the more naughty.

Operational stage 7-14 years:

During this phase children develop an understanding of “*conservation*” for example that a round piece of plasticine is the same as the same amount of plasticine rolled out. The children are in a “*concrete operational phase*”, but gradually move through different concepts of “*reversibility*” in order to handle more than one idea at once.

Formal operations 14 years to adulthood. (Some adults may never attain this phase):

This is characterised by the ability of the young person to hold more than one concept in his mind at once, be reflective, argue from more than one point of view and become idealistic.

Young children develop skills very quickly over a short period of time. Should these skills not develop at the rate usually taken as the norm for that age group then this might indicate that there is something about this child that needs further consideration and investigation. Equally whether there is concern expressed about the child will depend on the carer's perception of his child, his expectations of how a child of this age should be, as well as the skills of health professionals who might be observing or assessing the child. This means that professionals must have a thorough understanding of normal development, as well as the ability to tease out the worries of an anxious parent from the worries of a parent who has a child with significant problems (Illingworth & Illingworth, 1984).

As well as developing physical and cognitive skills the young child is developing an attachment to important figures in his life.

Attachment theory: What is attachment?

Bowlby's (1952) original monograph outlined his ideas about attachment and these form the foundation of modern concepts of attachment. Many authors have now returned to this work and have incorporated it into ideas of strategy management for problems of young children. Byng-Hall (1985) has outlined the importance of helping families re-work their "negative family scripts" in order that their new family may have a more positive experience than the parents had themselves as children. Routh et al, (1995) showed that the parenting efficacy of parents with their young children depended on the parents having had a good parenting experience themselves as children.

Although the study sample (Routh et al,1995) was small the results were interesting. The authors interviewed 37 mothers 13-43 months after attending a parent management group to aid them with their children, who had presented with difficult behaviour. They used the Adult Attachment Interview (George, Kaplan & Main, 1985), an interview which had 15 questions where the adult was asked to recount in a narrative style their childhood relationships with their own parents, how that changed over time and the adults' perception of why the relationships were how they were. Specific questions used probes as to how their parents might react when they as child were ill, went to school or tackled other life events. The interviews were audio taped to allow scoring and validation. Specific training was necessary in order to use this Interview Schedule. The parents filled in the child behaviour scores on their own child using the Eyberg Behaviour Inventory (Eyberg & Ross,1978) which provided two scores, an intensity score which reflected the parent's assessment of the severity of the problem and a problem score which was an indication of whether the behaviour was a problem to the parent (it had good validity with observational measures). The parents also filled in information about any family stresses and the family background. The parental scores on the Eyeberg Behaviour Inventory, post group, were strongly associated with the behaviour scores at referral in the unresolved attachment group, but not in the resolved group. The authors stated that the score of the quality of perceived childhood attachment in the mothers together with an independent contribution from a composite psychosocial stress index, explained 66% of the variance in follow

up of the behaviour score. The psychosocial score alone accounted for only 25% of the variance.

Bowlby (1969) based his ideas of attachment on studies of the behaviour of animals with their young for example the work of Harlow (1974) with monkeys, as well as on mothers and human infants describing it as “proximity keeping behaviour” in order to survive. In other words children or young animals sought the presence of their mother as a biological drive to seek food and protection.

He was greatly influenced also by the work of Ainsworth (1969) who suggested that the relationship between the child and mother was important in order to forge an attachment. This attachment was initially activated by the child's need for food, but also with a need for nurturing, for understanding, for validation of the child's inner most being, "his soul". Children who have not had this nurturing in extreme cases fail to thrive, cry incessantly, or lie listless and withdraw inwardly. Spitz (1946) gave very clear descriptions of this in his paper Anaclitic Depression based on observation of infants nursed inadequately in residential nurseries.

Bowlby and his colleagues studied in depth the behaviour of children, in turn, relating this behaviour to the parents' behaviour. They also followed these children up and related their future behaviour to their past experiences. He was influenced by his early observations in nurseries of children with working mothers, (Bowlby, 1952) by the work of Burlingham and Freud (1942) in the Hampstead Nurseries with refugee children from Nazi Germany and also the work of Robertson and colleagues with children admitted to hospital without parents (Robertson, 1971). By observing children, he described the anger of the small child left "abandoned" by his mother, how it would have made no sense to that child, how his anger would have turned to despair as the child thought that the mother was not coming back again. He suggested that the child then abandons all feelings for that mother in order to "protect" himself from the thought, real or imagined, of total destruction from the grief. Bowlby and colleagues thought that once a child went to that stage, it might be impossible for that child to trust an adult again.

What is the theoretical framework for this attachment theory? Bowlby (1969) stressed the need for all infants to feel safely attached, with a safe base, in order to explore the world. He discussed the need for the small child to have a "*good working model*" of himself, in order for him to know what he was like as a person: "what did people think of him? What kind of relationships could he expect in his present and future life?"

The first working model of a human being the child would come against was, in most societies, his mother. Within day to day transactions, he would be able to have a picture of his mother as a working model. Through his interactions with her, he would build up an interactional model of his mother and himself and would come to know whether that mother could provide a "*safe base*" or not.

Ainsworth (1969) described three patterns of attachment. In ideal circumstances, there would be a pattern of "*secure attachment*," in which the individual was confident that the mother would be available and responsive should he need it, especially if the child should meet adverse circumstances. This positive interactional model would enable the child to have a positive working model of himself.

The positive mother would be available to the child, would "hear" the child's distress, correctly interpret the problem and be able to respond lovingly. The child with such a parent would build up a picture of a "safe base", with a predictable and understandable mother. He would feel good about himself, he would be able to explore the world from this safe base and would also be able to get to know himself. The mother, by caring for the child, reinforced that the child was worth caring for.

"*Anxious resistant attachment*" was a pattern where the individual was uncertain that his mother would be available or responsive or helpful when called upon. Because of this uncertainty the child would always be prone to separation anxiety and would tend to be clingy and anxious about the outside world. This pattern, in which conflict was evident, was promoted by a parent who was available and helpful on some occasions, but not at another, by

separations and also by parents who threatened abandonment. Examples of this would be parents who threatened suicide, or who were frequently ill, for example a mother who was frequently ill with a psychotic illness. This would apply also when a child was frequently threatened with abandonment; for example "If you do not behave yourself, you will have to go into a Children's Home".

Unpredictable behaviour also confuses. Rutter (1966) found, in studies of children of mentally sick parents who had attended the Maudsley Hospital, that where the parents were sometimes hostile or unpredictable by being mentally ill or drunk, that children had the most disturbance.

The third pattern described was that of "*anxious avoidance attachment*", in that the child had no confidence that when he sought care he would be responded to helpfully, but on the contrary the child expected to be rebuffed. Bowlby suggested that when this child was an adult and tried to live his life and future without the love and support of others, he would try to be emotionally self-sufficient and may later be diagnosed as narcissistic or as having a "false self", as described by Winnicott (1949). This would have happened because when the child went for help he was continually rebuffed. The child then withdrew into another safer world and may have given up trying to seek reassurance.

Ainsworth (1969) developed this work with her psychological test of attachment the "strange situation test", which was a way of observing and measuring the child's ability to cope with being left with a stranger. She was able to measure degrees of the attachment of babies of one year to their mothers. She described the secure child, the insecure- ambivalent child, the insecure- avoidant child, and more recently the insecure- disorganised child, (Bretherton,1985). Infants who were securely attached at one year of age were more secure and more confident. Children who had displayed insecure - avoidant behaviour at one year were more isolated and displayed more unprovoked aggression. When the researchers looked back at the mothering style of the mothers to the children when the children were infants, the

mothers who had been more in tune with their children's needs were more likely to have securely attached children. Mothers, who had had a more functional approach to parenting, that was to say fed and cared for their infants, but had not responded to cues of distress, were more likely to have insecure children.

Bowlby suggested that all children developed a pattern of interaction, which was important as the child would, through it, lay down a cognitive as well as an emotional understanding of his life. He suggested that just as a child developed physiological pathways for pain and sensation, so the child would develop cognitive "pathways for attachment". He suggested that this pattern of relating, once developed, became permanent.

Although Bowlby suggested that patterns once developed were stable, adoption research has suggested that patterns may change with change in environmental circumstances for example a move out of family of origin (Bohman & Sigvardsson, 1985).

Other workers have described different aspects of the developing relationship using a different theoretical base. Stern (1977) described the "tracking" by mothers of children's verbal and non verbal language and Cox et al (1987) described how mothers "cue" into the baby's needs and develop links through interaction and language.

f) Fathers

Lamb (1982) has outlined the research on paternal influence. He suggested that the infant's sociability was affected by the security of both infant-mother and infant-father relationships, but that the security of the relationship with mothers was most important. The most sociable infants were securely attached to both parents, followed by those attached to mothers alone, then those attached to fathers alone. The least sociable were attached to neither. He suggested that fathers influenced their children's attachment by being supportive to mothers, by directly stimulating the child, by being a role model

and by care-taking for the child. The mother was freed up to devote herself to the child by the father releasing mother from the need to earn money.

If the father were a caring adult, from the mother's point of view, he would be a support in the shared task of parenting and together they would give clear messages to the children. This would require, however, couples to have sorted out their own relating before the child came along in order to make "emotional space" for the child. (Clulow,1982).

However, should the father have had difficulties in parenting, then he could also give an unclear message to the child and further confuse him. The child's working model of himself would even more unhappy, his base even more insecure. Examples of this would be the caring father who became hostile when drunk, or a father who appeared caring during the day, but who persistently sexually abused his child every evening. A child's experiences would be continually denied, if he was being constantly abused in a family which appeared to the outside world as a together, loving family. It would be not surprising if it took some children long time to tell of their very difficult experiences, but Miller (1984) described from clinical experience, how helpful it was for the children once their experiences were recognised and acknowledged.

Should the mother, however, be not an ideal model, but the father be very suitable, this might be enough to compensate, at least in part, for the lack of mothering. The child might be able to build up a positive attachment model with the father instead of the mother. This might occur should the mother be depressed, but the father was nurturing and caring.

This framework of attachment theory illustrates the importance of early experiences for the child. If children do not have good experiences with a secure base they might present with problems in different ways. The anxious clinging child would show anxious attachment to the mother who gave unclear messages of care and concern. Some children might decide, that the only way

to "reach" a mother who was angry and threatening was to placate her and the child might end up "parenting" the parent.

Children who are continually rebuffed might stop trying to relate to their mother. They may indicate in other ways their distress, for example withdraw from the outside world and stop learning.

It would be easy, therefore, to understand that when those children grew up they would find it difficult to make satisfactory relationships and to parent their own children successfully (Ney,1986).

It has been suggested that women often have an over-intrusive relationship with their daughters, and this would fit with the fact that women need to get nurturing for themselves from their own daughters, which they may have not got from their own parents. On the otherhand, they might treat their daughters in an abusing way because of what happened to themselves. Daughters, who understand that their own mothers were unsatisfied with their role, might feel dissatisfied with their own female role. Society has confirmed this paradox that women, although very necessary, are not of equal rank to men as they are usually in the most caring jobs, but these jobs are the most poorly paid - nurses, secretaries, social workers, infant teachers, cleaners etc.

What behaviour problems occurred in early childhood and were they common?

The problems most often encountered in clinical practice are where a child is difficult to manage or to get into a routine. This might result, for example, in poor eating patterns with loss of weight or in difficulty in settling to sleep.

The way the problems present or impinge would depend on the age of the child. Some children present with more than one problem, with the first problem influencing the development of a second, or present with two or more co-morbid conditions right from the start, which interact. The child's problem will often be the cause of a relationship difficulty with the carer, which may in turn have a negative feed back on the child.

The main problems encountered in young children :

- 1) *persistent crying* described by St. James-Roberts (1989)
- 2) *sleeping problems*, where the child will take a long time to settle at night and/ or wakes frequently through the night, and/ or wakes early in the morning
- 3) *eating difficulties*, where a child is not eating the appropriate quantities for his age, or the right texture or is being sick or in pain with eating
- 4) *bowel or wetting pattern* non commensurate with developmental stage
- 5) "*emotional instability*" where a child is abnormally shy, aggressive, or more prone to temper tantrums than the average child, or having extremes of mood swings
- 6) *poor peer relationships* where the child has major difficulties with relating to other children, because of shyness, aggression or inability to use and respond to social clues
- 7) *poor relating to carers*, which of course might be due a problem with the child or carers or both
- 8) *fearfulness, anxiety, psychosomatic problems, and sadness and depression* might present also in very young children.

It would be important to differentiate between self-assertion, which would be part of the young child's developmental path towards independence, and non compliance, which might signify an angry defiance and might be a marker of difficulties in the parent-child relationship.

Overactivity might present as a problem in its own right and can be measured separately by use of the Routh Activity Scale , (Routh 's modification of the Werry-Weis Activity Scale, (Routh,1978)). The 27 item checklist evaluated activity on a 4-point scale (0-3) in daily situations and will indicates the presence and severity in children of symptoms of overactivity (fidgets and constant movement in a variety of situations) and poor concentration. Higher scores indicate a higher activity level.

Children with physical disability might present with behaviour problems.

They might be in pain or might be frightened. However children with physical disabilities could be children with particular temperamental patterns and could

be in families with difficulties. To have a child with a physical disability will be hard enough for any parent, but if the child is temperamentally oppositional and refused medicines or physiotherapy, then inevitably, the parent's problems would be compounded. The same situation will apply to parents who have *children with severe learning difficulties* from any cause for example, children with severe language difficulties or autism (a triad of no or poor language skills, poor social interaction, obsessive or rigid behaviour).

This thesis will not discuss children with physical or severe learning disabilities.

Epidemiology

Achenbach (1980) argued that it was important to establish the epidemiology of child psychiatric problems, but that it was difficult to compare across cultures, as there was confusion about terminology and definitions. Achenbach did much himself to aid clarity with his scales which have been translated into different languages and used to compare the rates of problems in different countries (Achenbach & Edelbrock, 1983).

Offord (1987) agreed with that epidemiology was important and discussed the importance of the boundaries between normal and abnormal.

However more recently Bird (1996) reviewed and compared results from various worldwide studies. He said that despite different questionnaire design and methodologies, results did bear comparison, with rates similar in most cultures, and factors correlating with pervasiveness being similar.

Problems in the pre-school years were common.

Emotional and behaviour problems in pre-school children have been found to be common and persistent through early childhood. In a classical study Richman, Stevenson and Graham (1982) selected 1 in 4 of a community sample of children at the month of their 3rd birthday from a health data base (Richman & Tupling, 1974) of all families in the Inner London Borough of Waltham Forest (705 children). 86.7% of the families sampled were traced

and interviewed. Usually the mothers were interviewed although, if possible, fathers were interviewed also. The researchers used the Behaviour Screening Questionnaire (BSQ) (Richman and Graham, 1971) (a well validated questionnaire, which covered social background and development of the child, and asked in depth about behaviour problems in the child, including frequency and severity. The authors compared it with a clinical interview and calculated that it selected 100% of severe cases but selected only 62% of mild cases). They also used a Behaviour Checklist (BCL) (Richman, 1977) which was a checklist covering behaviour developed from the BSQ. The BCL was first checked for reliability by asking 68 parents to fill in the questionnaires on their children on two occasions 4 weeks apart. The children were aged between 2½ and 3½ years. The correlation between scores was 0.81. The checklist is not as sensitive or specific as the BSQ but does not miss any serious problems. Both the BSQ and the BCL were used with 705 children and the parents filled in the BCL first, but it was not scored until after the BSQ was filled in. 100 children whose scored over 10 on the BSQ were matched with 100 by sex and social class with children who had scored less than 10. All 200 were interviewed to compare the sensitivity of both the BSQ and the BCL. The BSQ picked 6.8% false positives and the BCL 12.6%. The BSQ picked out 9.8 false negatives and the BCL 30.4%. The BSQ picked out 100% of the moderate to severe cases the BCL 82%. The author suggested that the BCL would be useful as a screening tool by health visitors. Mothers who had scored their children as having a problem could be asked more specific questions in order to offer help if appropriate.

The sample consisted of 705 children from non-immigrant families. 14.3% of children scored above the cut off for problems. Each child was then given a clinical rating and the children fell into the following categories; no problem 77.6%; mild problem 15.6%; moderate problem 6.2%; severe problem 1.1%. There were no gender differences. The prevalence of specific problems was high in the sample of children, who were in the high problem group, with 31% of children having some eating problem, (12% controls); 19% with a sleep problem (12%); 60% overactive (23%); 30% attention seeking (5%); 19%

temper (5%); 34% difficult to control (2%); worries 13% (1%). There were no differences in gender.

Jenkins, Owen, Bax, & Hart (1984) undertook a longitudinal study of the health, development and social environment of all pre-school children living in two geographically defined areas of North London. 361 children were screened at 6 weeks and again at 6 months, one year, 18 months and 2, 3 and 4 ½ years of age. Children moving into the area were included but not those that had moved out. The researchers achieved a follow up rate of over 90% (Hart, Bax & Jenkins, 1981). Children moving into the area were compared for behaviour characteristics and were not statistically different from those that moved out.

Information about the children's behaviour and health was collected by interview using a standard questionnaire, and by further questions, when the parents were asked if any particular aspect of their children's behaviour worried them. Different questionnaires were used for children above and below three years. The prevalence data given was cross sectional and the longitudinal data given was only on those children who were screened at each time point.

The authors found that, in children under one year of age, the problems most often reported by parents were sleeping problems (13% of the children) with night waking being the most common problem reported between 1 year (23% of the children) and 18 months (24% of the children). At 4 ½ years 10% of children were still being reported as regularly night waking with a further 6-9% children newly reported with night waking. Temper tantrums were the most commonly reported problems at 4 years, with 18% of children having temper tantrums.

Offord, Alder & Boyle (1986) estimated the prevalence of conduct disorder (cruelty to animals or people, aggression, fighting, stealing, destructive at home or at school, lying and cheating) in a sample of 1444 children aged 4 to 11 years, from a target sample of all children born from January 1st 1966 to January 1st 1979, who lived in four administration districts of Ontario.

Exclusion criteria were children living on Indian reserves, children living in institutions and children not registered on the 1981 census (3.3% of the total population). (The full sampling methodology was outlined by Boyle et al, 1987). The sample selection was done by stratified random sampling from the census file. Sample size requirements were set to ensure that the threshold of precision of estimates of disorder for each of the 4 administration regions would be $\pm 4\%$ with a 95% level of confidence. The participation rate was 91.1%. The measurement of each psychiatric disorder was based on the DSM-111 criteria using the Child behaviour Checklist (Achenbach & Edelbrock, 1983) with additional questions in order to collect items on which to base the diagnosis. The final threshold setting for conduct disorder was determined by the ability of a child psychiatrist to be able to determine a diagnosis from the items collected. A random sample of 194 children was seen by a child psychiatrist to check the diagnostic criteria against the Checklist. Parents and teachers both filled in the Checklist and the disorder was deemed to be present if the threshold was reached on either Checklist or both.

Other variables were collected: urban-rural (urban areas, a population of more than 25,000); on welfare; subsidized housing; low income (Canadian government definition); unemployed; low education of mother; overcrowding, one room per person or less; single parent; large sibship, 4 or more children 0-18 years living in the house. Conduct disorder was present in 7.2% of boys and 2.3% girls in urban areas and 5.1% of boys and 0.6% of girls in a rural population and, overall, 6.5% boys and 1.8% girls. The presence of conduct disorder was linked to all the variables collected except the urban-rural divide (the percentage was not statistically different) and being in a large sibship. 59% of the boys and 56% of the girls with conduct disorder also had a diagnosis of hyperactivity and 19% of the boys and 31% of the girls also had a diagnosis of a neurotic disorder, either anxiety or depression.

Researchers in other community surveys have confirmed that behaviour problems are very common in this age group. Barron and Earls (1984) interviewed the mothers of 90.9% of a total sample of 110 children living on

Martha's Vineyard, an island in the USA, using the BSQ. 24% of the children were reported to have behaviour problems of clinical concern similar to the findings of Richman et al (1982). The authors collected information also relating to parental stresses and the temperament of the child, using a questionnaire based on the 9 dimensions of Thomas Chess & Birch (1968) (a questionnaire which used 9 dimensions of temperament: activity level; regularity of biological functions; approach or withdrawal tendencies to new situations; adaptability to change; sensory threshold; quality of mood (whether predominantly positive or negative); distractibility; and a combined category of persistence and attention span)). The temperament of the child was highly related to disorder while parental stress was not.

Luk and colleagues (1991) questioned the parents of a representative sample of 855 Hong-Kong Chinese children aged 36-48 months by using the BSQ (with a cut off of 10 (Richman, Stevenson and Graham, 1982)) and the Pre-School Behaviour Check List (PBCL) (McGuire & Richman (1986) (a 22 item check list designed for use by nursery personnel, (scoring is 0,1,2 with a cut off of 12) which correlates well with the BSQ). The questionnaires were translated into Chinese. Children were screened at nursery school. An attempt was made to assess also, those children not registered at a nursery, and, of these, a random sample of 300 children was chosen. Families were phoned until 100 were sampled. 12.5%, of that random sample of children, were above the cut off for the BSQ and 27.5% for the PBCL. In a second stage study 234 subjects were recruited by stratified random sampling according to the results of the first stage and the parents interviewed by a child psychiatrist.

The results suggested that 53.7% of children had no problems, 23.1% had dubious problems, 18% had mild problems, 4.5% had moderate problems, 0.7% had severe problems. There were more boys in the mild, moderate and severe categories. Children with severe problems were more likely to have had a language difficulty and to be hyperactive and non-compliant. The authors suggest that as they were not able to reach all families of pre-school children the prevalence of problems might be higher. However they pointed out how

similar their findings were to the Richman, Graham and Stevenson (1982) study.

Stallard (1993), used the BCL, which was given out by health visitors to mothers at their child's 3 year old check, and found in a community sample of 1170 3 year old children in Bath (81% of the total sample,) that 10% of children woke throughout the night, 8% of children were overactive, 7% were difficult to control.

He added a parental concern rating after every question on the checklist of "not at all concerned, a little concerned, or concerned a lot". Although the mothers reported on the checklist the problems that they thought the child had, they reported lower rates of personal concern about the problems. Stallard pointed out, however that mothers rated some problems as being particularly difficult, a finding that might be missed if an overall rating was used to identify problems. 2% of mothers reported a lot of concern with their child's overactive behaviour, only 3% of mothers, however, were concerned about night waking.

He suggested the use of the BCL with the added category of parental concern as a screening tool to alert health visitors to mothers with concerns. He found that most concerns could be dealt with at health visitor level.

On the other hand Lancaster, Prior & Adler (1989) cautioned that maternal characteristics, such as psychological health problems, marital adjustment and confidence in mother/wife roles, influenced how mothers rated their first born children (N=100) on the pre-school behaviour questionnaire (Behar & Stringfield, 1974). The children were aged 39-51 months with a mean age of 45 months. The authors found the contributions of child temperament ratings to the finding of the behaviour problems to be small. They suggested that child behaviour problems and temperament ratings may be confounded in parents' minds.

Lyon & Plomin (1981) used the EAS scale (Buss & Plomin, 1984) Emotionality (general emotion, fear and anger), Activity (tempo and vigor), Sociability (gregariousness) and Impulsivity (Persistence and impulsivity), which measured each trait on five items on a five-point scale.

137 sets of twins, aged 2-6 years, were identified through twin clubs. The group had mixed zygosity. Both parents rated themselves as well, using the adult version of the scale and also rated their twin children. The parents rated their children separately and indicated 0.51 agreement (Kappa) between parents for rating of childhood characteristics .

The correlation between child-parent ratings on the scales looking at both parents ratings of the children and each other did not indicate that parents projected their personality on the children (correlations of only 0.13). The highest correlation was for mothers rating the quality of affectionateness of the children (0.29 to 0.17, $t=1.87$) indicating that mothers may rate the affection of their children in terms of their own affectionateness.

A similar finding using similar methods with twins with the same scales was found by Stevenson & Fielding (1985).

Richters(1992) reviewed 22 studies and came to similar conclusions, that there was no good evidence to suggest that parental psychopathology influenced parental ratings of children's behaviour.

Fears and anxieties are present in young children also. (Stevenson-Hinde & Shouldice, 1995) studied 70 second-born children aged 4.5 years to 7 years (\pm one month) from Cambridge and surrounding villages. These children had been part of a longitudinal sample recruited at 2.5 years of age ($n=82$) through playgroups, nurseries and local newspapers (all fathers were then employed, all families were intact, 90% were in occupational classes 1-3).

Mothers had completed a temperament questionnaire (for this study approach/withdrawal was the item used), a fear questionnaire, a questionnaire to capture worries concerning the child, and the child was also asked about worries using a puppet. The child was observed with the mother and also with a stranger.

Specific fears in the child were consistent from 4.5 to 7 years. Mothers' ratings of the child's approach/withdrawal to places and things were more consistent than those to people. Mothers, whose children were seen as securely attached, overestimated their child's fear of strangers, while mothers, who thought their children to be insecurely attached, underestimated their child's fear of strangers. Mothers' ratings of worries over time were consistent only for boys, while consistency between mother and child was only present for mother/girl pairs. Stevenson and Fielding (1985) have considered that there is a genetic influence in the development of fearful behaviour in children.

Co-morbidity is common.

Many children present with more than one problem in practice. Richman and colleagues (Richman et al, 1982) found that difficulty in settling the children at night and waking at night were clearly associated with overall behaviour problems

The type of co-morbid problem, which presents is important as well as the number and severity of the problems. Robins (1966) followed up a sample of 524 adults, 30 years after they had attended a child guidance clinic and compared them with 100 normal controls. She located 90% and interviewed 82%. She also had adult records for 98%. Two psychiatrists interviewed the adults and made a joint decision on diagnosis. 71% of the children originally referred into the clinic were referred because of anti-social behaviour, with more boys than girls referred. Mean age of referral for boys was 13 years and for girls 14 years. In the referred families financial instability was high, as was marital instability.

Four percent of the control subjects had 5 or more adult antisocial problems compared with 45% of the clinic group. On follow up 52% of the control group were free of psychiatric disorder compared with 20% of the control group. 8% of the control group had a seriously disabling condition compared with 34% of the clinic group, who had a high rate of arrests, a low rate of occupational achievement, a high divorce rate and often had been admitted to a mental hospital. Their children often had behaviour problems. The more severe the antisocial behaviour on referral, and the higher the number of symptoms, number of episodes and the degree of risk of arrest, the more disturbed the adult behaviour. Children without numerous symptoms did as well as the control group. Clinic cases who had ongoing problems tended to be boys, who truanted, stole, took part in inappropriate sexual activities, stayed out late, were in poor friendship groups, were aggressive, impulsive, reckless, slovenly, enuretic, lacked guilt and lied without cause. Problems usually began, at least, by 7 years. Girls were usually referred a bit later and usually for sexual behaviour. There were usually problems in the family background, where fathers might be alcoholic or socio-pathic. There was low financial status, divorce or marital hostility. If improvement took place, this happened between 30 and 40 years of age. It is interesting to note that 72% of the children evaluated originally in the child guidance clinics were never treated.

The temperament of the child is important. Barron and Earls (1984) in their community study on Martha's Vineyard, found that characteristics of inflexibility, high intensity and low adaptability were correlated with high total BSQ scores, as were poor parent-interaction scores, and a high social stress index. Temperament will be discussed later.

Persistence of problems.

Richman, Stevenson and Graham (1982) followed up a community sample of their three year old children. There were 94 in the problem group, 91 in the control group, and also 98 children who were a representative sample of the original sample, matched for behaviour problems, gender and social class. The

latter group of children were added to make the group more representative. Behaviour measures were taken when these children were 4 years and 8 years.

At 4 years of age, 70% of the children in the problem group compared to 14% of the children in the control group had a clinical rating of mild, moderate or severe problems. At 8 years of age, 62% of the problem group remained with a significant score on clinical rating compared with 22% of the control group (61% of the problem group at three years). The problems were in the domain of management, sleep, and control (temper tantrums, aggression, attention seeking and getting into fights). These children were more likely to wet at night and show symptoms of worry and unhappy mood. They had poor social relationships, had problems with concentrating and were more fidgety. There were other significant findings in continuities, with poorer speech development, lower reading, and cognitive levels and also difficulties with behaviour at school between the two groups. Contrary to the findings at three years of age, there were more boys with problems. 73% of problem boys were still reported to have problems at age 8 years compared with only 48% of the girls.

Children in this study who showed disruptive, distractible behaviour at 3 years were more likely still to have problems. This was true especially of dull, distractible boys, but, conversely, bright distractible girls. Only 5% of boys who were not anti-social at 8 had signs of restlessness at three. 46% of 8 year old boys with problems had been restless at three years of age. 1/3 of 8 year old boys with fearfulness had been fearful at 3 years. Only 8 % of boys with fearfulness at three years were without problems at 8 years.

Factors that were linked with poorer outcome were: marital dissatisfaction, parental criticism especially of fathers to mothers and children and maternal irritability to children. Physical and mental health in the parents was worse in the problem group at 3 years and at 8 years.

Jenkins, Owen, Bax, & Hart (1984) described the persistence of sleep problems. For example, 21% of one year olds woke at night, which they suggested was the peak time for sleeping problems; 17% were still waking at 18 months, (1/4 of the original sample) 10% regularly; 10% at 2 years, 11% at 3 years and 6 % at 4 years. 5% of the total sample woke throughout till 2 years of age.

They presented their data as a “probability tree”, as described by Plewis (1980) who suggested that the best way of describing measurements of stability was by using dichotomised variables. In this the presence or absence of an attribute at any one point of time could be related to the presence or absence of that attribute at a second or third point in time, from which conditional probabilities could be calculated.

Using this method Jenkins and colleagues calculated that the chances of being a night waker at 2 years was higher if the child had been a night waker at 1 year. 2/3 of the night wakers at one year were night wakers at either at 18 months or 2 years.

In a longitudinal study of 56 children with sleep difficulties taken from a community sample of 308 children at 8 months of age, (Zuckerman, Stevenson & Bailey, 1987) 41% of those who had a sleep problem at one year of age still had a sleep problem at 3 years. Teething problems at 8 months predicted a sleeping problem at one year (27% vs. 14% $p > .04$). Continuity was predicted also by mothers mental state. The persistent group were more likely at 3 years to show poor attention (9% vs. 3%), to be hard to manage (22% vs. 0%) and to show persistent temper tantrums (22% vs. 0%).

Peri-natal factors and early temperament characteristics, in particular, crying predicted ongoing sleeping difficulties in the study by Blurton-Jones et al. (1978) of 59 developmentally healthy children recruited from health visitors. The children were first interviewed at 15 months and again at 21,27, 33 and 39 months.

Behaviour problems in three year old children predicted continuity of sleeping disorders (Richman, Stevenson & Graham, 1982). 48% of children, who had co-existent behaviour problems and settling or night waking difficulties at 3 years still had sleep and waking difficulties at 8 years. 50% of children with sleep difficulties at 8 years had had problems since 3 years.

Egeland et al (1990) suggested that preschool children were expected to fit into overtly imposed structures, behave in socially acceptable ways, relate to peers socially and conform to adults other than their parents. He suggested that many problems in early childhood were part of the child's developmental adaptation to his situation and that, as developmental steps continue to be made, it was hard to measure stability

His team interviewed 729 mothers and their 3 year old children and re-interviewed 80% (691) when the children were 4 years (excluded from the study were unmarried mothers and children with a disability). The presence of behaviour problems was rated using the Behaviour Screening Questionnaire (BSQ) (Richman & Graham, 1971) at age 3 years and using the Conners' Parent Rating Scale at age 4 years (Conners, 1990). At each time point, marital conflict, undesirable life events, depression and maternal hostility towards the child and the mother's perception of her competing roles was noted. In multivariate analyses the development of disturbance in pre-symptomatic children was predicted by a higher BSQ score at 3 years and perceived high maternal role competition and maternal hostility assessed at both interviews. The initial BSQ score at three years and initial maternal hostility predicted persistence in behaviour problems from 3 years to four years only. These results underscore the complexity of the relationships among maternal, familial and childhood variables. 10% (71) children were above the cut off for behaviour problems at 3 years and 22% of these were above the cut off for either hyperactivity or conduct disorder also. 55% of children who were above the cut off at three years were also above the cut off at 4 years (persistent group). 18% (109) children below cut off at 3 were above at 4 years. The odds ratio of a problem present at three being present at 4 years was 5 fold ($P < .001$).

High risk children were identified from the above sample at three years by teachers on 80% of the behaviours on the Preschool Behaviour Questionnaire, (17 acting out children, 7 withdrawn children, 3 children with attention problems, attention problems). 22 normal preschool children were identified also. All the children were followed through first, second and third grade. There was a high degree of stability found for each group. Observations of children's behaviour took place on various measures at school, including attention span and interaction with teachers and peers. Life stress in the families was measured, as was the mother's depression score with the Beck Questionnaire (Beck et al, 1961) (a score of 13 to 20 indicates mild depression, 21 to 30 indicates moderate depression, 31 or greater reflects severe depression) and also the intelligence of the child (Wechsler, 1974). At home the family relationships were observed with the Home Inventory Observation (Caldwell & Bradley, 1978) (an inventory of the quality of the home, and the parent's support to the child and the emotional warmth in the home).

Children with problems at three years had significantly more problems at first and second grades. Discontinuity of outcome was accounted for by a lessening in maternal depression, a positive change in life circumstances, fewer stressful life events experienced by the family and an improvement in the quality of the home environment observed (more stable, more predictable, more stimulating, more responsive, more accepting and more positive to the child). Continuation of maternal depression or an increase in symptoms appeared to directly affect the quality of care the mother was able to provide for her child, indirectly affect the quality and organization of the home environment and predicted continuity of problems for previously competent preschoolers.

Campbell (1987) recruited a clinic sample of 46 children (30 boys) and a non-clinic sample of 21 children (11 boys), whose parents were worried about their children's behaviour (aggression, high activity or defiance). Age on recruitment was between 25 and 47 months (mean 35 months). Children were followed up at 4 years of age (mean 47 months) and again at 6 years of age

(mean 72 months). The mothers were interviewed and completed the Behar Preschool Questionnaire (PBQ, Behar & Stringfield, 1974) at 3 and 4 years and the Child Behaviour Checklist (CBCL, Achenbach & Edelbrock 1983) at 6 years. Both are standardised, factor analytically-driven measures of childhood problems. Parents rate a series of behaviour on 3-point scales (0 = not descriptive of the child, 1 = somewhat or sometimes descriptive and 2 = very descriptive or often descriptive). They also completed the modified Werry-Weiss-Peters Activity Scale (Routh, 1978) at all three assessments. This checklist evaluates activity in daily situations with each behaviour rated on a 4-point scale (0-3), higher scores indicate a higher activity level. Items were identified on both questionnaires, which correlated, so that change in problem behaviour across the age groups could be measured.

When the children were six years of age, the parents of 32 out of 46 problem children were interviewed (21 boys, 11 girls) and 21 control children (10 boys, 11 girls). 29 problem children were interviewed at all three assessments (20 boys, 9 girls) and 19 controls, 8 boys, 11 girls). Children who had improved at 6 years (16 children, 10 boys and 6 girls) were found to have had less severe problems (overactivity, concentration, restlessness and disobedience) at 3 years than those who did not improve (16 children, 11 boys and 5 girls) and in particular were less likely to have problems with poor peer relationships at 3 years. Persistence in problem behaviour was also correlated with a conflicted mother-child relationship and ongoing family stress and disruption.

Persistence of problems in the follow up study of these children from 3 years to 9 years was predicted by a negative mother-child interaction, (more maternal reprimands and directives), by aggressive, irritable and non-compliant child behaviour; higher levels of stress in the family, and where the initial maternal perceptions were of more severe hyperactive and aggressive symptoms (Campbell, 1990). 50% of children perceived as difficult to manage by their preschool teacher showed continued difficult behaviour in the school years with 33% of the difficult children being diagnosed as ADHD. 67% of disruptive children at 6 years still had diagnosed, disruptive behaviour at nine years of age (Campbell, 1991).

Anderson et al (1987) enrolled 1037 children at 3 years from a birth sample in Dunedin. These children were followed up at regular intervals. At 11 years of age 792 children (out of 925 traced) were interviewed. 5.7% were diagnosed as having an attention deficit disorder (overactivity, poor attention and impulsivity), 3.5% had an Oppositional Defiant Disorder (constant temper tantrums, defiance to commands, aggressive behaviour out with developmentally level), 8% anxiety and depression.

Fergusson, Horwood & Lawton (1990) followed up a birth cohort of 1265 children and their families from 4 months of age and then, annually, till they were 11 years of age (1048 children 83% of original sample). They looked at behaviour problems in the children with Rutter (1967) and Conners (1969) Questionnaires, and recorded school achievement, offending behaviour, child health (including accidents in under fives), access to preschool services, family income and material conditions and life events. There was a strong link between the family social background and childhood problems. Using LISREL, a computer modelling programme, the authors proposed an interactive model which took into account all the above variables.

These children were followed up to 15 years of age (942 children (74.5% of the original sample of 1265 children, 84.5% of the sample were still resident in New Zealand) (Fergusson, Horwood & Lynskey (1994) The authors found that the 27 young people who had multiple problems were more likely to have been born into disadvantaged families, and to have been born from an unplanned pregnancy in young parents. Their parents were more likely to have had higher rates of criminality, alcohol and drug problems. These disadvantages continued through childhood, with changes of parenting figures, hostile parenting and poor homes. These children had poor medical care, attended school infrequently and changed school often.

By 18 years of age, children whose conduct problems at 8 years placed them in the top 8% of the group, were 4.8 times more likely to leave school without qualifications than the 50% least disturbed of the population. Rates of

unemployment were also 2.9 times higher in this most vulnerable group compared with the least vulnerable. They were more likely to achieve less educationally. The most vulnerable were more likely to be abusing alcohol and drugs. Although social class and family variables influenced outcome, when these were controlled for, conduct problems at 8 years predicted problems at 18 years.

What factors influence the development and maintenance of behaviour problems in children?

a) Parenting skills

The ability to parent successfully will depend on how much energy can be devoted to the parenting. This will be influenced by many factors. Knowledge and understanding of the needs of young children would also be important.

It has been suggested that parenting which is contingent with the child and child centred would result in positive behaviour possibly mediated through secure attachment. Examples are parenting strategies that involve negotiation or explanation of the task (Dunn, 1988), or engage the child in co-operative approaches (Webster-Stratton, 1991) and which uses praise and rewards for good behaviour. It has been postulated that this makes it easier for the child to understand why he was asked to do the task and makes it more likely the child will “internalise” the command. This is thought to be important in the step to enable the child to begin to take responsibility for himself and to still behave when the parent is not there. Strategies which enabled the child to learn how to problem solve were seen as positive, as were strategies that improved the child’s self esteem (Grusec & Goodnow, 1994). Agreement between parents as to what behaviour was acceptable with clear structure as to what to do about it, with built in consistency and predictability, was also seen as helpful to children. (Webster-Stratton, 1988).

The context in which strategies were delivered was seen as important and parents, who used play and creativity in turning strategies into shared tasks

seemed to do better (Gardner,1994). Talking with children and encouraging the use of language gave the child important skills to use to understand the world around him and to be able to explain his needs in speech rather than resorting to physical expression.

On the other hand strategies that do not seek the child's participation are not thought to be helpful, for example strategies that de-skill or undermine the child, or are imposed on the child without discussion and by confrontation. The use of physical or emotional sanctions as punishments, without built in rewards, are other examples. These are often grouped under the term "authoritarian parenting". Patterson (1982, 1994) espoused a social learning theory framework in which children learnt appropriate behaviour in the home through modelling on their parents' behaviour and by reinforcement by parents. He suggested that most of this learning would come through how the family reacted in interactions, which took place in the context of arguments and fights. He suggested that the problem behaviours demanded or 'coerced' a reaction from parents and that these reactions were in turn reinforcing. Thus authoritarian parenting was coercive parenting, with the effect of causing the child to spiral further into negative behaviour. This, in turn, reinforced the parents' coercive behaviour with negative enmeshment, which was difficult to disentangle. Chains of conflict could occur. He suggested that this was at the root of the development of anti-social behaviour and conduct disorder as the child, because authority was imposed on him, never learned to develop, positive internal controls, as his negative behaviour was being reinforced constantly, with no positive reinforcement of positive behaviour (Patterson,DeBaryshe & Ramsey, 1989).

Gardner (1994) used detailed home observation to analyse mother-child dyads. She looked at interactions during spontaneous joint play with children with behaviour problems and those without, and found that mothers of pre-school children with behaviour problems made fewer contributions to keeping the activity going and were less responsive to their children's contributions. Children with behaviour problems played a stronger role in initiating or maintaining the activities. Less positive affect was present in the problem

group, and play more frequently degenerated into conflict. The author suggested that mothers' interaction was important in the development of behaviour problems. Play was a good opportunity to learn and practise language, co-operating and negotiating skills.

Gardner (1992) also found in an observation study at the homes of the mothers with demanding 20 pre-school children with a conduct disorder and 19 children without, that mothers with a child with a conduct disorder were six times more likely to capitulate by failing to follow through a command with a child and were more likely to do this, if the mother had initiated the command.

In a third study with a different community population of children (from the NFDLP described in chapter 5) Gardner and colleagues (Gardner, Sonuga-Barke & Sayal, 1999) looked at mother initiated activities and mothers' ability to keep the interaction going by suggestion, commands and questions thus enabling the child to know that his compliance was appreciated. The authors studied the mothers' sensitivity of control within their parenting style as they gave imperative commands or used a gentler request or a question form and whether statements, which were controlling, made sense to the child. Play during which there were mutual expressions of warmth and enjoyment, with positive responses, seemed to be most useful to the children. Children with behaviour problems had mothers who used less of a positive style and their play was more likely to end up in a fight. The authors also thought that the timing of intervention was important. Proactive strategies that track children's behaviour and allow intervention early to prevent escalation of difficult behaviour were seen as helpful. Patterson (1994) has suggested that strategies used after a difficult event may paradoxically serve to reinforce difficult behaviour for example, negotiation, compromise or a cuddle.

Gardner (1992) and Campbell (1995) have both summarised the various factors, which contribute to the development of conduct disorder in children.

Parents' ability to anticipate difficult behaviour and track it to prevent escalation was most likely influenced by many factors, for example innate

parenting skills often learned from, and modelled on, the parents' own parenting as children.

Dowdney et al (1985) followed up 94 women, 14 years after they had been in care as children, in order to study their parenting as adults. The women had been placed in care because their own parents could not cope with child rearing, rather than because their children had presented with disturbed behaviour. A comparison group who had not been in care was also followed up into adulthood. These women had been picked randomly as children for another study (children in the same class as children with a mentally ill parent). 89 of the ex-care women were still alive, 81 were traced. From the comparison group 41 out of 51 women were traced and interviewed. 49 mothers in the ex-care group had children, with 42 of the children living at home. Only 16 women in the comparison group had children and 13 were interviewed and 14 were added from another control group. The interview used a non-schedule standardised approach, covering daily routine and behaviour of the child in depth. How mothers handled their child's behaviour was noted including the degree of maternal emotion and how she expressed it. 23 ex-care and 21 comparison mothers were observed with their children at home over two hours by following a schedule. Time sampling counted the frequencies of behaviour and recorded sequentially how the mother reacted to the child including verbal interactions. The women who had been in care were more likely to have had a baby before 19 years, with 18% of their children not being looked after by their own mothers. 35% of the "in care" mothers had had a transient or permanent breakdown with at least one of their children (none of the control group.) Mothers who had been in care were less likely to anticipate difficult behaviour and more likely to use confrontation in their handling of the infants rather than try to work round the children. They were also less sensitive to their children's cues and showed less warmth in their interacting with the children. The authors suggested that techniques to prevent confrontation were important in parenting and that was what these parents found most difficult.

Parental self-efficacy is important and the lack of it is often a contributing factor in the development of behaviour problems in children as the parents are less able to set, and carry through, good limit setting.

Parents who have felt unloved as children find it difficult to show affection towards their children and the children in turn perceive themselves to "be unloved"

In an interesting study 167 children and adolescents (85% of the total sample asked to take part) attending two psychiatric clinics (107), a private psychiatric clinic (11), a young offenders centre (23) and a local high school (26) were asked what their worst life experiences had been. 37% of them said abuse by parent or others, 32% family break up, 32.7% charged with a crime, 16.7% beaten up by peers (the respondents were allowed more than one choice). The extent of the abuse experienced correlated with poor parental care. The parents of children, who had been abused, were more likely to be immature with poor parenting skills, marital difficulties and have had an experience of a poor childhood themselves. The children cited the above reasons for their own abuse indicating that children are often very perceptive of their own parents' difficulties (Ney, 1986).

What is more worrying is that the children and young people in the above study were asked what they would become when they were adults and how did they think this would match with parental expectations: 18 children thought they would be criminals and 72% of them thought that their parents thought so too; only 23 thought they might be good parents but they thought only a fifth of their parents would agree.

Jenkins and Smith (1991) studied 119 families with children aged 9-12 years from a general population and found that overt parental conflict was related most strongly to children's emotional and behavioural problems. They used both mothers' and fathers' account of the children's symptoms.

Brems & Sohl (1995) asked parents to rate the parenting strategies they thought might be used with children described in vignettes. The findings

indicated that parents thought that the good child would receive lots of positive praise and talking strategies and the acting out child would receive more negative and ignoring interventions. In that study, low empathy found in the parents was linked with negative and ignoring strategies.

The use of inconsistent, ineffective control techniques, and aggressive disciplinary parenting strategies differentiated between the families of clinic referred children (14 mean age 8 (+/- 1.33 years) and non-referred, hyperactive boys (13, mean age 9+/- 1.25 years) (Woodward, Dowdney & Taylor, 1997). Children who were referred were not distinguished by their degree of hyperactivity, but on co-morbid characteristics of conduct disorder or oppositional behaviour including aggression and difficulty with peers. This was found also in a study by Johnston (2001) with parents from a “high oppositional” group of children with co-morbid ADHD reporting more negative, reactive and fewer positive parenting strategies than parents with children in a “low oppositional” group.

Donenberg and Baker (1993) recruited a community sample of young children with problems (22 boys with externalising problems (acting out behaviour e.g. aggression, temper tantrums), 22 children with Autism, 20 from a clinic sample and 22 with no significant problems recruited from the community. The children were aged 3.5 years to 6 years (mean age 4.9 years). They compared them on several features of family functioning. They used several questionnaires: the Family Impact Questionnaire, which the authors trialed, (which looks at the impact the child has on the family functioning and the marriage), the Parent Stress Inventory, 101 items (Abidin,1990) (which looks at two domains, a child domain reflecting child characteristics that make it difficult to fulfil the parenting role, and a parent domain (which looks at stress as a consequence of parental functioning), the Dyadic Adjustment Scale DAS (Spanner,1976) (which has 32 items summed to a total score and is a questionnaire examining the quality of the marriage), a Parenting Events Score (Cronic & Greenberg,1990) (which has a hassles score which looks at domains of parental stress, social situations, cost of the child to the parent, effect of the child on the marital relationship and effect on other children in the family), the Beck Depression Inventory (BDI) (Beck, Ward, Mendelson,

Mock & Erbaugh, 1961) (a 21 item inventory which assesses cognitive, affective, and somatic dimensions of depression and sums to a total score), the Parent Sense of Competency Scale (Johnston & Mash, 1989) (which looks at two dimensions, efficacy, the perceived skills and knowledge about being a parent and Satisfaction, the value and comfort in the parenting role).

Families with children who had externalising problems reported more stress, more negative impact on social life, more negative and less positive feelings about their child and higher child related stress. They also reported less efficacy and satisfaction in their parenting role. Parents of children with externalising behaviour reported equally as high levels of stress as parents of children with Autism. On broad measures of parental and marital well-being the three groups did not differ.

The nurturing that parents themselves have had as a child will determine their ability to parent and make supportive relationships. Fraiberg and colleagues (1984) described the "working models" of mothers who have had a difficult childhood and suggest that children will begin to represent "Ghosts from the Nursery" for the mothers. The mother faced with a defiant child may have a "flashback" to a time where she was faced with an angry parent who paralysed her with fright. This might make it impossible for her to believe that she was empowered to parent her child with clear limits. Being paralysed by flashbacks might also occur if the parent had a particularly violent relationship with the child's father or mother. If child had had a difficult temperament the parent-child relationship might be even more fraught.

Frommer and O'Shea (1973a; 1973b) identified vulnerable mothers in pregnancy. They screened all mothers attending their first antenatal visit at the clinic in their local obstetric unit. They picked two factors known to be markers for psychological vulnerability: separation from one or both parents before 11 years because of death or separation because the child or a parent had left the parental home. There were 40 mothers in the "vulnerable group"

and 39 mothers in the “non-vulnerable group”. The mothers in each group were matched by age and social class..

The mothers were interviewed by interviewers “blind” to the group status of the mothers. Interviews took place following the birth of the child at 2-3 months, 6-7 months, 9-10 months, and about 13 months. At 13 months, all the mothers were re-interviewed, 40 mothers in the “vulnerable group” and 39 in the control group. Mothers in the “vulnerable group” were more likely to rate their child as having feeding problems (17% v 5%); 45% gave up breast feeding (v 29%); “propping baby” with a bottle was more likely to occur at all ages in the vulnerable group (a measure of less interaction with the child over feeding); 20% (v 10%) had a major depression; more mothers in the “vulnerable group” were pregnant again; more of their marriages had problems including sexual difficulties. Very few mothers in the “vulnerable group” were in touch with statutory services for help. The authors suggested that screening in pregnancy by asking about the pregnant women’s own parenting background might alert professionals to those women who might require more support after the birth.

For example one of the issues highlighted in other studies of mothers was the effect of their own parenting in childhood on their ability to feel positive about parenting itself and their own personal abilities as a parent. It might be for example that a positive parenting experiencing was a protective factor in preventing the development of depression as conversely a poor parenting experience was a predictive factor for depression (Frommer & O’Shea, 1973a).

Many women feel non-empowered to change their position and have chronic life stresses. In many marriages women do not see themselves as equal with equal “voting rights”, for example decisions about money, where they go on holiday or even what they watch on television. Many women cannot leave a battering husband because of the lack of ability to be financially independent. Yet in most relationships it will be the women who would do most of the nurturing of the children. Even in the most equal of marriages it is women

who take time off work if a child is ill. Society has expected women to do this nurturing even when they might feel dis-enfranchised themselves.

Thus to effect change, women will need to feel empowered and in a clinical setting this might have to be addressed first. Individual work with mothers, on their own childhoods, might have to be offered first, if the parenting they have had as child had left them feeling non competent in the parenting role. This work would have to proceed before working on specific parenting issues with a difficult child.

b) *Sibling relationships* and their effect on child development are complex and have been researched by Dunn and summarised in a useful article Dunn (1988). She suggested that it was important for siblings to resolve angry feelings at home. If they do not she suggested that this anger may spill over into school. Practising conciliatory tactics and positive use of negotiating skills at home helped future peer relationships in children at school. Younger siblings were influenced by older and may take them as role models. The different approaches mothers made towards the different siblings may modify difficult behaviour or make it worse depending whether each sibling perceived them as fair and appropriate.

c) *Culture* influenced how parents and professionals viewed children's behaviour and would effect whether the child's behaviour was severe enough to necessitate referral for help. Referrals from Medical practitioners in the USA to mental health services for children were more likely to be from families of lower social classes and from the black population (Maas, 1955). Weisz et al (1991), using vignettes, compared the views of urban and rural Thai teachers and parents with American teachers and parents as to whether they would rate children presenting with under-controlled problems (e.g. lying, stealing, aggression and temper tantrums), as more serious, than over-controlled problems (e.g. sadness, depression and anxiety), and which problems would be more likely to be referred. The findings suggested that, in keeping with their religious beliefs, Thai adults were less likely to be

concerned at children's behaviour as they saw it in "a life context". They were as likely to view over-controlled children as a problem as under-controlled.

d) Age of mother Age of the parent is also important. Wadsworth et al (1984) studied a sub sample of the Child Health and Education Study. This was a study of the health of infants (and their mothers) at birth and during the first week of life. The study consisted of 17,588 children of all births born during one week (5-11th April, 1970)). The authors specifically looked at the information on young teenage mothers who were under 20 years when the first child was born and looked again at the families around the child's fifth birthday. They compared the children from young mothers with singleton children born to older mothers. Teenage mothering was associated with low economic status as reflected by the social index, lower standard of household furnishings and equipment, as rated by the health visitor (an index of the family financial state), greater likelihood of another pregnancy, smoking, lower birth weight, reduced likelihood of breastfeeding, more younger siblings when the child was five and lower maternal weight. The children of young mothers did less well on studies of vocabulary and behaviour at 5 years. They were also shorter on average and had a smaller head circumference.

e) Poverty was found to affect all aspects of children's health, physical growth and well being, number of childhood accidents, and emotional well being through the effects of chronic disadvantage on housing, food, clothes, opportunities and stress (Wise,1998: Child Poverty Action Group,1998). Shaw & Vondra (1993) recruited 144 infants between 6 and 11 months and their parents, all of whom were on a low income. Parents were paid to take part. 129 (90%) parents agreed to be interviewed. The parents were asked to fill in questionnaires about their child's behaviour, family life and their own adjustment to motherhood and also the BDI (a measure of maternal depression (Beck et al,1961)). When their children were 12 months old, 104 (81%) parents agreed to be re-interviewed. Their infant's development was assessed and the parent-child dyads were observed in the laboratory on parent-child interaction tasks (4 subjects were withdrawn because of missing data or income status). Family stressors included parental criminality, maternal

depressive symptoms, maternal personality disorders, overcrowding in the home and the quality of the relationship with a significant other. Cumulative family adversity was found to differentiate secure from non-secure infants, but only amongst families with 3 or 4 stressors present. Stressors correlated with maternal functioning were more common among families with insecure infants. It appeared likely that parenting and thus child development was most compromised when personal adjustment problems form the core around which multiple individual and interpersonal stressors accumulate.

f) Environment: Housing: persistence of behaviour problems in childhood was been found to be influenced by social factors e.g. housing and overcrowding (Richman,Stevenson & Graham,1982)

g) Single parenthood: Roberts (1995) has written a useful review. The highest percentage of lone-parents in any European country was in Britain. Twenty one percent of parents in Britain were lone-parents, of which 90% were lone mothers. Thirty percent of babies were borne outside marriage although many were jointly registered The effect this would have on the children would depend on the circumstances. Many single parents were unemployed, with poor incomes, living in overcrowded circumstances often with their own family of origin. Madge (1983) studied a sub sample of the Child Health and Education Study. In 1975 12,743 children were contacted from an eligible 16,015 from the birth study (76.6%) at the time of the child's fifth birthday. Single mothers were over sampled so it was not a random sample of the original sample. Children of single parents fared worse on all measures of social variables and they were usually living in poorer areas. The mothers reported higher scores for poor behaviour in their children.

If divorce were the reason for the mother being single, then the effect of the divorce and the reasons for it would also have to be considered. Wallerstein (1991) has written a useful review. The effect of "ghost" fathers on children and the effect of multiple partners would need also to be factored in.

h) Marital break-up: Hartnup (1996) summarised research on the effect of divorce on children. In Britain one in three marriages ended in divorce and 1/5 to 1/6 children below 16 years of age would be affected. He pointed out that the divorce itself cannot be separated out from a host of associated and sequential consequences which may take place, marital conflict, including at times physical and sexual violence, sometimes directly involving children, separation involving permanent or partial loss of a parent, changed social and financial circumstances, single parenthood, court battles over maintenance and access, reconstituted families (bringing one or two step-parents and possibly step-siblings into the picture and eventually children of the new union). He suggested that from the child's point of view divorce should be seen as potentially cumulative trauma. There might be long-term effects from high conflict in the home, which had lasted for years. Marital conflict has been highlighted by many workers as potentially important for the development and maintenance of behaviour problems in childhood. In a study of 4 year olds (Hetherington, Stanley-Hagan, Anderson, 1989) the period after divorce was found to be a period of high irritability in parent- child relationships with less attention to children's needs and less consistency in parenting tasks and discipline. Wallerstein (1991) studied adolescents 15 years after a divorce and found that the young people still had ill effects after the divorce, often in the realms of personal relationships, with difficulties in forming trusting relationships. The children had perceived the divorce as a loss and she suggested that the future relating of the adolescent in adult relationships might be harder.

The relationships in step families and children's adjustment was summarised recently by Dunn et al (1999). She suggested that children in step families had a higher than expected incidence of problems with social relationships, health problems and internalising and externalising problems. She stated that the variability in the effects of growing up in step families, however, was striking and the effect would depend on many factors, the number of transitions in parenting, the relationship with the non-custodial parent, the effect of the previous marital conflict before the divorce and the variations of parenting

style of the new parent dyad. The temperament of the child and the age of the child would also influence outcome.

i) Mental illness in parents

Psychosis

The effect of a psychotic illness in a parent on a child can be devastating due to its unpredictable course, the effect of the illness on the parent's ability to look after himself or his children and the fact that there might be frequent stays in hospital causing separation from the child. If the illness were fluctuating, poor employment records often lead to unemployment, with the resultant effect of a slide down the social scale with the possibilities of poverty, homelessness and frequent moves (Kendell et al, 1987). In a Lambeth study of women with serious, chronic mental illness, 60% of the mothers had children below 16 years of age and 25% had children below 5 years of age (Iddamalagoda & Winokor,1993).

Depression

Aetiology of depression

Depression is the most common mental health problem in adults. Studies of depression in community samples of mothers of young children have found the prevalence to be 10 -40% depending on the age of the child (Brown & Harris,1978; Richman, Stevenson & Graham, 1982; Cox, Holden & Sagovsky, 1987; Cox, Murray & Chapman,1993).

Pitt (1968) described depression following childbirth in 10% of mothers from a community sample, and in 4% of the mothers the depression continued for over one year. Nott (1987) found similar percentages of depression in a Southampton sample of postnatal mothers and the depression continued also through the first year.

Brown and Harris (1978) studied depression in their seminal study of 458 women (aged between 18 and 65 years) randomly chosen from the local authority household register set up for the collection of Rates in the London Borough of Camberwell. 83% of the women were interviewed using various

questionnaires including the Present State Examination, a standardised interview schedule, which can indicate whether a patient might be deemed to have a psychiatric disorder (in all positive cases the mother was interviewed by a psychiatrist) and a Life Events Interview developed for the survey, which looked at the seriousness of the event as well as the meaning of the event to the mother.

The authors found that 16% of women were depressed, 23% of those who were depressed were working class and only 5% middle class. Rates were four times higher for working class than middle class mothers. Mothers, who had children under 6 living at home had the highest rates (31%). For similar middle class mothers the figure was only 6%. Working class mothers also had more chronic serious life events; unemployment, ill health, financial problems and housing difficulties. This made them 4 times more likely to develop a depression than middle class mothers (31% v 8 %). The authors summarised the four main vulnerability factors for depression in mothers as: loss of a mother before the age of 11 years, presence of three or more children aged less than 14 years, lack of a confiding relationship with a husband and lack of full-time or part-time employment.

In the above study accidents in the home to children under 15 years (accidents requiring treatment by a general practitioner or casualty department) were more likely to occur in families where the mother was depressed, and this was particular true of working class families (19.2% in working class families, 9.6% of non-depressed working class women) (5.3% of middle class women who were depressed, and 1.5% of non-depressed middle class women in this population of families), (9.5% in the group as a whole). These accidents occurred to children across the age group.

Andrews, Brown & Creasey (1990) followed up a sub-sample of these mothers, who had daughters, eight years after the original project. The authors wished to establish whether there was a link between psychiatric caseness in mothers and psychiatric caseness in daughters in the previous 12 months, which could be linked to mothers' depression in the daughters' lifetime. 125

(43%) of the original 289 of mothers were still available for interview. 25 (20%) refused to be interviewed, 5 (4%) were untraceable. 95 were interviewed. The mothers who were interviewed did not differ in the rates of depression from those that were not interviewed from the original sample (28% v 31%). There was a possible pool of 134 daughters aged between 15 and 25 years at the time of follow up. Maternal permission was sought (9(7%) mothers did not give permission 39 (29%) did not keep appointments or refused to be interviewed,

76 children of 59 mothers were seen (one interview incomplete). There were no statistical difference between the daughters seen and those not see in demographical terms or in rates of depression in the mothers. The daughters of the smaller group of mothers who had refused permission for their daughters to be contacted were more likely to have a mother with a chronic or recurrent disorder 67% (6/9) compared with 25% (29/115) than the other daughters whether seen or not. 30/75 daughters also had sisters in the study.

Daughters and mothers were seen by different interviewers. A shortened form of the PSE (Cooper et al, 1977) was used. A psychiatric history was taken from the mother to cover the whole of their daughters' childhood. The daughters were asked about their experience of parenting by both parents, covering the quality of care, and parenting concern about their activities including progress at school, the quality of discipline and control of their behaviour by the parents; the quality of the mothers parenting and any hostile relating, these factors gave an index of early inadequate parenting. The daughters were asked to report any form of child abuse. Both child abuse experiences and early inadequate parenting gave an index of early adverse family experiences.

Only mothers with a chronic or recurrent disorder had a daughter with a case disorder. Daughters with those mothers were 3 times more likely to report at least one adverse experiences. For 11/14 daughters who reported repeated sexual or physical abuse a father or a step-father was involved. Poor

mothering and poor fathering was usually reported. The mental illness in the mothers was usually reported as occurring before the adverse events.

In support of this study Gavron (1966) found a higher expectancy of satisfaction from marriage and child rearing in working class women compared with their middle class counterparts, but the working class mothers seemed unprepared for their role. This was compounded by their comparative youth. The way women coped with their social group seemed to be important. Those who had adverse relationships were more likely to have adverse relationships with their own children.

Does psychiatric illness in a parent affect the ability of a parent to successfully parent a child?

Cooper, Leach, Storer & Tonge (1977) assessed 43 children of school age, offspring of consecutive referrals to a psychiatric outpatients (26 adult psychiatric patients (10 men and 16 women), (7 adults refused to be interviewed)) and compared them with 47 children of control families (24 families). The adults were interviewed and a home visit was made. The parents filled in the General Health Questionnaire (Goldberg, 1978), were asked about problems with the children and asked about marital and sexual problems. The children were interviewed, without their parents, in the psychiatric hospital outpatient department using a standardised interview (Graham & Rutter, 1968). 19 (45%) children of parents with a psychiatric disorder had a psychiatric disorder compared with 12 (26%) of children from the control families. Only 5 had been referred for psychiatric help. The families, where there was psychiatric disorder in the parents, were more likely to: experience marital discord and a diagnosis of personality disorder in the parents and to have a father who had difficulty with tolerating angry situations. The families where there was a parental psychiatric illness were more likely to have siblings under 9 years of age. On follow up six months later, 9 of the 19 children had improved considerably and this was associated with improvement in the condition of the parents.

Quinton, Rutter and Gulliver (1990) studied 137 parents who were patients (a random sample of the population in Camberwell attending a psychiatric unit) and compared them with a random cross sectional sample of parents living in Camberwell and followed them up for four years. The quality of the parent's interaction with the children was as good in the patient group as the non-patient group. There was no statistical difference in the children's behaviour problems at the psychiatric interview of the children by a poor diagnosis of psychiatric disorder in the parents, but there was a significant increase in children's poor behaviour if one or both parents also had a personality disorder, (38% v 7% for parents with an affective disorder; (38% v 6%) if the parent had a psychotic illness). The child would be more likely to be affected if the psychiatric illness involved the child, for example in the mother's delusional system, or caused the child to be the target for hostile behaviour or neglect. The risk was worse if the illness was chronic or recurrent. Like other authors they found that the presence of a high number of adverse associated concomitants added to the stress e.g. poor housing or poverty. The presence of a high level of irritability in either one or both parent predicted problems with the parent-child relationship.

Depression in mothers was been linked in several studies, to both difficulties for parents in relating with children and the persistence of behaviour problems throughout childhood, for example Richman, Stevenson and Graham,(1982). Ghodisan, Zajicek and Wolkind(1984) followed up mothers who had been diagnosed as having a postnatal depression and admitted to hospital, from the birth of the child for two and half years at various time points. Behaviour problems were found in the children at 2 ½years, if the mother had been depressed at 14 months and had added stresses for example another child and overcrowding at home. 10% of these mothers were depressed throughout the first 2 ½ years of their children's lives (Wolkind, Zajicek,Ghodsian,1980).

Depression in mothers influences how they interact with their children. Children responded to a depressed mothers' face, with distress. Field (1984) Video-taped 12 depressed mothers referred from the obstetric wards who had a score of 16 or above on the BDI and 12 non-depressed mothers (score on the

BDI of 4 or less) matched on age, social class and level of education. The mothers were video-taped in 3 face to face interactions with their baby for 3 minutes. On the first occasion the mothers were asked to play normally, on the second to play as if it were on a day when they were depressed, and then for the last time to play as well as they could. The tapes were coded by observers blind to the status of the mother and coding inter-reliability was checked. The babies' heart beat and activity was measured. Over all, the non-depressed mothers used more frequent positive facial expressions, with less frequent negative expressions, more frequent vocalisations and greater time looking at the infant and providing tactile sensations. Their heartbeats were higher and they were more active. In the depressed situation they reacted with more negative behaviour. The only repeated measure effect in the group behaviour of the mothers in the three research conditions was that the non-depressed mothers used more touch stimulation in the depressed situation.

The infants, however, reacted differently. The author suggested that infants of depressed mothers had grown used to their mothers' behaviour, while infants of depressed mothers complained if their mother was not "available" to them, i.e. in the "depressed" part of the video-taping, and this spilled over into the last, reunion session. The infants of depressed mothers mirrored their mothers' behaviour as they might have thought that they had no control over their mothers, unlike the infants of non-depressed mothers, who protested at their mothers expression and continued to be cross when they returned to "normal".

Cox et al (1987) found in their focused work on the interactions of 49 depressed mother- child dyads (the children were 2 years old) and 27 controls, with 10 second time sampling, that many depressed mothers, (PSE, Wing et al, 1967); 80% of the depressed mothers had attended a psychiatrist at some point compared with 11% of the control group) although very good at the physical care of their children and often warm in their relating to them, responded poorly to the cues of both distress and regard, which their children gave them. There was also an increase in the maternal level of criticism. This resulted in poor development of the "links" between mother and child, which were considered necessary to develop language and interaction skills. This inability

to respond to the child's cues could contribute to the finding of poor attachment of some of these children to their mothers. However, the authors stressed, that many depressed mothers did have sound healthy relationships with their children.

The mothers, who were depressed, reported that their children had more behaviour problems on interview (BSQ, Richman, Stevenson & Graham, 1982). 61% of the children had a marked disorder with half of the children however constantly trying to comfort the parent in the interview. When the mothers were followed up at 6 months one third of the mothers, whose depression had resolved, reported less behaviour problems (seven out of seventeen, 41.2%) but still more problems than the control mothers (three out of eleven children 27.3%). Sixteen children out of 30 (53.3%) from the group of mothers still depressed at six months still had behaviour problems.

Murray (1992) recruited a group of mothers who had had a baby with a weight over 2500 grams in a Cambridge Maternity unit. 702 women were approached and the Edinburgh Post Natal Scale (a scale which measures depressive symptoms (Cox, Holden & Sagovsky, 1987)) was administered by post at 5-6 weeks post- partum (return rate 97%). Mothers who were possible cases were interviewed using the Standardised Psychiatric interview ((Goldberg, 1978). The SPI was modified to detect episodes of depression meeting Research Diagnostic Criteria for minor (definite) or major depressive disorder (Spitzer, Endicot, & Robbins, 1978). 69 women were identified and 59 were willing to take part. 42 women were identified who had the same sex infant as a case mother and interviewed with the SPI to make sure they did not have a depression. Mean age of mothers was 29 years (SD 4), 65% were in social classes I,II,III non-manual and 47% had been educated to A level standard (they had been in education for at least 12 years).

A random sample of these mothers was interviewed between 8 to 11 weeks (mean 9.3 weeks SD 1 week) (15, who had developed a depression at the birth of her child;10, who had a depression prior to but not following the

birth; 14, who had a depression before and following the birth; 20 who had never had a depression). The authors found that, where mothers had had their first episode of depression after the birth of their child, that is to say the depression was "child centred", the relating to the child was poorer, even compared to the relating of those mothers who had been depressed before and after. If the mother had had a previous depression then their present depressive illness tended to last longer.

Murray and colleagues (1993) described depressed mothers' speech to their infants when the infants were two months old. The mothers were videoed playing with their infant. The mothers were divided into three groups, control mothers (20), depression before but not after (10 mothers) and depression after (including those that also had had a depression before) (29 mothers). The speech was analysed using an adaption of the adult-adult speech register of what the authors called "motherese" (the quality of speech: complexity, length of utterance, continuity of reference, syntax focus, sensitivity and focus on the child, agency to child and negative affect). The authors found that mother-child interactions in all groups tended to be short, infant centred, and often attributed agency to the infant. Negative comments were rare. However mothers who had had a depression post-partum were more negative in their speech to their infants, less sensitive, and less focussed, particularly, if their child was a boy.

The infant-mother pairs were studied again at 9 and 18 months (3 mothers were withdrawn from the control group and 3 mothers in the group who had a previous depression ante-partum (but none in the first 3 months) because all six had experienced a depression). The two aspects of speech that had been significant at the first interview (negative speech and focus of speech) were looked at and infant outcome on object concept tasks at nine months and at 18 months was entered as a binary variable, success or failure. Bayley Scales of mental development and object concept tests were also undertaken on the infants (Bayley, 1969). Mothers' social class and level of education, and the three different maternal groups were distinguished for the analyses.

Male infants in the groups with no post-partum depression scored higher on the Bayley Scales and the object tests than female infants, but the male infants in the post-partum depression group scored lower than the female infants. Higher results on the measurements of the mother's focus to the baby at 2 months were strongly associated to higher scores on the Bayley Scales and the object concept tests at 9 months. Mothers' negative speech to the infant as a baby, however, did not effect the results. The results on the two tests at 9 months strongly correlated to the results at 18 months, girls doing better than boys. Interestingly, infants of mothers of lower social class in the non-depressed group, did better than the mothers in the higher social classes. This was not true of the groups as a whole.

The authors go on to suggest, as others in the literature have, that the 2-3 month period is a critical time for the development of relationships by interaction through speech, taking turns in language utterances, and focussing on the infant with positive and negative regard.

A follow up study when these children were 5 years (Murray et al 1996) found that the quality of speech, and thus the quality of interaction when the child was a baby, was related to outcome on tests of intelligence at school. This, however, was mediated through the results of the 18 month tests. Thus the children who did badly at 5 years were confined to those who had had poor speech interaction with their mother at 2 months and had performed less well than their peers at 18 months.

Radke-Yarrow, Cummings, Kuczynski and Chapman (1985) in their study of 2 and 3 year old children in normal families and in families where mothers were depressed, showed the children of depressed mothers to be more insecurely attached in the "Ainsworth strange situation test"(Ainsworth & Wittig, 1969). This test was a measure of the child's ability to separate and stay with a stranger. The child was rated on his behaviour on separation, how he coped during the time apart and how he resumed interaction with his mother on return. The way the mother handled the separation was rated also. In this study, the insecurity of the children of depressed mothers was linked to the mother's inter-actional style. The mothers who were depressed expressed

more negative and less positive affect in interaction with the child, presumably making it less easy for the child to separate and cope with the separation and return. It could also be postulated that these children had not made secure links with their mother to begin with.

The affect of maternal depression may be mediated by several factors and the depression may not act directly. Factors may act additively and compound the effect of depression. For example, it has already been discussed how the presence of a high level of hostility in the home, as a result of parents under stress because of mental illness, may have an adverse effect on children present, (Quinton, Rutter & Gulliver, 1990). Other factors found to be possible causal or perpetuating factors have been: lack of a confiding relationship or social supports (Brown and Harris 1978); the youth of the mother (Wadsworth et al, 1984); poor self efficacy skills (Donenberg & Baker, 1993): poor self esteem and perception of poor mothering by their own mothers, (Frommer & O'Shea 1973a; 1973b); the environment, housing, especially high rise flats and overcrowding. The effect of unemployment for both mothers and fathers may have an effect directly or indirectly as already outlined (Richman et al, 1982; Brown & Harris, 1978).

However, Caplan et al (1989) found no clear link between post-natal depression and child behaviour problems at 4 years in a study of 99 mother-child pairs. However, behaviour problems (Behavior Screening Questionnaire, (Richman, Stevenson & Graham, 1982)) and lower scores on the McCarthy scales (I.Q. scales) (McCarthy, 1972) were more likely to be found if there had been marital discord in pregnancy, previous, paternal, psychiatric problems and if mothers were concurrently depressed (depression was defined as referral to a G.P. and or a psychiatrist).

Wrate et al, 1985 found no link also with behaviour problems (Behaviour Screening Questionnaire, (Richman, Stevenson & Graham, 1982)) in three year old children where their mother had had a prolonged post natal depression. However, where there had been a brief period of a post natal depression he did

find an increase of behaviour problems in children compared with children whose mothers who had not been depressed since the baby was born.

However there would appear to be enough evidence that having a depressed mother in the formative years would be likely to have some detrimental effects on the emotional and psychological well being of the child.

The exact mechanism of how maternal depression affects children remains unclear, but various possibilities have been suggested. Cox et al (1987), as already reported, have suggested that depressed mothers were less sensitively tuned in their responses to the child and that these children were more distressed and showed more emotional and behavioural disturbance as well, as a delay in expressive language development, at the time of the original study and on follow up. However, as outlined already, there are other important factors to be considered, such as the marital relationship, the mothers' own parenting experiences, the effect on the parents of poor housing and socio-economic stresses, and these may themselves influence, directly, the child's emotional well being through, for example, high levels of hostility in the home (Quinton, Rutter & Gulliver, 1990). or high levels of maternal criticism, the single most predictive factor for child disturbance in the study of Richman, Stevenson & Graham (1982).

Nicol et al (1987) from their study of a community sample of 3 year old children and their mothers found that although many mothers would not meet the criteria for clinical depression, many had profound symptoms of sadness and tiredness and felt they were not coping with their children. The children of these mothers had significant behaviour problems. The authors stressed that this group of mothers would not be accepted by mental health teams for support, as they did not warrant a psychiatric diagnosis but their children were at risk. They recommended that health professionals working with young children were aware of the morbidity in mothers of young children and set up mechanisms for recognising them in the community.

Downey and Coyne (1999) have written a useful review of the various factors to be considered in the effect of depression in parents on young children.

As well as poor mental health, some parents might have an Attention Deficit Hyperactivity Disorder. The symptoms in adults were similar to children with poor organisational skills, poor memory, problems at work and impulsivity. This could contribute to a poor memory for appointments, inconsistency in using parental strategies and poor ability to use delay of gratification over frustration, a factor often prevalent in families where child abuse takes place (Ney, Fung & Wickett, 1992). 1-4% to 2-7% of adults were found to have ADHD as adults (Wender, 1995; Biederman et al 1993). This often presented with concomitant, severe co-morbid anxiety, substance abuse and depression. Of 149 consecutive adult admissions to an anxiety clinic 15% met criteria for ADHD using the Wender Utah Rating Scale (4% by chance) (Mancini, Van Amerigan, Oakman & Figueredo, 1999). It was interesting to note that stimulants did seem to be effective in 25% to 78% adults (Wilens et al 1995).

Drug abuse in parents can lead to developmental problems in their infants (van Baar, 1990) as can excess alcohol (Rydelius, 1997; von Knorring, 1991). Children of drinkers may be understimulated (Graham, 1996).

The Foetal alcohol syndrome occurs if there is excessive intake during pregnancy especially in the first trimester. Morphological deficits are found in the children, especially facial, and deficits in psychosocial development. Even with a daily intake of 4 units a day in pregnancy, a decrease of 7 points on the Macarthur scales in infants can be found. The prevalence of the foetal alcohol syndrome is 2/1000 per births in the USA and 0.01/1000 in the UK. A useful review has been written by Cooper (1987).

Excess alcohol could lead to violence by mothers toward their infants and was found to be a cause for one out of eight cases of child abuse, and, where 2 children have been abused, one of three cases. The British crime survey (in Mirrlees-Black, Budd & Partridge (1998) found that in 500,000 cases of violence in the UK, 39% of the offenders were drunk. Violence in the family was also found. Much of this violence had been witnessed by children and it

was a risk factor for future problems in children especially in boys (National Children's Homes Action for Children 1994).

In early childhood children, who were victimised by violence, were thought to be at an increased risk of becoming delinquent and perpetrating violent criminal behaviour in adulthood (Widom, 1999). It is likely however that to moderate the effects of violence on children a multi-modal approach is necessary tackling family relationships, alcohol and drug abuse, as well as looking at the influence of schools (Sylva, 1994) and bullying (Whitney & Smith, 1993), the attitude of society to violence, the media, and the affect of computer games (Graham 1996).

Parents who have learning problems might have difficulty parenting. Feldman (1986) suggested that young children of retarded parents were at risk of developmental delay. Child mental development was related to the quality of maternal interactions and parents with learning difficulties could be deficient in providing stimulating interactions during play, particularly with respect to praising appropriate child behaviour and imitating child vocalisations. He and colleagues set up a training programme to assess the effect on children's language development. It was a small study working with 7 mothers (IQ range 64-77). They looked at praising, talking, watching the child, imitating child vocalisations and prompting play and child vocalisations. He found, that with an intensive programme, which used a repetitive learning approach, parents could learn those skill and these skills were maintained over a 5-10 month follow up period.

j) How parents "view" their child is important

How parents attribute the cause for their child's problems was important and this was particularly relevant for the parents of hyperactive children (Barkley et. al, 1990; Schachar, 1991).

Parents form their own "working models "of their children and develop their own interactive "model" in dealing with them; sometimes this will be helpful,

but sometimes not. Smith et al (1985) described "mothers' models", with normal and handicapped children and how the mother's expectations of behaviour developed into a "self fulfilling prophecy".

Mothers of a community sample of seven year old boys with severe hyperactivity (measured using the Parental Account of Children's Symptoms (Taylor et al,1991) which gave an ICD-10 diagnosis) were interviewed and the level of criticism that the mothers expressed in the interview was rated. On follow up of these boys at adolescence high levels of expressed maternal criticism when the boys were seven years of age correlated with the presence of anti-social behaviour in the adolescents (Taylor et al,1991)

Factors in the child

a) Neonatal difficulties Lukeman & Melvin (1993) reviewed the literature and found that neonatal difficulties and very low birth weight (<1,500g) were associated with cognitive deficits on follow up at school age with around 60% of the children requiring education in special schools. Astubury, Orgill, Bajuk and Yu (1983) found in their study that very low birth weight was associated with hyperactivity in children at 2 years compared with a matched sample of children with normal births. This hyperactivity present at 2 years predicted level of cognitive functioning at 5 years. Szatmari, Saigal, Rosenbaum, Campbell and King (1993) found that extremely low birth weight (<1,000g) in girls was linked to hyperactivity in girls, on follow up to age 7 years, compared with a matched sample of normal births. Sykes et al (1997) found attention problems on follow up to age 7 years of both boys and girls with very low birth weight, with the boys showing also aggressive behaviour and the girls withdrawn behaviour. The authors postulate that these findings would not constitute a definition of ADHD but considered that the children had a problem with the development of self-regulation.

However, how a mother responds to her infant could affect the outcome for low birth weight babies. Smith et al (1996) studied a group of very low birth weight babies at low risk and a group at high risk and compared them both to normal "full term" control group. Higher levels of maternal attention-

maintaining were positively related to infant development for all groups of children, but in particular to expressive language development for the high risk infants. When observed through toy play and daily activities, the quality of maternal behaviour was more strongly related to the pre-term group to which the child belonged. The authors concluded that low birth weight babies needed more specialised support during the early part of the first year of life than full term infants, to help them organise responses at a time when the babies would be having the greatest difficulty in developing the skills of attention. They also suggested that specific maternal strategies which helped infants maintain their attentional focus were important in the development of cognitive and language skills in the first year of life. It was found also that the ability to cue into the infant and follow the infant cues was important.

Landry et al (1996) found that maternal warmth correlated with attention maintaining style, but neither maternal warmth nor directive style predicted cognitive or language function in his group of low birth weight infants.

For many mothers parenting can be difficult anyway, and therefore anything that might jeopardise that, for example the various stressful experiences that surrounded having a sick child, or a child who was separated from the mother initially at birth because of illness might well compound the difficulty.

A premature birth might be a crisis for parents. A difficult birth might be "blamed" on the child, thus starting the early interaction between mother and child with hostile and angry thoughts. The mother might, however, blame herself if things went wrong. She might view this as yet more proof of her own inherent worthlessness and indeed feel that she was a "bad person", and it had all been her fault. This would be particularly true for mothers with poor self-esteem. This, of course, would be compounded should the mother have a very sick or handicapped child.

Separation from her baby because he was too small, might remind the mother of her own feelings of abandonment and rejection when she was a small child.

Parents, understandably, will expect to have a normal pregnancy and a healthy baby at the end of it. Should the length of pregnancy be unexpectedly shortened the parents, especially the mother, will be required to make an emotional adjustment. The mother was nurturing the baby, and she would have begun to prepare herself emotionally for the coming birth, "the nesting instinct". Should the baby arrive early, the mother might feel cheated of these extra weeks preparation time. The mother might not have stopped work, nor have bought any baby clothes or prepared the nursery. She might feel guilty or angry that this preparation time had not been possible.

Many authors e.g. (Caplan, Mason & Kaplan (1965) have described the tasks that parents have to go through in order for them to begin to relate to a premature baby. Parents might have to grieve the loss of some of the pregnancy and of "the normal child", cope with guilt, anger and feelings of failure; but at the same time hold back emotionally, in order to do some "anticipatory grieving work" in case the child might die. Through all this work they have to try to accept the child they have and the situation they find themselves in. Parents will go through these processes at different stages and this will be true "within couples" too. Some parents would be more ready to "risk" relating to the child and begin the task of making a relationship, touching stroking and caretaking, when the child was ready for this. Others might find this far harder and need a lot of support and encouragement. Parents cope in many different ways; some withdrawing from the baby to protect themselves (Siegel, 1982); some with guilt, shame, anger, failure (Jeffcoate, 1979); some with reduced feelings of competency and uncertainty of their role, sometimes requiring to seek permission to touch or feed their baby.

It is very important that the birth of a premature baby is marked with the same ritual as term births with presents and cards, (unless the parents have stated that they did not wish this) in order to "validate" the birth for the parents.

Klaus et al (1986) highlighted encouragement of mothers to have early contact with the babies, and went on to suggest the concept of "a critical period" for

relating to babies. They also stressed that parents should have time to discuss the situation they find themselves in, in order to grieve and share the experience. This would have the effect of preventing the "Hangover Effect" of remembered negative thoughts, which may prevent the parent in moving forward to the "acceptance stage" of their baby. The authors stressed also the importance of working with both parents and that the parents might deal with the situation differently and at different rates of resolution.

b) Temperament: temperament in children was first highlighted as being an important attribute to consider in child development in the New York Longitudinal study (Thomas Chess & Birch, 1968). The authors described 9 dimensions of temperament which would be context free: activity level; regularity of biological functions; approach or withdrawal tendencies to new situations; adaptability to change; sensory threshold; quality of mood (whether predominantly positive or negative); distractibility; and a combined category of persistence and attention span.

Thomas and his colleagues' work on temperament has been developed further by Buss and Plomin, with the development of a 4 dimensional scale: Emotionality, (shows high degree of distress and intensely demonstrates fear and anger); Activity (gross 'on the go' activity), Shyness and Sociability (prefers others to being alone; ability to share and co-operate). To be considered present these traits must appear first in infancy and be continuous, and they are, in part, genetically determined (Buss & Plomin, 1984).

Thomas, Chess, and Birch (1968) emphasised that the way the child's temperament will influence the child's behaviour will be by a "Goodness of Fit" model with contributions from parents, other adults and children and the environment.

Simpson and Stevenson-Hinde (1985) looked at interaction with temperament and children's behaviour, studying boys and girls separately so as to look at the contribution of gender. Children were assessed at 42 months of age and followed up at 50 months of age. All the children had a mother, father and one sibling aged from 16 months to 7 years. Twenty six boys and girls were

assessed at 42 months, and 24 at 50 months. All were from the same Cambridge, England, village. The characteristics looked at were shy (approach/withdrawal: not settling in) and moody/intense. Mothers were visited at home and asked about their children's characteristics (with a temperament interview adapted from the work of Thomas & Chess (1977) and Garside et al. (1975), their children's behaviour and their own interactions with their children (relationship interview with a description of the child's behaviour and family interactions). Observations of the mother with her child also took place and was rated on a 7-point scale with two areas being targeted, 'mother's sensitivity to child' and 'mother enjoys child'.

The temperamental characteristics in the children were consistent from 42 months to 50 months for both sexes. Both boys and girls with moody, intense scores were more likely to have mild behaviour problems and negative family interactions. Shy scores in boys were associated with negative family interactions, while shy scores in girls were associated with positive interactions, especially at the later age of 50 months. Activity levels of children in this study did not show particular correlation with children's behaviour.

Wolkind, Zajicek & Ghodsian (1980) found that children who showed early temperamental extremes, either very quiet and withdrawn or very excitable, were more likely to have behaviour problems at 42 months if the mother was concurrently depressed.

Equally important, the presence of an "easy temperament" in children in the long-term follow up study to their second decade of 698 multi-racial children on the island of Kauai, correlated with those children as adults having better educational results and job opportunities and more successful relationships (Werner, 1985). This positive temperament and also good problem solving skills protected the children from the effects of poverty and difficult family relationships. The more resilient youths had an internal locus of control indicating an ability to take responsibility for their own actions.

Garmezy (1985) summarized the concepts to be considered in looking for factors which protect children from stress. As one can imagine they are the positive features, which lead to good emotional health, with an absence of negative features i.e. easy temperament, good physical health in children and parents, parental warmth, stable families, absence of too many negative life events, a good level of functional income, good quality housing, well structured play groups or schools. Girls seemed less vulnerable to stress than boys.

Some children cope remarkably well with negative life events, death, loss of a parent or change of school. However life events have an additive effect especially if there are too many adverse life events, or if they happen with little time in between to recover with few supports to enable the child to cope with them sufficiently well at the time (Goodyer, 1990). The effect of negative life events will be compounded if the parents themselves are not coping and are not "available" for the child. Positive life events can also protect and may cancel out the effect of a negative life event, for example, moving school, but then making a good friend as a support.

Recent literature suggests that there might be predictive markers in childhood for ongoing problems through childhood, adolescence and adulthood. Pervasive hyperactivity (Taylor, Sandberg, Thorley and Giles, 1991) was related to ongoing problems of inattention, overactivity, lower IQ and cognitive delay in a community sample of 7 year old boys. Children who were overactive were more likely to develop secondary behaviour problems. However as previous literature did not define the cluster of symptoms referred to when "hyperactive children" were followed up to adolescence, it has not been clear whether it was the hyperactivity per se which led to difficulties or the accompanying conduct disorder. Mannuzza, Klein, Konig & Giampino (1990) in their prospective follow up of children with ADHD, found that there was an increased rate of arrest in adulthood, but this could be accounted for by the presence of anti-social behaviour in adolescence.

The age at which the anti-social behaviour first presents is also important. Robins (1966) linked the concomitant presence of hyperactivity with conduct disorder as being the factor, which made for a poor prognosis. She also pointed out that the number of symptoms that presented was important, the more symptoms being found at an early age, the worse the prognosis for the child.

Children who are hyperactive are difficult to parent and may present with co-morbid problems. In a series of interviews made for a teaching video, parents outlined some of the problems with their 8-12 year old children: "Takes over our life'.....'; I have got to devote all my time to him...'; ' he was excluded from school at 6 years'; 'he plays on the railway lines'...; 'she is always in the house....;'; ' she cannot go out to play with other children....;'; 'he has great difficulties at school...;'; 'he cannot read....;'" (Thompson, Laver-Bradbury, Weeks, 1999).

It would seem that hyperactivity was a risk factor because it increases the already difficult task of parenting in an organised manner. Also, many hyperactive children have accompanying cognitive difficulties with word processing, reading and often speech and language development. Impulsive children have problems with coping and with delay of gratification and this might lead to aggression and relationship difficulties with sibs and peers. Children with deficits in social cognitive processing might misconstrue the world as a difficult and hostile place, and this could lead to difficulties with peers and adults. This could lead to proactive aggression (a deliberate act towards a defined goal) and reactive aggression (a defensive response to a perpetuated act) (Dodge & Lochman,1994; Kazdin,1987).

Campbell (1987), using a clinic-based population, found that symptoms of both hyperactivity and aggression in three year old children as rated by the mothers, predicted severity of behaviour problems at the age of six.

Persistence of problems could be predicted by a negative mother-child interaction, (more maternal reprimands and directives); by aggressive, irritable and non-compliant child behaviour; higher levels of stress in the family; and

where the initial maternal perceptions of the child were critical at three the problems which presented when the child was 6 years of age were of more severe hyperactive and aggressive symptoms. This was similar to the findings of Richman, Stevenson & Graham (1982) in their community based study. When the children from Campbell's study were followed up to age 9 years, children with externalising problems at 6 years of age were more likely to still present with them at 9 years of age. Family stress and disruption did predict findings of Attention Disorder Hyperactivity Disorder (DSM111 Criteria) at 9 years, but not symptoms of oppositional disorder or conduct disorder (Campbell & Ewing, 1990). Children whose problems had disappeared at 6 years of age did not present with problems at 9 years of age.

Campos et al (1989) suggested that children need careful teaching of emotional regulation before they can learn to control emotion. The authors studied 145 preschool children aged 2-5 years attending four urban day centres who were evaluated by teachers, mothers and independent observers. The families were middle and upper class families, with a high level of education in the parents to at least 18 years. Parents, observers and teachers recorded the child's behaviour and this was contrasted with parents' parenting style. Mothers, who expressed hostile emotions in their parenting style had children who appeared over stimulated.

Tschann and colleagues (Tschann et al 1996) found that children with difficult temperaments presented with more difficult aggressive behaviour where there was conflict and high expressed emotion in the families, while children with easy temperaments from the same type of families had less behaviour problems.

Although most of the literature refers to "acting out behaviour" or externalising behaviour, shy, withdrawn behaviour or internalising behaviour was found also to be of importance. Children who were shy were more likely to have difficulty with relationships, gain educational goals later than their peers, find decision making more difficult when adult, and enter into long term relationships later (Caspi, Elder & Herbener, 1990).

An interactional approach to the development of persistent behaviour problems is probably the best one for therapists to adopt. e.g. (Cummings and Davies, 1984; Lytton, 1990) with the parents' background and mental state, the child's developmental and temperamental status and the influence of the environment and life events all contributing. Social learning was also important, with the child learning by modelling on parenting behaviour and by example (Bandura, Ross & Ross, 1961). Patterson (1982; 1994) described the development of "chains or bursts" of continuous sequences of conflict as the underlying mechanism theory for the development of conduct disorder in children. Research opinion into the examination of the sequences of events that might initiate childhood negative behaviour has been divided between whether the behaviour is initiated by the parent or the child.

Equally interesting to consider was what maintains it. Mothers of children with conduct disorder made three times more adverse initiations to their children, as did children in a normal group (Patterson, 1982).

Many children present clinically with a mixed picture of conduct disorder and also symptoms of hyperactivity.

c) Gender It seemed that gender might play a part on how temperament affected children. Boys were more vulnerable to the effect of extremes of temperament in the studies of Richman, Stevenson & Graham (1982)

Fagot (1984) observed children (18-27 months old), when they started play-groups, consisting of 12-15 children and 2-3 caregivers. There were 168 boys and 142 girls in the study. Four different categories of child problems were selected for study: conduct disorder with aggression, withdrawn under-socialised behaviours, separation anxiety and dependent personality.

Questions were asked concerning the persistence and consequences of problem behaviours in toddler children over a period of 1-2 years, including the reaction of peers and teachers to children with problem behaviours and how these reactions from peers and teachers compared to their reactions to the

average child (without problem behaviour) in their own class. The stability of problem behaviour and the reactions received by the child were related to gender of the child and sex appropriateness of the behaviour. Children were observed 12 times a day and there was good reliability between observers. Conduct disorders in boys were remarkably stable, but they were less stable in girls over the 2 years. The observers studied the reaction of teachers to children, and also observed when a child was criticised or physically attacked by another child. When the children were engaged in positive play the teacher was more likely to join in and encourage the positive play and give positive feedback. Teachers were more likely to criticise and be more negative to aggressive boys and there was more negative feedback to aggressive boys from peers also. Aggressive girls did not get a negative response from teachers. Equally, withdrawn boys got a less positive response from teachers than withdrawn girls.

d) Genetics Graham and Stevenson (1985) studied 285 pairs of 13 year old twins drawn from the general population. Zygosity was determined by a twin similarity questionnaire. Cluster analysis of the Rutter questionnaire (Rutter, 1967), taking 13 as the cut off) completed by the parents on the 541 children (95%) of the original sample revealed that children fell into 4 cluster types, one represented by anti-social items and overactivity, one non-specific group of children, one with affective or emotional problems and the largest group, which had no problems (children with a score of less than 13). The non-deviant group, however, showed the same subtypes of behaviour trends, though they did not reach a level for disturbance. The authors thought this indicated that genetic factors had a definite aetiological importance for the development of behavioural deviance. Monozygotic boys were more likely to have problems than dizygotic boys. They accounted for maternal bias. The type of deviance in the co-twin may not be of the same sub-type as his twin.

Graham and Stevenson (1987) wrote a useful review paper outlining the influence of genetics, temperament and personality. McGuffin (1987) has summarised the contribution of genetics to the aetiology of child psychiatry conditions, and has suggested that as yet not much is known. Genetics seemed

to have a part to play in some conditions for example infantile autism and hyperactivity. Both sets of authors stress the importance of looking at genetics within a nature-nurture paradigm. That is to say that how the genes express themselves would depend on how the child reacted to their environment and their parents and teachers and other children relate to the children in turn.

e) The potential for early intervention

The potential for early intervention was summarised by McGuire & Earls (1991). They discussed the prevention work mainly from the USA outlining pre-school prevention projects, working with mothers of children identified with parenting problems at a centre, (the Houston Project, Johnson & Breckenbridge, 1982; a British programme, NEWPIN, Pounds & Mills, 1985); offering family support at home to mothers, the Yale family support programme, Heinicke, Beckwith & Thompson, 1988; Provence & Naylor, 1983; the Optimum Growth Project, Caruso, 1989); work only with infants, (the Carolina Abecedarian, Ramey, Yeates & Short, 1984); work with both parents and infants Head Start, Darlington et al, 1980). The High Scope Perry project (Weikart & Schweinart, 1997).

Many of the projects did not have rigorous sampling or randomisation thus making it difficult to extrapolate their results. Child outcomes were usually based on change on a scale for intelligence or academic performance but not change in behaviour. Different classification systems were used, thus making comparison between projects difficult. The best results seemed to occur where working on parenting tasks was combined with work with the children.

Educating parents and improving their self-efficacy seemed to help. Trying to aid children's social skills so that they elicited more positive responses from parents and teachers was developed. Targeting interventions to children's behaviour would seem sensible. Very few projects produced long-term effects.

Some researchers have proposed an inoculation model, intervening early to prevent future problems e.g. Albee (1985). Others proposed attention to the "dose" needed to effect change. Others propose a nutritional model, which

would continue throughout childhood, some suggesting that this would need to be adapted to the developmental stage of the child.

An interesting intervention project was carried out by Cullen (1976). A total of 246 children were recruited between 1964-67 and were allotted at birth to a control group (122) and an experimental group (124) with prior stratification by child's sex and position in the family. There were four interviews in the first year and two more in the next 4 years. The interviews covered improving the self worth of mother, how to foster gentle interaction with child and how to adopt a positive attitude toward modifying child's behaviour . Follow up was "blind" to initial status at 6 years and at later follow up at adulthood in 1993. There were less behaviour problems at 6 years.

Cullen and Cullen (1996) followed up 209 of these children when they became adults, aged 27-29 years (104 control subjects and 105 study subjects (90% of the original group). The adults responded to a questionnaire covering their social situation and habits, educational achievements and emotional well being. The study population had less overall neurotic symptoms ($p < .001$) than the control subjects, fewer depressive symptoms ($p < .001$), more had undertaken a university degree or diploma ($p < .013$), they were more healthy, less obese, smoked less.

The research findings already outlined would suggest that where problems present in children, the roots of the problems occurred in the early years, and if the problems were not addressed, the problems would persistent through into later childhood. It would seem important, therefore, that intervention should be offered at an early age. Van de Rijt-Plooij & Plooij (1993) have suggested that there might be distinct periods in the development of the mother-child relationship which might be more vulnerable for the development of conflict. Caplan (1964) advocated working with women in the ante- natal period in order to instil in the mothers, before the birth of their child, ideas of good parenting strategies. He ran groups to train primary health workers in this task.

Assessment

In order to intervene early the problems have to be recognised. Health visitors are in a unique position as they work with families in the community. If health visitors had more training and tools to use as prompt questions they would be available to families to enquire about children's daily behaviour and suggest appropriate strategies to sort out any behaviour problems early in the child's life. They would be able to refer for further advice any family whose problems needed specialised work.

Yet Richman, Stevenson & Graham (1982) found that mothers rarely told their health visitors about problems. Field et al (1983) discussed that many mothers of young children found it very difficult to discuss their worries with health professionals. She found that 40% of first time mothers who had been depressed after birth were still depressed at the end of the first year. Most of these mothers had not been able to discuss how they felt with a professional.

Nicol, Stretch, Fundis, Smith and Davison, (1987) developed a multi-criterion approach to assessment of 375 mothers and 3 year olds in an urban area of mixed housing and social class, which had a screening efficiency of 72.07%. They used the GHQ (with a cut off of 7 or above, Goldberg (1978)), the Behaviour Check List (with a cut off of 14 or above Richman (1977)) and a self devised health visitor questionnaire to cover their knowledge of the families and any problems. The children were recruited from a year's worth of births (949) with a response rate of 774 (76%) parents. In the second stage the parents were also visited by psychiatrist, who administered the Clinical Interview Scale (Goldberg et al, 1970).

The screen did pick up families with disorder and it was seen as simple to use. However the authors said that the health visitors, by using their questionnaire only, would have recognised families with problems with a probability of .6 of a child being a case with a cut off of over 18 on the questionnaire. The health visitors knowledge of the family was better than using the attendance at GP surgeries as a criterion for problems in the community.

An important finding also was that many of the mothers who were having problems presented with feelings of irritability, moodiness and not coping, which was debilitating. The mothers' symptoms, however, would not have "fitted" into a psychiatric diagnosis such that the adult psychiatry services would have treated them. The authors suggested that using the tools as they suggested would have enabled the health visitors to refer appropriately most of the mothers and children with problems.

It is important to assess carefully so as to plan the appropriate intervention for the child and the family. Rutter and Cox (1981) determined that the most accurate histories came when families were allowed to tell what the problems were in their own words, but then were prompted along a prescribed route.

As there were many factors involved in the aetiology of childhood problems an assessment of a child should include questions about health of the mother throughout pregnancy and following and the birth history of the child; how the mother found the early years and an assessment of the child's ability to adapt to care-taking and to developmental tasks, for example feeding and sleeping routines, speech development. An assessment of the child's temperament would also be important. Question routes should also ascertain the parents' attitude towards the child, their attributions as to the child's problems and their concepts and expectations of parenting. An assessment should be made of the parents' relationship and other important relationships in the parents' life. The parents' physical and mental health should be assessed with a discussion of the child's family tree in order to discuss parental background and any physical or mental illness in the families of origin.

Precise questions about the child's behaviour that is worrying, when it happens, how often, what triggers it and how the parents are handling it will help to clarify the child's behaviour within a developmental context. Question routes were devised in the clinic and became more precise as the various research and audit projects determined important factors that should be considered (**see Appendix 1**).

Treatment

Transfer of responsibility from caregiver to child for self regulation is a gradual process and is composed of higher order change of which language is an important part. For example, ADHD mothers use less scaffolding (preparation for change and building of prerequisite skills) and more over-controlling behaviour. The context in which this work takes place is important and involves the scaffolding a mother uses to build up the tasks in increasing difficulty, using verbal problem solving tasks with leading questions to move the skill along. ADHD can be seen as a problem of low behavioural self-regulation, poor ability to plan, and cope with delay of gratification, probably mediated through language. It has been considered that ADHD children might use less useful and less mature private speech (private talk which children develop to use to practise learning tasks, which starts to develop from 2 to 3 years and moves from being discussed out loud and then moves to become internalised in most children). ADHD children will discuss what they are doing, out loud, for longer.

There has been increased interest in the development of treatment methods for working with young children mainly using a behavioural approach (altering the behaviour of the child in planned steps).

Using parents as agents for change of their child's behaviour is not new. Serketich and Dumas (1996) and McAuley, 1982 have published reviews of parent training for behaviour problems in young children. Original work used planned behaviour steps, which were worked out by therapists and the parent was supplied with a written programme This work was usually delivered in a clinic or a laboratory and children were not usually present. Methods involved training parents in understanding the problem, breaking the problem down to a series of steps, and working out what piece of behaviour to ignore or reinforce by praising or reward. Behaviour methods were then explained.

Parents often inadvertently reward the behaviour they wish to stop, for example feeding a crying child through the night. Different techniques include

shaping, gradually working with parents to shape the behaviour desired, which might include *modelling* the desired behaviour, *praising* the child when a piece of good behaviour is observed, so that the child wishes to carry on good behaviour in order to be praised; *ear-shotting*, which involves praising the child to another so that the child overhears; *cueing*, used especially, to prepare a child for an event, for example warning a child ahead e.g. before bed-time with lots of prompts, and /or planned routines, which remind a child that this was the routine that will finish up with going to bed, e.g. tea-time, play time, bath time, story, cuddle, sleep; *extinction*, for example, gradually reducing the amount of attention given by parents to a child waking during the night; *reinforcement* for desired behaviour such as staying in bed, using star charts for praise.

Gradually the work was influenced by social learning theory (Bandura, Ross & Ross, 1961) which suggested that children were influenced by how adults behaved around them. It then became clear to therapists that involving parents in the partnership by planning treatment methods together, explaining the rationale and stressing strategies to increase good behaviour (rewards, commands and attending to good behaviour) was more acceptable than strategies to reduce behavioural excesses (time out or ignoring). These newer methods aided the process and better results might be maintained. However Dumas & Albin (1986) pointed out in their study of 82 families with non-compliant children, that not all parents are ready to work on changes and they said that involving parents in the partnership in their study had not positively affected their results.

Later workers have continued to use this strategy approach, where parents plan the strategies together and the parents are supported through change.

The better studies worked with the child-parent operand pair and gave the parent clear instructions, usually written e.g. (Bernal et al, 1967). These studies work on the premise that improving the mother- child inter-actional system will achieve the better short term and long term effect. Ideas for use in

the future to prevent problems starting up again were offered in order to achieve better short term and long term effect.

A useful paper by (McNamara & MacDonough (1972) outlined the principles behind design for behaviour research, stressing the importance of a control group, base line, follow up, random allocation of treatment, an unbiased observer, adequate sampling and assignment and discussion of confounding variables.

Many parent training studies have been single case design, relying on parent opinion for change (Patterson & Brodsky, 1966; Forehand and McMahan, 1981).

Patterson et al (1982) went on to use an extensive training programme with a series of parents. He described work with 11 families with children with aggressive difficult boys with a treatment and a control group. Data was collected blind to the treatment status. Good results were obtained in the treated group. It is interesting to note that many of the programmes reported (all from America) offered the parents re-enforces also for attending, money, reduced fees for treatment, tokens to be exchanged for trips to the hairdressers, restaurants etc.!

Practitioners originally worked with single children or a series of parents and then moved onto parent-child pairs, usually the mother-child dyad. This work has been used successfully with children with sleep disorders, (Richman et al 1985); eating disorders, (Douglas 1990); behaviour (Patterson et al, 1982; Forehand and McMahan, 1981); Parent Training for children with ADHD (Anastopoulos, et al 1993).

Researchers moved on to work with parents in groups, or groups of children for example work in a day centre for pre-school children (Richman, Stevenson & Graham, &, 1982); work in schools running play groups for children and groups for parents (Nicol et. al., 1984). Parent training was been reviewed by Webster- Stratton, 1991 and Serketich and Dumas (1996). Webster-Stratton

(1991) also described her own work, where she had further developed her methods using video vignettes and role-play to further aid the learning process. She has stressed the importance of the group process and also the importance of involving fathers in the work (Webster-Stratton, 1988).

It seemed practical to see if the work could be transferred from the clinic to the community and train community professionals, like health visitors, to work themselves with families.

Most recent work in this field working within the community with health visitors has been summarised by Stevenson (ed.), (1990). This work involved working through health visitors, training them to work with parents of children with behaviour problems (Weir and Dinnock,1988; Stevenson, Bailey and Simpson, 1988;Hewit, & Crawford ,1988; Hewit,1990; Appleton,1990; Douglas & Richman & 1982).

This will be further discussed in the next chapter.

This chapter has outlined literature, which stressed the importance of problems in young children, how these problems were persistent and how some, especially those problems that were externalising, might continue through to adolescence. Aetiological and maintaining factors were described.

Prevention and early intervention with parents might give them skills to deal with children differently. It may be useful to target parents who have had more than their share of life difficulties and those parents who have children with difficult temperament.

The following chapters will describe how, I, with clinic colleagues, tried to meet this challenge and in particular, worked alongside local primary care teams to develop interventions with families of young children.

CHAPTER 3

A JOINT ASSESSMENT AND TREATMENT SERVICE FOR THE UNDER FIVES: WORK WITH THE HEALTH VISITORS IN A CHILD GUIDANCE CLINIC: METHOD

INTRODUCTION

Chapter two outlined how common behaviour problems are in young children and how the more serious problems do not resolve, especially distractable and aggressive behaviour. Also, although many parents parent their children very successfully with little support except from family and friends, some parents find their children difficult to manage, especially if the child has a very difficult temperament or if the parents themselves have many problems of their own to deal with.

It would seem, important, therefore to make available to parents advice on parenting, and to make that advice as accessible as possible without the parents thinking, that they are being labelled as non-coping parents, by professionals.

As health visitors work in the community and are available to families with young children they should be well placed to offer that advice if asked. Some of the parenting issues could be dealt with by them, but the health visitors might want the back up of a specialist service for further advice and support or as a service for referral for a second opinion.

This chapter describes work developed with health visitors to offer a service for the assessment and treatment of families with children under five, living in the New Forest, who had behaviour problems. This work spanned the years from 1984 to 1987. This service offered training to health visitors, as well as acting as a referral resource.

The aim was to set up a service within the community, which would integrate the primary health care team with the specialised child guidance service, with the intention of trying to enable parents having difficulty parenting to obtain

help as soon as possible, in order to try to prevent behaviour problems becoming persistent.

The clinical work involved all members of the clinical team, with the data collected by myself. This work was published (Thompson and Bellenis, 1992).

The Primary Care Team

Health visitors (HVs) are nurses who have undertaken further training in order to become health visitors and work within the primary health care team. They are generally attached to General Practitioners and, in our health district at the time of this project, were paid from the community health budget. The HVs had a caseload, which might encompass a large age range, but in general they tended to target families with young children. In our district they had a duty to meet with parents when the baby was 11 days old, taking over from the midwife, and to assess the child developmentally at 6 weeks, 18 months and 3 years. Up until recently they also did the pre-school assessment. A doctor joined them for the assessment at 6 weeks and at the pre-school assessment. The HVs were thus in a position to assess behaviour problems early and offer advice and support. In our district, as in others, they would target families about whom they had concern and also try to enable families with young children to meet each other. Many were involved with ante-natal teaching and also ran post-natal groups.

Richman, Stevenson and Graham (1982) found, however, that health professionals were not always aware of all families with problems. Interviews of mothers with young children from a group run as part of a community project in Govan, Glasgow, indicated that many mothers found it very difficult to use professionals well. The mothers suggested that there was a need for those professionals involved in work with families with young children to "listen" to families, in order to focus their work and for any interventions suggested, to have "meaning" for the families (Thompson and Wheeler 1981).

“Link up” a project in Glasgow within deprived communities, which encouraged health visitors and other community workers involved with the

under fives to work more closely together in order to avoid duplication of resources and also to avoid families slipping through the net, indicated that health visitors had an important part to play. However, if they were to work alongside other professionals they had to be confident in their own role and understand which skills they had which were unique and which were shared (Pugh, Aplin, De' Ath & Moyon, 1987).

Health visitor training

Florence Nightingale established Health Visiting in 1892.

She outlined her suggested qualifications for this new type of nursing-:

"It is hardly necessary to contrast sick nursing with this (health visiting). The needs for home health bringing, require different, but not lower qualifications and are more varied. They require tact and judgement unlimited to prevent the work being regarded as interference and becoming unpopular. She must create a "new-work" and a new profession for women." (C.E.T.H.V.,1977).

These guidelines are relevant today. The health visitor course is still, however, broad based, and most health visitors have had to learn the relevant skills they need after they leave college. This was confirmed in a survey of health visitors in various health districts in England, which asked them what training they had had in the assessment and treatment of children and families where there were behaviour difficulties (Hewitt, Appleton, Douglas, Fundudis and Stevenson,1990). 90% of the health visitors surveyed said that behaviour problems were an important part of their role and 95% thought that post-qualifying training was necessary.

Projects have been developed working with health visitors, which used different ways of enhancing skills: ongoing supervision groups for health visitors working with children with sleep problems (Weir & Dinnock,1988); joint working between health visitors and psychologists on running workshops for behaviour problems in children (Hewitt & Crawford 1988); workshops for professionals on how to treat sleep problems (Richman & Douglas); seminars on behaviour issues to primary care professionals (Appleton, 1990),

(Stevenson, Bailey and Simpson 1988); use of specialist health visitors for work with children and families on positive parenting where abuse was suspected (Browne, Davies & Stratton, 1988).

Evaluation

Evaluation of work, which might have a long term rather than a short-term outcome, could be difficult. Work to prevent the continuation of child behaviour problems is of that category. This work has not always indicated that it can be shown to be effective in a measurable way. The usual method of evaluation has been to define the work to be offered, then to look at some measurable change in the consumer. This might be a change in the way the health visitor works with her families following training, or a measurable change in the problem, which presented originally in the children or the families, following an introduction of therapy. (Stevenson, 1986)

Hewitt (Hewitt & Crawford, 1988) set up a district wide service offering health visitors a consultation service on how to work with behaviour problems from his Bristol clinic. Fifty one, out of a possible 66, health visitors, attended. The two-day workshops on the recognition and management of behaviour problems were repeated to allow all to attend. Three months, post workshop, health visitors were sent a questionnaire to ask them what they had gained from the workshops and whether what they had learned had been useful in their practice. 40 health visitors replied (78% of those who had attended). 90% found the workshops useful, especially topics on the management of childhood problems. They also commented that more advice about dealing in depth with problems would be helpful, for example sleep problems. 95% said that the workshops had made them more confident in dealing with problems, with 78% saying that they now dealt with more problems themselves.

Weir (Weir & Dinnock (1988) recruited health visitors from 4 health centres in the community and trained them in the use of behaviour techniques in the treatment of sleep disorders. Health visitors from 4 similar health centres formed a control group and also recruited children with sleep problems. Both groups of health visitors used the identical semi-structured interview and

completed the sleep questionnaire with the family. The health visitors also collected information about behaviour problems in the children. The health visitors met with Weir for an hour a week every two weeks for six months and were supported in the use of behaviour modification using the sleep management manual (Douglas & Richman, 1982). The intervention group recruited children with sleep problems, interviewed the mothers and got permission to discuss the treatment with their supervisor. The control group health visitors treated the children the way they always did. The health visitors were told that the families would be revisited at 6 months. 51 cases were recruited, 27 in the experimental group and 24 in the control group. The mean age was 20 months (4 months to 4½ years) and there were equal numbers of boys and girls. There was no statistical difference between the intervention and the control groups on family composition, number of children in the family, social class, housing, obstetric difficulties, chronic illness in the child or life stresses. On referral there was no statistical difference in the severity of the sleep disorder, the effect of the sleep problem on the family, the previous treatment regime or the health visitors' rating of severity. At follow up at six months, six families had left the area, one had no health visitor, one refused follow up and 42 cases had outcome data. There was no significant difference in the two groups in the change of the sleep problem, or profile of behaviour problems. The authors postulated that as they believed that their treatment package can be successfully delivered by trained psychologists (Richman et al, 1985), their health visitors may not have had sufficient training or been able to use the support offered effectively. They also suggested that the numbers recruited may not have given sufficient power to show change.

Appleton and colleagues (Appleton, 1990) looked at the influence on the HVs' practice, of a year's seminar course on behaviour management: results were equivocal. Browne et al (1988) looked at the effectiveness of a specialised health visitor available to work with families where there might be a possibility of abuse: this seemed to produce change in families' functioning.

Stevenson, Bailey and Simpson (in Browne, 1988) in a well designed and controlled study ran group training for 14 health visitors to undertake work

with mothers with postnatal depression, with the aim of improving the mothers' parenting skills. This project highlighted the problem of working with health visitors, who had to change their way of working. The health visitors were randomised into two groups, trained and delayed training, with 67 and 72 families in each group and with a four way design (trained HV: non-intervention (34), intervention (33); delayed training health visitors: non-intervention (60), intervention (12). Although the satisfaction of the mothers (and the health visitors) with the input was high, rates of maternal depression did not go down (measured using the 30 item General Health Questionnaire with a cut off of over 5, a measure of non-psychotic mental distress), nor did the indices of the mothers' parenting indicate change for the better (maternal warmth to the child, fear of loss of control, frequency of smacking, behaviour problems in the child).

The authors suggested that training health visitors to take on tasks in the community should be carefully crafted in order to work within the HVs' culture and methods of working. HVs were very "attached" to their families and targeted behaviour work did need a shift in style to an approach with clear boundaries, dealing with the problem in hand and not allowing deviation off to other issues when trying to sort out parenting e.g. housing or a sick child.

Evaluations of health visitor based services to pre-school children" have recently summarised by Stevenson and colleagues (Stevenson, 1990).

The development of the service

Following discussions with the clinical team and the local HVs, we re-looked at the way we wanted to work with the community primary health team in order to make the clinic staff more accessible:

1. The clinic had to offer open access to the health visitors for consultation and referral, with the child guidance staff willing to work as partners with the health visitors.

2. Methods of working with the health visitors had to be developed that would enhance their skills and, at the same time, fit in with the way they and their managers wished to run their caseload.
3. Any service developed would have to be helpful to families.
4. The service had to have an on-going commitment from the Child Guidance Service and the health visitors so as to survive through staff changes and shortages.
5. Built into the changes should be audit and review.
6. Case notes would have to be standardised and a data system developed in order to record the information for easy retrieval.

Aims

The aims of these changes were:

1. We wished to develop joint work with the health visitors in order to increase their skills in the early assessment and treatment of children with behaviour problems.
2. We wished to do this within a community service for the under fives.
3. The new service would be evaluated.

METHOD

1) Setting up the project

In order to set up this new integrated service we had to negotiate with the Manager of the Health Visitors. We were fortunate that the Nursing Manager at the time, and subsequent managers, have been very supportive. They were part of the work from the beginning and suggested ideas for training workshops. They were also happy to release staff to come to workshops and to clinic appointments.

2) Development of the health visitors' skills

We thought it important to discuss with the health visitors what skills they needed and how we could develop these skills, building on existing skills in order not to “de-skill.”

a) We ran workshops. Topics included: assessment of families; assessment and treatment of behaviour problems presenting in young children; communication skills; "re-framing " the problem in order to plan the focus for work; how to "hold " families while change happens; how families affect the professional.

b) In order to provide regular support for the health visitors we set up monthly support groups at both ends of the Forest. These meetings were used for ongoing discussion of mutual families; for supervision of the health visitors' own cases; for discussion of formal topics by prior arrangement, often with a video presentation and for discussion of possible referrals. All members of the clinic team attended if possible.

3) Changes in the service

a) With the advice of the health visitors, a referral letter was formulated for the health visitor to use to refer families to the clinic. This was used both as a reminder to the health visitors of the background information to collect on a family and also to provide background information for the clinic staff.

b) A questionnaire and diaries were sent to all families with the letter inviting them in to the first appointment, and the families were asked to bring these along to the appointment. The questionnaire was the Behavioural Checklist (BCL) (Richman,1977), a checklist formulated by Richman and colleagues and tested in the large community study already outlined in chapter 2 (Richman, Stevenson & Graham,1982). In that study the BCL was used alongside a clinical examination. The BCL identified 82% of the moderate to severe cases. We used it to in order gain the parental perception of the problem. The families were asked also to fill in a behaviour diary in order to describe the behaviour of their child and how they handled it over two week days and one weekend day. If appropriate the parents were asked to fill in a sleep diary covering the week before the clinic visit, outlining the sleep pattern

of the child and how the mother handled it. Since the health visitors have been using these tools with their families, they been able to assess and deal with some of the families by themselves, thus avoiding referral on into the clinic.

c) Joint appointments with the health visitors at the clinic focussed on assessment techniques. The health visitors found it useful to observe their families being interviewed by someone else. Discussion about the family enabled a re-defining of the problem in order to decide the focus of work, and often enabled the health visitor to feel more empowered with her own work with the family.

Following assessment, follow up of the families was by the health visitor alone, the clinic alone, jointly, or by the health visitor alone, with the clinic reviewing, as appropriate.

d) Clinic social workers ran groups for mothers with children with behaviour problems in the clinic. The first series of these and their influence on referral into the clinic by HVs, was evaluated by Agar (1988). She found that, by increased contact with health visitors and by running groups for mothers who had children with behaviour problems (which was often linked with the mothers' own depression (high score on the Malaise Inventory, (Hirst,1983), the stigma of referral to the clinics was reduced and referrals to the clinic by health visitors increased.

f) The clinic social workers ran a support group for the community health visitors, who were running their own groups.

4) Evaluation

We wanted to evaluate this work. As the work was done as part of an on-going service commitment, we were not able to build in evaluation right from the start. Evaluation was carried out retrospectively. We looked at four aspects of the work. Firstly, we looked to see if there had been a change in the referral pattern into the clinic, both the rate of referral and the types of problems being referred. Secondly, we looked to see if there had been changes in how the health visitors worked with the clinic. Thirdly, we asked for

feedback from the health visitors on their opinion of the service and to learn if they considered that it had added to their skills, in particular in their work with families. For this aspect we used a modified form of the questionnaire used in a previous study of health visitors (Hewitt, Appleton, Douglas, Fundudis and Stevenson,1990) These three aspects of the service will be reported in this chapter. Fourthly, we undertook a follow up study of the families who had been to the clinic and their referrers to learn if they considered that the service had been of a help to them (Bellenis & Thompson,1992, Chap 4).

This work was carried out in 1989 five years after the service was set up, and covered the years from 1984-87.

RESULTS

1) Referral pattern

Referral rate

Table one outlines the referral statistics for the years under review. The statistics for 1983 have been included to indicate the figures for the year before the joint work with the health visitors started.

Table 3.1**Referrals into the Child Guidance Service 1983-1987**

Before Joint service	Joint Service				
	1983	1984	1985	1986	1987
Total Referral rate into the clinic	166	156	161	176	173
Under 5 by GP	12	12	17	18	14
Under 5 by HV	5	8	18	17	22
Under 5s by GPs and HVs	17	20	35	35	36
	(10%)	(13%)	(22%)	(20%)	(21%)
Over 5 by HV	0	1	8	10	16
Total by HV	5	9	26	27	38
	(3%)	(6%)	(16%)	(15%)	(22%)

(Figures in brackets are the % of the total referrals into the clinic)

During the years 1984 to 1987, 65 children under five were referred by the health visitors and 35 children aged five and over.

It is interesting that the referral rate for under fives to the clinic from health visitors rose, as expected at the beginning, but then began to level off, with an increasing number of older children referred by the health visitors. In 1983 referrals of under fives by health visitors were 3% of the total referrals and by 1987 the under five referrals by health visitors were 22% of the referrals.

Type of referral

The referrals into the clinic at the beginning tended to be circumscribed problems. As the health visitors continued to work with the clinic they dealt with more of those simple problems themselves and referred more

complicated management problems, which usually needed some intensive individual work with the mother.

This aspect of the work was normally undertaken by one of the clinic team. The health visitor continued to work on the parenting issues.

Ages of children referred

The largest group of children referred were 3 and 4 year olds, but there were more children under one being referred.

Total number of under fives referred by all sources was 126 with the number of boys being 73 (58%). Of the under fives referred by health visitors 16 (46%) were boys.

Pattern of referral by health visitors to the clinic

Questionnaires were sent to all the health visitors in post in 1989 (32). Unfortunately some health visitors had left their posts and could not be traced. Replies were received from 25 (78%) of the health visitors who had been involved originally. The figures quoted below, refer only to the health visitors who replied. The questionnaires were filled in anonymously.

Almost all the health visitors thought that they had the skills to make the decision to refer directly to the clinic although most did discuss it with their General Practitioner to inform them of what was happening. They thought that they were more able to refer directly into the clinic than they did in the past. Only 2 out of 25 thought it necessary to ask permission from the General Practitioner, although 15 (47%) did discuss the referral with the General Practitioner before referring (8 referred directly).

2) Pattern of work with health visitors

Table 2 shows the amount of joint work in the period under study. Families referred seemed well briefed and usually wanted an appointment after referral.

(Only 8(8%) of health visitor referrals and 10(16%) of General Practitioner (GP) referrals did not keep an appointment).

Table 3.2

Joint work with the Child Guidance Clinic and health visitors

	Before Joint		Joint Service			Total
	1983	1984	1985	1986	1987	
Total number of referrals by HV	5	9	26	27	38	100
Use of the referral letter by HV	0 (0%)	2 (22%)	16 (62%)	18 (67%)	26 (68%)	62 (62%)
Joint first visits with HV	1 (20%)	2 (22%)	19 (73%)	21 (78%)	15 (39%)	57 (57%)
Joint on-going work	1 (20%)	3 (33%)	11 (42%)	17 (62%)	14 (36%)	45 (45%)

(Figure in brackets is the % of health visitor referrals)

The health visitors used the referral letter for most of their referrals (62%). If they knew the family, they would fill it in for the clinic for referrals referred by the GP. The day diary was not found to be very useful, but the sleep diaries were filled in as necessary.

The Health Visitors' involvement with the clinic

Half had attended workshops; only one health visitor did not attend the monthly meetings.

Referrals into the clinic

Only one health visitor had never referred and over half had referred more than five times.

Health visitors attending the clinic with families

Only three had never attended the clinic.

3) Feedback from the health visitors

Proportion of workload spent dealing with developmental problems

Almost all the health visitors 29(92%) thought that dealing with developmental behaviour problems was an important part of their workload, (over 60% of work load) and were committed to working with them.

However, only a third said that their training had equipped them to deal with these problems. The answers seemed to depend on number of years qualified, but also on the training school attended. More recent courses had addressed these issues.

Use of counselling and behaviour techniques

Only 7(28%) said they had been trained in family counselling techniques. All thought that acquisition of skills in behaviour and family counselling techniques were essential.

Change of health visitor practice (after the courses, attendance at clinics and monthly meetings

21(66%) said that their practice had changed after the work with the clinic; 14(44%) said that their assessment practice had changed; 15(47%) used more strategies with a further 5(16%) continuing to use them as much as before; 2/3 of the health visitors had used strategies frequently in the last month with their families; almost all had used sleep diaries.

DISCUSSION

This work enabled us to offer an integrated service for the under fives for the New Forest.

The health visitors now refer regularly into the clinic. The referral rate into the clinic continues to rise, but the referrals from health visitors levelled off at first as the health visitors felt more empowered to assess their families.

In 1988 Agar (Agar,1988) found, in her survey of health visitors from part of our study area, that 6 out of 8 of her surveyed health visitors thought it necessary to ask permission from their General Practitioners before referring into the Child Guidance Service.

Although we are not advocating that health visitors do not work closely with their colleagues, we think it is important that they are able to use their own judgement. It would seem with enhanced skills and more confidence in the area of work with the under fives, the health visitors think they have the skills to refer on their own. This might mean that there is less delay in families being referred on, if appropriate. (We always ask families' permission to write to their General Practitioner as well as the health visitor, following our assessment.)

This work and a clinic specifically set up for young children aged 0-7 years, has meant that referrals into the clinic have started to rise again, with 125 under fives referred into the clinic in 1990 (33% of the total referral rate of 382). There were 87 referrals into the clinic, of all ages of children, by health visitors (23% of the total referral rate) and this will be discussed further in chapter 7.

Although we did not receive replies to our survey from all the health visitors it would appear that the health visitors who did reply thought that they had increased their skills in the assessment and the treatment of young children. Their concern at their inadequate early training in behaviour management skills matches the survey by Hewitt and colleagues (1990).

The health visitors continued to attend monthly meetings and there were continued requests for workshops. This work enabled the health visitors to identify families who require early intervention. Some of them have set up groups for mothers who were depressed or for mothers with children with

behaviour problems. They were instrumental in encouraging social services to organise groups for mothers with deep-seated parenting problems.

From our survey, it would seem that the health visitors thought that the joint work had enabled them to make a better assessment of their families' difficulties and to use the appropriate therapy. The health visitors now carry out most of the less complicated work themselves and only refer onto the clinic the families where they thought they were stuck or that the families needed more resources than they had to offer. This was similar to the results of the evaluation of their work with health visitors by Hewitt et al (1990).

One of the important features of the work was to continue it as an on-going process. New health visitors coming into the District needed input and the more experienced ones needed "reinforcement".

The health visitors were represented on the working parties for child abuse, adolescents and other relevant local committees.

The percentage of children on the "at risk register" for the New Forest was low compared with the figures for the City of Southampton at the time of this project. Although there could be many reasons for this, it could be postulated that our work had a preventative role.

In addition, the work outlined above, enabled us to be awarded a grant from the Wessex Regional Health Authority to set up a research project to look specifically at sleep problems (chap 6).

In conclusion

It was clear that the health visitors valued this service. The work identified training needs and that led to behaviour management courses with manuals to accompany them (Hooper and Thompson, 1997a,b). All district health visitors and school nurses were encouraged to go on them and the courses were available to professionals from other districts.

Similar to the findings of Hewitt and Crawford (1988) the health visitors wanted more advice on specific work, for example dealing with sleep

problems. This led us to a research project to determine if sleep problems could be dealt with by nurses in the community (Chap 6) as previous projects led by Weir and Dinnock (1988) for example, or by Appleton (1990) indicated that even focussed teaching on behaviour management seem not to generalise to a group of workers in the community.

The Health Visitor Manager continued to allow the health visitors the time to attend clinic appointments. By working in this way we thought we could reach the families with young children in the Forest. We hope we could influence the work done with them and possibly influence positively the early years for the majority of the children.

Further chapters outline how this work progressed further.

CHAPTER 4

A JOINT ASSESSMENT AND TREATMENT SERVICE FOR THE UNDER FIVES: WORK WITH THE HEALTH VISITORS IN A CHILD GUIDANCE CLINIC : OUTCOME

INTRODUCTION

In the previous chapter I described the setting up of a new service for families with young children, which involved close co-operation between child guidance staff and health visitors.

It was important to know how effective treatment was in this age group. Are there some problems more easily dealt with or some treatment approaches that are more effective? At that time outcome research had been inconclusive or disappointing. Stevenson (1986) identified many of the problems associated with evaluation studies of psychological treatment of children, for example: not obtaining baseline data before starting treatment, not defining the problem to be dealt with, before starting, and not taking into account the confounding variables. .

Pound and Cotterell (1989) suggest consumer opinion as a useful outcome measure, but one that has not been frequently used despite the need for 'accountability'.

The aims of this part of the study were to evaluate a service set up for young children by:

- 1) Examining appropriateness of referrals into the clinic
- 2) Looking at change in outcome for the problems referred
- 3) By asking the parents' view of the outcome of the problems and of the work done

METHOD

The total number of referrals of all ages of children into the main clinic rose over the four years of the project but averaged 167 per year. Two team members assessed all families and then planned the most appropriate treatment, taking into account the individual, the family and the presenting problem. Realistically the specific skills of the relevant therapist also contributed to the choice of therapy.

This study looked at all referrals into the clinic of children, aged up to their fifth birthday referred between 1984 and 1987. 126 children were referred. Children who had been referred more than once were included on their second referral only (12). Children were excluded if they had been referred for a single one off assessment, for example for a court report or for an assessment of developmental delay (16). 19 did not attend. This left a total of 79 valid cases for research. The records of all children aged under five referred between 1984 and 1987 were input to a designed data base using DBaseIII software.

The variables recorded included: *socio-demographic data; referrer; referred problem; diagnosis; treatment methods; which family members attended and by whom they were seen; health visitor involvement and outcome as perceived by the clinic staff at the time of closure.*

Questionnaires were sent to all 79 families. Families were sent a two page questionnaire, reminding them of their reason for attendance at the clinic and asking them to tell us from memory, the state of the referred problem at the end of therapy, and also, at the time of the questionnaire. They were also asked whether any other problems had arisen and for their views on the clinic and their treatment.(see appendix).

Non-responding families were sent a second questionnaire together with a stamped addressed envelope and if necessary, further contacted by telephone.

GPs and Health Visitors were sent a broadly similar but shorter, one page, questionnaire.

The questionnaires were all sent out at the same time, so the time between treatment and follow up varied between six months and four years.

Information was then compiled and analysed using SPSSpc + (Norusis).

RESULTS

The majority of referred children 54 (68%) lived with both their natural parents; 4(5%) lived with mother and stepfather; 16(20%) with a single parent mother and 3 (4%) with foster parents. Data was not available for 2(3%).

The social class distribution: using the registrar general's classification, I 2.5%; II 15%; IIIIn-m 10%; IIIIm 25%; IV 14%; V 7.5%; Unemployed/armed services 12.5%; no data 13.5%. This was typical of referrals to the clinic as a whole as described in an earlier paper (Thompson and Parry,1991)..

Sex: 60% were boys, with a slight, but non-significant excess in all age groups. *Age:* 4(5%) were under 1 year old; 10(13%) were one year; 17(21%) were two years; 22(28%) were three years; and 26(33%) were four years.

Referral source: 19 (24%) of referrals came from GPs, 50 (63%) from health visitors, 5 (6%) from a paediatrician and the remaining 5 from social services, parents or a Clinical Medical Officer

Ordinal Position: 42 (53%) were first children; 17(21%) were only children; 14(18%) were youngest and 6(8%) were middle children.

Diagnosis

Thirty nine children (49% of the referrals), had a diagnosis of conduct disorder: either alone, combined with developmental disorder or with an emotional disorder. 27(34%) were referred for problems within the family only. (That is either a management problem or relationship difficulties between parent and child.) A further 8 (10%) had uncomplicated sleep problems. 3 (4%) were referred for enuresis or encopresis and 2 (3%) had an emotional disorder. In addition 2 had learning problems as a secondary diagnosis.

Treatment

18 families (22%) were seen only once. The primary treatment offered to the remaining 61 children was: group-work for mothers of difficult toddlers (this was usually associated with management of relationship problems) 5(8%); family treatment, 31 families (51%) (2/3 family therapy, 1/3 focused strategy work); marital therapy, 7 (11%); counselling of mothers, alone or with fathers 8(13%), individual psychotherapy, 9 mothers (15%); individual psychotherapy, 1 child (2%).

This classification masks the flexibility of the work in the clinic where different family members were seen at different sessions and some families were offered more than one therapy.

Response to Questionnaires: families

33 out of 79 families (42%) responded by completing the questionnaire. Of the rest many had moved (some of the questionnaires being returned by the GPO). We received a number of replies explaining why the questions were now irrelevant (e.g. serious physical illness, child now in care of grandparents with little contact with mother). Telephone contact was attempted with those from whom we had heard nothing. This brought the total number of replies to 36, 45% of families.

There were no significant differences between the returning and non-returning families in social class, treatment or sex of referred child. The most interesting factor affecting the return or otherwise of the questionnaire was the child's diagnosis. For most diagnoses the number of questionnaires returned was roughly equal to that of those not returned. However, all 8 families with a diagnosis of uncomplicated sleep problems replied, whereas only one third of those with a diagnosis of family problems returned questionnaires.

The following data dealt with those families from whom we received replies, 36 (45% of the total studied). At the end of therapy one third of families said that the problem had resolved or improved a lot, one third said the problem had improved a little and for one third there had been no change.

At the time of reply the problems of 26 (72%) of the children had resolved or improved a lot; 8 (22%) children had improved a little; one child (3%) was no different; one child had become worse; two children had developed a serious medical problem in the intervening period; five children had a new conduct disorder.

Although at the end of therapy, those with family problems only were less likely to have improved, this difference had disappeared by the time the questionnaires were returned, giving a similar picture across diagnoses.

14(40%) families had been unsure about the original referral; about half of these were later glad of attendance, the rest remained unsure. Three (9%) families had actively thought it was a bad idea but attended nevertheless. Of the remaining families 18 (51%) had wanted to come to the clinic, most of these were glad of attendance, but a few were not. After therapy a total of 23(63%) approved referral; 7(20%) regretted attendance; 6(17%) remained unsure.

There was no correlation between the state of the problem at the end of therapy and the parents continued approval of the referral or otherwise. However those families who were glad of the referral were more likely to say that the problem had resolved at the time of follow-up. Because of the high number of non-responders it was not statistically measurable. 23(65%) families had thought their problem was understood, and the same number found staff helpful. Although there was a strong association, these were not exactly the same families.

Response to Questionnaires: General practitioners and health visitors

Nearly half of 79 GP questionnaires were returned completed, most of the rest stated that the GPs were unable to complete the form for a variety of reasons. Of the Health visitors, only 13 gave a useful response. Many Health Visitors had moved, changed practices or had no further contact with the families in question.

Both GPs and health visitors returned questionnaires for 10 families: 9 of these were in agreement with each other. For the one family where there was disagreement between the GP and the HV, the GP viewed the family's problem as having improved whereas the health visitor found little difference.

Replies from referrers

Because of the paucity of replies from GPs and Health Visitors, they were combined as 'referrer'. This gave a total of 35(44%) replies. Questions were occasionally left unanswered so that for any particular question the total number of replies may be less than 35. Of those who replied, 85% said that their patient had improved by the end of the therapy. This dropped to 81% at the time of response.

Only 1 patient was considered to have become worse. All replies indicated that they would refer a similar problem to the clinic in the future.

Work with Health Visitors

During the research period an attempt had been made to involve the families' health visitor in all 79 referrals.

In 15 cases (19%) this did not happen; in a further 19(24%) the health visitor was simply involved in discussions with the clinic worker before the family was seen at the clinic; of the remainder, the health visitor was supervised by the clinic in six cases (8%), and she did the majority of the work; 13 cases (16%) were seen by both clinic staff and the health visitor, but separately, in parallel. This involved frequent discussions between the workers, with the health visitor usually doing strategy work and giving support, and the clinic doing individual or family therapy. The final 26 cases (33%) were seen in the clinic with clinic staff and the Health Visitor working together. That is to say that there was joint work between the health visitor and the clinic in 45 families (57% of cases).

There was a trend for health visitors to be more involved with the families and with the clinic if the referred child was two years or under. Indeed they were

closely involved with all those under one year at the time of referral. If a health visitor had made the initial referral she was more likely to be closely involved in treatment. The extent of Health Visitors involvement did not have a significant relationship to the outcome as measured by the clinic, the referrer or the family.

Outcome

A variety of outcome measures were taken and compared.

These were: The clinics' view at the end of therapy; the patients' retrospective view at the end of therapy and at the time of the study; the referrers' retrospective view at the end of therapy and at the time of the study.

From the clinic records the outcome was only ascertainable for half of the cases. Of these, problems appeared to be resolved in 22 (60%), improved in seven (20%) and no different in seven (20%). Compared with the families' response as documented under "Replies from families", the clinic appears to have been more optimistic than the families themselves.

The referrers thought much the same as the clinic, although, with the small numbers involved, it is impossible to establish any correlation between the different sets of outcome data.

Overall the outcome for different diagnostic groups was similar, with slightly less improvement in those with family problems alone.

DISCUSSION

Other studies of work done in Child Guidance Clinics have looked at services over a short time span, for example one year's work followed up after 3 years (Thomas & Hardwick, 1989) or a cross sectional snap shot of the first 70 cases into a clinic at three year intervals over a 6 year period (Thompson & Parry, 1991). The present study, in contrast, looked at one specific area in detail over a period of four years, a service set up for children under five years of age. There has been very little outcome work published about work with young children within the clinical setting with exceptions from child

psychology services, for example Hewitt and Crawford (1988) and Stallard (1993).

This chapter looked at the work done with families, the outcome as judged by the clinic and a measure of 'consumer satisfaction' in the views of the families and the referrers.

Five different outcome measures were used: the clinic's opinion at the end of therapy, the families' opinion at the end of therapy (retrospective), the families' opinion at the time of the questionnaire, the GP/Health Visitor's opinion at the end of therapy (retrospective), and the GP/Health Visitor's opinion at the time of the questionnaire.

There were considerable differences between the results, which need some explanation.

1) The lack of agreement between professional and family opinions: it seemed likely that different criteria might have been used. The professionals were more likely to use change in family functioning as a sign of improvement. Alternatively GPs might believe (correctly or otherwise) that a reduction in the attendance at surgery reflected an improvement in the symptoms presented by the family.

2) The reported improvement from the end of therapy to the time of the study: This was retrospective memory but immediately after therapy families' views were likely to be affected by gratitude or otherwise towards the therapist. Equally, changes started during therapy might multiply because of a positive feedback loop resulting from improved behaviour or communication.

This was a retrospective study with no control group, and a variable time lapse between treatment and follow-up. It was possible that changes noted in the families' reports of symptoms might have simply been due to the passing of time.

However, this was unlikely to be the sole answer as, in the opinions of families who replied, at the time of the questionnaire 94% of children had

improved to some extent. 77% of these were either totally recovered, or markedly improved. According to the community follow up study of Richman and colleagues (Richman, Stevenson and Graham,1982) 61% of children could be expected to have their problems persist from the age of 3 years to 8 years.

Our results were based solely on parental report at an arbitrary time. However, it could be postulated that the very low level of persistence of problems (6%) reflected the work done by the clinic.

One problem in evaluating this data was the small number of questionnaires returned. However, the proportion (about half) was consistent with other studies (Thomas and Hardwick, 1989). It was also noteworthy (and could be cost saving), that if a response could be expected, it came from the first contact and without a stamped addressed envelope. The response from other professionals was disappointing, but could be understood in terms of the mobility of the population of the area, the change in professional staff, particularly the health visitors, and the fact that health visitors no longer had contact with some families as they had passed on the records to school nurses.

Although initial diagnosis affected whether or not a family replied, there was little difference in the outcomes of different diagnostic groups by the time the questionnaires were returned. As more families with family problems only did not return questionnaires, there remained the possibility that that might have skewed the results.

We had hoped for a correlation between health visitor involvement and improvement at follow up, as it might be expected that close liaison between the local Health Visitor and the clinic might have improved the effectiveness of the therapy. We knew from a previous paper (Thompson and Bellenis,1992), that attending the clinic both empowered health visitors and improved their technique.

Over the 4 years of the study the number of referrals from Health Visitors rose and then flattened. There was also an observable difference in the type of families, which they referred. They became more complex and appeared to

include more mothers who were depressed. (Unfortunately this could not be objectively measured for reasons to be discussed.)

The Health Visitors were tackling the more straightforward cases more confidently by themselves and referring those families with the more complicated problems (personal communication).

Over the study period, health visitor attendance at the clinic declined. This appeared to be related to an increasing workload and vacant posts. It was also due to the fact that latterly the clinic was dealing with more complex family interaction problems, not necessarily appropriate for health visitor involvement.

This study highlighted a number of important problems common to other retrospective surveys. Despite good casenotes there were areas of information not recorded, which were important to the survey, although not necessarily to the work done with a particular family. Other details (such as treatment), which were well recorded, were nevertheless difficult to code because of their complexity and the simplicity demanded by any useful recording system. This led to a relative crudeness in the data, which it was impossible to avoid.

Maternal depression was another important variable which we were unable to explore. It was well known to be common in mothers of young children (Brown and Harris, 1978) however, it was infrequently noted and was never commented upon when not present. This unfortunately precluded its use as a variable in this study.

CONCLUSION

Because of the research interest in the prevalence of problems in this age group and the concern that behaviour problems in young children do not go away, we had thought it important to begin to offer a service for young children and their families. As health visitors are well placed to take part in this work it seemed opportune to set up a service with them.

The evaluation described in this chapter indicated that families liked the service and health visitors used it. It would seem also that the work done with the families produced change.

Following this evaluation we decided that we should set up a clinic for young children, which would be held separately from the main clinic. The staff could then develop methods of working with these children. A separate recording system was set up in order to capture information more accurately. A data system was devised and introduced to the clinic for ongoing management, audit and research.

This new service would enable us also to work even more closely with health visitors and other workers who worked with this age group including social workers and playgroup leaders. This work was evaluated and is reported in chapter 7.

CHAPTER 5

The New Forest Development Project (NFDP)

Prevalence of behaviour problems in three year olds in an urban-rural community

The NFDP was planned by myself, Jim Stevenson, at that time Senior Lecturer in Behaviour Science at University of Surrey, then Reader in the Behavioural Sciences Unit, Institute of Child Health, University of London and Peter Nott, Senior Lecturer in Adult Psychiatry, University of Southampton

Current literature at the time highlighted the prevalence of behaviour problems in pre-school children (Richman 1982; Jenkins at al.1984; Barron & Earls (1984); Offord, 1987), and the importance of persistence of problems, particularly in children with problems of aggression and management difficulties (Richman, Stevenson and Graham, 1982; Garrison and Earls,1983; Robins, 1991; Campbell & Ewing,1990). Links between types of disorder and long- term problems were suggested.

In addition, the audit of our pre-school referrals 1984-87 into the clinic (chapter 3) had indicated that behaviour problems were of concern to parents, and the health visitors were also concerned at the significant number of problems in that pre-school group of children, problems they did not think that they had the skills to deal with.

Therefore, it seemed important to try to establish the prevalence of behaviour problems in our clinical area of the New Forest. Most previous studies of behaviour problems in pre-school children had been done in urban populations and we wished to establish the rate in our mixed urban-rural area.

The background literature concerning pre-school behaviour problems was outlined in chapter 2. Despite the considerable interest in epidemiological studies within developmental psychopathology in the past 20 years relatively few pre-school studies have been conducted. Richman and colleagues (1982) in the Waltham Forest Study identified 14.3% of children to have behaviour problems by interview with the BSQ. At a subsequent clinical interview 7% of children were found to have had problems of moderate/marked severity and 15% mild severity. Jenkins and colleagues (1980,1984), in their study on an inner city sample, found comparable rates of behaviour disturbance.

The Isle of Wight and inner London data obtained by Rutter et al (1970, 1975) on 10 and 11 year-olds suggested that prevalence rates for behavioural disturbances were higher for inner city compared to rural children.

The Ontario Child Health Study (Boyle et al 1987) found that hyperactivity was the only individual disorder to show significant difference between urban and rural children (Offord et al 1987), although urban children were significantly more likely to show more than one disorder. Offord et al (1987) included children from 4 to 16 years but unfortunately did not provide separate analyses for the pre-school age range

Quinton (1988) described the impact of the urban environment on the mental health of children. He concluded that a range of features of both physical and social environments contributed to the increased rates of psychological problems in urban settings. The situation appeared to arise because families with a range of psychological difficulties were found in certain urban areas with poor physical environmental influences and poor housing in particular.

A potentially strong mediator of any increase in behaviour problems in the preschool child in urban settings is the mental state of the mother. A wide range of studies have identified adverse influences of depression in the mother either post-natally or subsequently, on poor interaction with the baby (Field 1984; Cox, Puckering, Pound, & Mills 1987), cognitive delay in the child on

entry to school (Cox, Puckering, Pound & Mills, 1987), increase in behaviour problems (Ghodsian, Zajicek and Wolkind, 1984) and increased number of accidents (Brown and Harris, 1978).

Mothers who moved to urban areas are more likely to be depressed, probably through a fragmentation of social support. Richman (1974) found a link between maternal depression and the adverse aspects of the physical environment especially in respect to high-rise flats. Children with a depressed mother are likely to experience greater behavioural difficulties and therefore it could be postulated that children living in non-urban settings are less likely to show behaviour problems and developmental delays.

Aims of the NFDPP were to:

- 1) Establish the prevalence of behaviour problems in 3 year old children (as a proxy marker for the needs of all pre-school children) in an area of both rural and urban dwellings.
- 2) Examine the interaction of the variables, which might influence the development of such problems.
- 3) Compare the rates of psychological problems in urban- and rural-dwelling children and their mothers.

Method

The study was an epidemiological survey of all the children born during July 1987 to end of June 1988 who were resident in a defined area of the New Forest (New Forest East) or the Waterside or Totton area of Southampton, and who were registered with a General Practitioner (GP) for that area. This area of about 200 square miles was composed of the urban areas of Totton, Hythe and Waterside and rural areas with small villages and the small towns of Lymington and New Milton. It was the area serviced by the child and family guidance clinic (CFGC) from the Hythe medical centre.

The local ethics committee gave permission for the project to be carried out (ethics number 59/90).

The GPs are based in the towns and villages and have attached health visitors. There were 35 health visitors (equivalent to 27 whole time) working for the Southampton and South West Hampshire Health Authority, under the same nurse manager. A good relationship had developed between the CFGC and the health visitors through joint work (Thompson & Bellenis, 1992).

Sample

A total of 1618 children were eligible for study. All children in the health district were invited for a developmental screen at their third birthdays. The study was undertaken as a joint initiative with the health visitors and the community health team and took place around this developmental screen.

The health visitors usually invited the families to their child's developmental check by letter. A letter explaining the aims of the NFDP project was included with an invitation to take part. The letter emphasised that not taking part in the study would not jeopardise the family's health care. The study team also had access to data collected by the community health team.

The questionnaire was piloted by the health visitors, to assess whether, if asking the mothers to fill in forms and bring them to the check would interfere with the clinic appointment with the health visitor. Ten health visitors (a representative from each GP practice) were asked to fill in a questionnaire over three clinics. The time estimated by the health visitors varied from adding no time, to adding 20 minutes to the clinic appointment. However all thought the questionnaire was useful, as it gave them the opportunity, if they were concerned about the mother, to check the questionnaires and use them as a topic for discussion. Some mothers used the questionnaires as a prompt to ask

advice about themselves or their child. They were then given a separate appointment (see appendix, for the health visitor pilot questionnaire).

Questionnaires to capture family details, to measure mental health of mothers, and to identify behaviour problems in the children were included, and the parents asked to bring them to their appointment with the health visitor (see appendix, for the questionnaires).

“The family history sheet” asked for information on marital status, employment, family size, housing, maternal and paternal experiences of their child’s early years, development of the child and parental health. Two exploratory items of unknown reliability and validity were added to see if they helped to identify parents who were “vulnerable to having difficulties with their children”. These were whether the mother saw her own childhood as having been 'unhappy' and whether the mother remembered the child as being 'non-cuddly' as a baby.

The parents of the children were also asked to complete the following standardised questionnaires concerning the child's behaviour and the mother's mental state:

Behaviour Checklist (BCL; Richman,1977) (this is a 19 item scale, the speech items from the original scale were omitted as the health visitors collected other measures on speech), covering problems in young children, a score of 10 or over indicated problems of significance, where 0 = no problem or few problems; 1 moderate degree of problems; 2 major problems in each domain).The scale was developed in the Waltham Forest Study (Richman, Stevenson & Graham,,1982) and validated against the Behaviour Screening Questionnaire (BSQ) used in that study. Clinical interview confirmed that the BSQ picked up 100% of the children thought to have significant behaviour problems, the BCL picked up 82% of the children, there were 6.8% false positives with the BSQ (12% BCL) and the BSQ missed 9.8% of the children (BCL 30.4%). The BCL was thought to be a useful screening tool by its'

authors though it might miss a significant number of disorders, especially those which were mild; the EAS Temperament Questionnaire Buss & Plomin, 1984) which looks at emotionality (children who fuss and cry a lot), activity, shyness and sociability, each with 5 items on a Likert scale of 5 giving a score out of 5 for each sub- scale; Weiss-Werry-Peters Activity Scale (W-W-P (Routh, 1978)) a 27 item scale with items of activity in the daily living of 3 year olds, (score, 0,1,2); the General Health Questionnaire-30 item version (GHQ, Goldberg, 1978) that looks at mental distress over the last 28 days, (we used the scoring system 0,0,11). This has been well validated and has been used in many studies.

The health visitors collected the forms from the families, and encouraged those that had not completed them to fill them in. The research team then collated the returns from each of the health centres.

Data was available on 1047 children, representing 65% of the total population. The missing data was due to 163 (10%) families explicitly refusing to complete questionnaires; 365 (23%) families who were sent forms a second time but no returns were made; and 43 families who were known to have moved.

As we had only captured 65% of the population we compared the sample of our children with the total sample from the same time span on data available from the child health database, in order to try to establish whether we had a representative sample of the population. Data for all children who were born between 1st January 1988 to the 30th June 1988 was available on the community child health data-base (921 children). The 504 of the NFDP sample of children in the same time span were compared with the data on the total 921 children. On a wide range of measures such as obstetrical history, peri-natal events, parental physical and mental health, and developmental and health checks at nine months and at 3 years of age, there were no important differences between the rates for the two groups of children, with the

frequencies in each category in both groups of children being within 2% or less. The children in the NFDP study were thus thought to be representative of the population of 3-year-olds living in the area.

Child, maternal and family characteristics

Prevalence and associated variables were established.

Frequencies were calculated for the items on the behaviour problems, and for the frequencies of the sub-scales of the EAS scale and Routh activity scale.

All the measures were reduced to a binary form (i.e. present or absent).

From the answers to the questionnaires, children were classified according to the following binary variables:

Manual social class: based upon the social class of father's occupation using the Registrar General Classification (1980).

Unhappy childhood (mother): mother's response to the question "Would you describe your own childhood as happy, unhappy or very unhappy?" Any response of unhappy or very unhappy was counted as an unhappy childhood.

Lone parent: any child who was living with the mother alone either because the mother was single or the father was absent through separation, divorce or death.

Maternal disturbance: used to describe mothers who obtained scores of 4 or more on the GHQ. A cut-off of 7 or more was used to identify mothers at risk of depression.

Behaviour problem: a score of 10 or more on the BCL.

Difficult temperament: a score of greater than 3 on the Emotionality scale, and either a score of 1.5 or less on the Sociability scale or greater than 3.0 on the Shyness scale from the EAS.

Overactivity: a score of 4.5 or more on the Activity scale of the EAS and a score of 20 or more on the W-W-P. The use of these two criteria provided an operational definition of overactivity that reflected both the more global

ratings from the EAS scale and the report of a wide range of specific items of overactivity from the W-W-P.

Perceived early cuddliness: based on the mother's response to the question "Was your child cuddly or not cuddly as a baby?"

The justification for restricting the variables in this way was in part to simplify the presentation of the results and partly to facilitate the multivariate analysis of categorical data in further analysis, by limiting the number of categories and thereby avoiding small cell frequencies. The potential cost of this procedure was to lose information in the more continuously distributed measures. However the pattern of bivariate relationships was not changed when unrecoded measures were used.

Ecological measures

Data was available from the 1981 census to identify whether the child was living in an urban or a rural area. The ward in which the child's home was situated was identified. For each ward, 'household density' and 'population density' per km² (Total population/ per area in km²); the percentage of households not owning a car ('car ownership'); 'overcrowding' (defined as more than 1.5 people per room); and the prevalence of 'amenities' such as hot water and indoor toilets was calculated. The Jarman Index (1984), a scoring system for identifying areas of social need within a population, was available for each ward.

Each of these indices was linked to the data on mothers and children listed above. The ecological measures were then converted to z scores and reclassified according to whether wards were more than 1 SD above the mean, between 1 and - 1 or below - 1 SD. This tripartite classification identified children as belonging to wards with high, average and low degrees of disadvantage respectively.

In order to reduce the number of ecological indicators in the analysis, a principal component analysis was conducted, without rotation, on the six variables in their unrecoded form. This identified three factors with eigen values greater than 1.0 which explained 42%, 24% and 18% of the variance in the variables. The first factor loaded on the car ownership, household density, population density and overcrowding (referred to as the 'urban/poverty' factor). The second factor loaded only on the Jarman Index ('Jarman' factor) and the third only on amenities ('amenity' factor). The scores on these three factors were recoded into the same tripartite form as the individual variables, as described above.

Results

Over 80% of the children were seen within 3 months of their third birthday. The mean age of the children was 3.12 years (range 2.94 to 3.98). Age was not significantly related to any of the child behaviour measures.

Prevalence rates

The rates of the family, maternal and child characteristics are shown in Table 1. There was some missing data as some families had not filled in parts of the questionnaires. These base rates should be consulted for comparison purposes in the accounts of associations between variables.

Table 5.1
Distribution of child and maternal and family characteristics in the sample population

	N	%
Questionnaires available		
Manual social (971)	328	39.5
Unhappy childhood (mother) (1026)	130	12.7
Lone parent (1007)	91	9.0
Maternal disturbance (1005)	277	27.6
Behaviour problem (1020)	138	13.2
Difficult temperament (1030)	69	6.7
Overactivity (1026)	118	11.5
Perceived absence of early cuddliness (1009)	169	16.1

When the conditions are considered in combination, 626 (59.8%) families were experiencing no child or maternal difficulty. In a core of 102 families (9.7%) there was both maternal disturbance and at least one of the child problems: behaviour problems, difficult temperament or overactivity. A larger group of 247 families (23.6%) had a child with at least one of the child problems.

Table 2 indicates the percentage of children presenting by temperament score.

The findings are useful to use as normative data for clinical practice.

Table 5. 2

The percentage of children presenting by scores for temperament (EAS scores)

(%)Temperament score EAS (0 to 5)	≥3	≥3.5	≥4	≥4.5	5
Emotionality	31	14	8	4	1
Shyness	32	11	4	2	
Sociability	85	50	29	11	1
Activity	95	85	65	48	19

The following table (Table 3) indicates the percentages of children who had significant problems for each of the areas of behaviour on the BCL. (Hooper & Thompson,1997a)

Frequently miserable or irritable	1.6
Worries: sometimes worries for short periods	29.7
Many different worries	3.5
Fears: some fears	33.7
Very fearful	0.9
Relationships: some difficulties with brothers or sisters	14.6
Gets on badly with brothers or sisters	0.3
Some difficulties with other children	16.3
Finds it difficult to play with other children	0.5

Interrelation of temperamental problems and behaviour problems

Problems occurred in combination more often than would be expected by chance. A child with one problem was more likely than other children to have associated problems. Significantly more children who showed difficult temperament also had behaviour problems (33.3% v. 12.35%, $\chi^2 = 22.39$, d.f.= 1 $p < 0.0001$). However, difficult temperament was not significantly associated with overactivity (14.6% v. 11.4%, $\chi^2 = 0.36$, d.f.=1, ns). There was a strong overlap between overactivity and behaviour problems: 45.8% of children with overactivity had behaviour problems whereas only 9.4% of children who were not overactive had behaviour problems ($\chi^2 = 113.81$, d.f.=1, $p < 0.0001$).

Interrelation between child and family measures and area of residence (Table 4)

The percentage of children from manual social class families was compared across the urban/rural areas (Table 4). Areas with a low score on the urban/poverty factor had a significantly lower percentage of manual social class families. Neither of the other two factor scores showed a significant difference.

The Jarman and the amenities factors did not show any significant relationship with the child and family measures and these results have not been tabulated. Just one measure (perceived early cuddliness) was related to the urban/poverty factor -children from areas high on this factor were more likely than children

in areas low on this factor to be perceived as not cuddly (21% v 9% respectively).

It may be argued that these summary indices disguise the real impact of the urban environment on families. Accordingly the closest pure measure of urbanisation (i.e. population density) was examined separately. The results show that, for this indicator also, there were no significant differences in the rates of child or maternal problems.

The only ecological indicator to show significant differences was that of overcrowding. The rates of behaviour problems were higher in areas where more families were in overcrowded accommodation. There was also a significant tendency for overactivity and perceived early cuddliness to show the same effect.

Table 5.4
Interrelation between child and family measures and area of residence
(%)

Number	Urban/poverty factor			Overcrowding			Population density		
	Low	Average	High	Low	Average	High	Low	Average	High
Manual social class (328)	31.7	42.7	39.2*	32.3	41.6	45.8	30.3	42.3	40.0**
Unhappy childhood (mother) (130)	12.3	13.2	10.5	13.1	11.8	17.8	10.7	12.2	13.9
Lone parent (91)	9.3	8.7	9.1	10.4	8.5	8.3	9.7	9.0	8.2
Maternal disturbance (277)	30.4	27.5	26.9	28.8	26.9	35.2	28.3	28.1	27.2
Behaviour problem (138)	12.4	13.3	16.2	14.8	12.3	24.7*	12.4	12.4	16.6
Difficult temperament (69)	5.3	7.0	7.3	6.	6.9	6.9	5.8	7.2	6.2
Overactivity (118)	10.1	10.7	14.4	9.4	11.0	19.2**	10.8	9.7	14.4
Perceived absence of early cuddliness (169)	9.4	17.4	21.4*	11.7	17.7	21.6**	10.6	17.8	17.6

Low -1SD: High +1SD

*P< .1, **P< .05

How good were the health visitors at picking up children with problems?

We had health visitor returns on the behaviour problems on 380 children. The NFDP staff considered 34 children of these children had problems over the cut off on the Behaviour Checklist. Of these the health visitors thought that the children had no problems in 29. The health visitors were concerned about another 13 children, ten of whom they were going to keep under observation with another child already in the system and a new one to be referred. The children that did concern them were children with hyperactivity and conduct disorder which is appropriate.

Discussion

There were striking similarities in the rate of behaviour problems in this population and that found in a more urban population of young children (Richman *et al*, 1982) i.e. 14% and 13 % respectively. Richman and colleagues used interviews (the BSQ) and this study used a self report questionnaire (BCL) which, potentially, could have the drawbacks already outlined, of missing some more minor cases. The rate in the New Forest might therefore be higher. The level of Maternal disturbance in the New Forest was 27.6%, somewhat lower than that found in urban populations, using the GHQ (42% in Hounslow and 45% in inner London (Stevenson & Simpson, 1989)). Our findings showed that, although behaviour problems were related to difficult temperament and to overactivity, the latter two were not related.

The findings from the use of the temperament scale would be useful to use as normative data for clinical practice. For example only 5% of children would be seen to have a score of 4.5% on the emotionality scale, indicating the most temperamentally fragile children; 6% of children would have a score of 4 or more on the shyness scale indicating the most shy children. If the two scales for hyperactivity were taken separately only a score of 5 would give a cut off for 19% of the children, indicating overactivity rather than the clinical concept of hyperactivity. Percentages for the WWP, the Routh Activity scale, suggested that 18% of the children had a score of over 20 in this community sample (cut off taken as significant by Routh,1978).

The analysis of urban/rural differences suggested that there was no readily identifiable effect of neighbourhood on the rates of child or family problems. This was not unexpected as far as the children's behaviour was concerned (Quinton, 1988), but it was surprising that maternal disturbance did not show a tendency to be more prevalent in the more disadvantaged areas.

The only indicator that showed a consistently higher rate of problems was overcrowding. This might be most parsimoniously explained by suggesting that being in overcrowded accommodation itself represented a risk factor for problematic behaviour in the child. The elevated rate of problems in areas where overcrowding was more common was, therefore, not so much a macrolevel ecological effect but simply a cumulative result of more individual families experiencing that adverse effect. Ghodsian et al (1984) has previously identified the significance of overcrowding in behaviour problems in pre-school children, a finding that added weight to this explanation.

There were a number of limitations to the present findings. First, they were obtained using largely self-administrated questionnaire methods. It would be preferable to have had interview data on the children's' behaviour, particularly to establish the extent to which the behaviours reported created social impairments for the child and the family. Second, the data came solely from mothers; confidence in the findings would be enhanced by similar data being available from other informants who knew the children well. Lastly, the data was cross-sectional. Although the poor medium-term outcome of pre-school problems has been established in an urban population (Richman *et al*, 1982), the natural history of difficult behaviour in the present population may differ. Clearly, longitudinal data would add greatly to an understanding of the significance of the behaviour problems identified in this study. (Subsequent to this study, a follow-up of a representative sample of children from the NFDLP at 8 years of age found that overactivity diagnosed at age three years, from the BCL subscale, was the main predictor of ongoing behaviour problems (Sonuga-Barke, Thompson & Stevenson and Vinney, 1996)).

Accepting the above constraints on interpreting the data we thought this study indicated that families in non-urban areas were just as likely to experience difficulties with their children's behaviour, and with maternal mental state as those living in large conurbations. This, therefore, had important service implications.

The prevalence rates found in this New Forest survey were indicators of potential demand for services from families with young children. The health visitors seemed to pick up the most serious problems, but possibly were missing potentially serious difficulties. It is known that a substantial proportion of families experiencing difficulties would welcome some advice, support or treatment (Richman *et al*, 1982). What we needed to do was to try to develop interventions that would work with these children in both a research and a clinical setting. As sleep problems had been a significant reason for referral from health visitors to the clinic and they featured as a problem in over 10% of children in the community survey, I applied for and obtained a grant from the South and South West Regional Health Authority to evaluate a treatment package for children aged 2 –4 years with sleeping problems. (Chapter 6). We also set up our young child clinic with the same assessment questionnaires as we had used in the New Forest Study, as we now had population norms for them (Chapter 7).

Further work was also done on the data and the sample, but is not presented here. Copies of the relevant papers are available in the Appendix (Sonuga-Barke, Stevenson, Thompson, 1996; Stevenson, Thompson and Sonuga-Barke, 1996; Sonuga-Barke, Lamparelli, Stevenson, Thompson, and Henry, 1994; Sonuga-Barke, Stevenson, Thompson, Lamparelli, & Goldfoot (1995); Sonuga-Barke, Thompson , Stevenson, and Vinney, 1996).

A grant was obtained from the Department of Health to follow up a subset of these children and families when the children were 10 years, The Parenting Strategy Project (Stevenson, Sonuga-Barke & Thompson, 1995-1997; Thompson, Raynor Cornah, ,Stevenson & Sonuga-Barke, 2001 (submitted)

Recent work by two Specialist Registrars Russell Nelson and Jenny Brown, under my supervision have looked at the variables found in the questionnaire results taken at three years of age form children in the NFDp and used them to

try to determine predictors of referral in the Child Guidance Service (Nelson, Brown et al. presentation to the Royal College of Psychiatry Child Psychiatry Meeting, York September 2001).

CHAPTER 6

The development of focussed strategic work: the sleep project

In this chapter I will discuss the prevalence of sleep problems (SP) in children, with particular references to SP in pre-school children. I will outline the evaluation of a treatment package for children aged 2-4 years, where the parents wished the SP to be treated. This project was designed and the therapy planned by myself (with support from David Coggon, then Senior Lecturer in Occupational Health, University of Southampton), Lorna Polke (LP) research health visitor carried out the therapy and collected the data and scored the diaries. She inputted some of the data. I did the statistics.

The importance of sleep problems in young children.

Sleep difficulties in the young child were reviewed by Bax (1980). He suggested that 20% of children wake during the night up to the age of 2 years, with 10% of children still waking through the night at 4 ½ years. He suggested that it was a problem in Western culture, where babies do not sleep with parents.

Prevalence

Richman (1981), using as a sample frame the computer listing of all children under five living in a London Borough, sent a questionnaire to the parents of a random 1 in four 1-2 year olds, asking about their children's sleeping patterns. There was a 67% return rate (771 children). The questionnaire covered sleep problems and their frequency and duration: settling behaviour, (going to bed), waking in the night, going into the parents' bed. The parents were asked if sedatives had ever been used. The returns indicated that 154 (20%) of the children woke 5-7 times a week, in addition 73(10%) of the children had severe problems, defined as waking 5-7 times a week, but also waking 3 or more times a night for at least 20 minutes and/ or going into their parents' beds, with the non-sleeping problem being present for at least three months.

This clinical interview indicated that 6 % of her original children had a severe SP, which met the criteria. Richman estimated, taking into account non-responders who might also have poor sleeping patterns, that 13% to 20% of

children in a community would have poor sleeping patterns, with 6% to 10% having severe problems. There were no sex differences in the prevalence of children who were non-sleepers (8.7% of girls and 10.3% of boys).

In the NFDLP (Chapter 5), a survey of the sleeping patterns of a community sample of 3 year old children found that 6% of the 3 year olds took more than an hour to settle at night, 10% frequently woke through the night (at least 3 times a week) and 10% frequently slept with parents.

Co-morbidity of problems

In a follow up to the community study of children with sleep problems (Richman, 1981), parents of 55 children with a severe SP and parents of 30 children, a sample of those identified as having no SP, matched on age and sex, were visited at home by a trained observer. The families were asked more in depth questions about the child's sleep pattern, social background and general behaviour and were asked to keep a sleep diary. Mothers were asked to fill in a Malaise inventory (Hirst, 1983), which had been used in community studies such as the Isle of Wight Study (Rutter, Tizard and Graham, 1962) to gauge parents mental well being. A score of 7 or over distinguishes those who would have a problem from those who do not. The mothers also completed a questionnaire concerning the temperamental characteristics of the child : mood, intensity of mood, activity level, malleability, approach, rhythmicity, and sensitivity. This last questionnaire was modified for this age group from one developed by Carey (1970).

11 children (20%) of night wakers in the study by Richman (1981) were said to be sensitive to noise compared with 3 % of controls. The children with SP compared with those without, were more likely to have behaviour problems and particular food fads. The children were also found to be less malleable and less likely to have developed a recognisable rhythm to their habits. These children were therefore more tricky children to parent compared with controls, and already had other behaviours as well as SP that caused concern to parents.

Compared with controls they were also more likely to have had accidents (attendance at the GP or at Accident and Emergency Departments) (40% vs.

17%, $p < 0.05$), which could of course, have been for a variety of reasons, e.g. fatigue on the part of parents or a child who was difficult to control. In the wakers group, mothers were more likely to be highly stressed and there were more family stresses. There was no difference in social class or in housing between the wakers, and the non-wakers, families.

Co-morbidity with SP in childhood is a common finding. In another community study of 3 year old children, Richman, Stevenson and Graham (1982) found an increase in behaviour problems in their non-sleeping children.

Aetiology

Most sleeping problems occur because a settled routine has not been established, often in a household where routine for parenting in general does not occur e.g. regular mealtimes (Douglas and Richman, 1984). However some children find it particularly difficult to achieve a sensible sleep pattern and parents have to work even harder with these children.

In the community study of 1-2 year olds (Richman, 1981), 55 waking children were compared with non-waking children (30). The children with SP were more likely to have had more adverse peri-natal events (30% v 16%) than the controls and were reported to be more irritable in the first 9 months (38% v 17%). 46% of the wakers had had sleeping difficulties since birth, they were more likely to be only children (44% v 17%, and if the child was a second child, there had usually been a problem with a first child. This might be recall bias.

Co-occurrence of behavioural problems, as well as high levels of parental stress and maternal distress were found in children with SP. It was difficult to establish which came first. Some workers have stressed that there might be an underlying neurological abnormality in the brains of poor sleepers, e.g. Blurton Jones et al (1978) or a temperamental trait with high or very low arousal patterns present in these infants (Carey, 1970). This might have been mediated through the mother's response to a crying child, which set up

patterns for the child to cry to “obtain” the parent (Bernal, 1972). Bernal studied 77 mother-child pairs who came from a medically low risk group. There were 20 first babies and 57 second babies. The mothers were interviewed pre-birth, and during the first 10 days after the birth with the mother-child pair being observed and crying recorded on days 2,3,8,9 and 10. The mother was also asked to keep a diary during the 10 days to note the patterns of sleeping, eating and crying. There was a peak in crying between 6 pm and midnight. The mothers had some difficulty in recognising the reason for the crying. Mothers of second babies responded quicker and usually by feeding and their babies cried less in total. Breast feeding mothers responded quicker also and usually fed their infants, their infants were more difficult to settle especially if the child had just been fed. The author thought that first time mothers responded slower as they had been advised to keep feeding to every four hours.

Natural history of sleep problems

Jenkins, Owen, Bax, & Hart (1984), in their longitudinal study, described the persistence of sleep problems. For example, 21% of one year olds woke at night, which they suggested was the peak time for sleeping problems; 17% were still waking at 18 months, (1/4 of the original sample), 10% regularly; 10% at 2 years; 11% at 3 years and 6 % at 4 years. Five percent of the total sample woke throughout till 2 years of age.

They presented their data as a “probability tree”, as described by Plewis (1980) who suggested that the best way of describing measurements of stability was by using dichotomised variables. With this method, the presence or absence of an attribute at any one point of time can be related to the presence or absence of that attribute at a second or third point in time. From this conditional probabilities can be calculated.

Jenkins and colleagues calculated that the chances of being a night waker at 2 years were higher if the child had been a night waker at 1 year. Two thirds of

the night wakers at one year were night wakers at either at 18 months or 2 years.

In a longitudinal study of 56 children with sleep difficulties taken from a community sample of children of 308 at 8 months of age (Zuckerman, Stevenson and Bailey, 1987), 41% of those who had a sleep problem at one year of age still had a sleep problem at 3 years. Only teething problems at 8 months predicted a SP (27% v. 14% $p > .04$). Continuity was predicted by the mother's mental state. The persistent group were more likely at 3 years to show a poor attention span (9% v 3%), to be hard to manage (22% v 0%) and to show persistent temper tantrums (22% v 0%).

Blurton-Jones et al (1978) recruited 59 (34 boys and 25 girls) developmentally healthy children through health visitors. All had been born between February and October 1971. All parents were in social classes I and II. All were only children, from two parent families and no mother was working full-time. The mothers were interviewed for the first time at 15 months and again at 21, 27, 33 and 39 months. The parents were asked how often the child woke up and the duration of his sleep during the night. The mother was asked about perinatal events and the maternal and babies' records were checked. The mother was also asked about their newborn's characteristics in the early weeks, in particular the child's crying pattern (how many times did the child cry between feeds; at what time did he cry most; how much did the child sleep during the day; how much did the child wake during the night?). These answers contributed to an active child score.

Children were divided into children with no points on the active child score (39 children) and those with 2 or more points (20 cases). Parental management of the child's waking was discussed. Fifteen of the 59 children (23 %) were categorised at 15 months as regular night wakers (waking two, three or more times a week). The frequency of waking at 15 months was strongly associated with waking at each time point (Spearman correlation 15 months x 21 months 0.30 $p < .002$; 15 months x 27 months 0.36 ($p < .001$); 21 months x 27 months 0.34 $p < .001$). Thirteen children out of 59 at 21 months (22%) and 16 children of 57 at 27 months (28%) were regular wakers.

The mothers were also observed picking up their babies when they cried at 15 months of age. Mothers of wakers picked up their babies more often than non-wakers (U test $p=.05$). Babies who had more peri-natal problems cried more and were picked up more (U test $p>.001$), but there was no difference in this group between wakers and non-wakers. However the authors said that children with more adverse peri-natal factors and early crying patterns were likely to be non-sleeping children at 15 months.

Richman, Stevenson and Graham (1982), in their community study of three year olds found that behaviour problems in three year old children predicted continuity of SP disorders from 3 years to eight years. Forty eight percent of children, who had co-existent behaviour problems and settling or night waking difficulties at 3 years, still had sleep and waking difficulties at 8 years.

Impact of non sleeping in children on their families

Scott and Richards (1990) found, in a community sample of children aged 18 months recruited by referral from health visitors and General Practitioners, that 10% of mothers whose children were waking 5 nights a week or more did not consider this a sleeping difficulty. Few parents with children waking in the night in the community study of Richman et al (1981) study complained to their physicians. This might mean that the referrals to clinics might be influenced by other factors as well as the SP concomitants that influence the referral.

For example Kaplan, McNichol, Conte & Moghadam (1987) looked at the sleeping patterns of children with ADHD and found them not to be very different from non ADHD children, but suggested that parents perceived them as different. In the first of three experiments, 40 children (30 boys and 10 girls children) who had been diagnosed as having Attention Deficit Hyperactive Disorder (ADHD) by their paediatricians and referred to a children's hospital were matched with 40 control children (30 boys and 10 girls, who were not thought to have a problem by their parents). The parents were asked two

questions: does your child get an adequate amount of sleep, and is he or she up one or more times a night?

A quarter of the control group parents answered yes to both questions. Sixty percent of the parents of the ADHD group of children answered yes to the first question ($\chi^2 \{1 \text{ df}, n=80\}=8.64 \text{ } p<.01$ and 38% answered yes to the second question ($\chi^2 \{1 \text{ df}, n=80\}=0.93$ (non-significant). This suggested that parents with a child with ADHD thought their children were poorer sleepers than parents with non-ADHD children

Their second study sought information from parents of non-referred children with ADHD and those without. Only boys were chosen. Letters were sent to parents in 100 day centres scattered in all four quadrants of a city. Parents were sampled from all social classes (parents of boys whom were thought to be active and also parents of children who were thought to be children without difficulties). Two questionnaires were used to confirm group status, one with questions from the DSM III criteria, which allowed for a diagnosis of ADHD symptoms, and a symptom questionnaire. 116 children met the criteria for ADHD and were one SD above the mean on the symptom questionnaire (age 53.7 months \mp 10.2 months). 88 children were without ADHD, did not meet the criteria for DSM 111, and were less than one SD above the mean on the symptom check list. No child was on stimulant medication.

Parents of children with ADHD reported statistically more sleeping difficulties, (difficulty falling asleep, more night waking, woke early, cried out during the night).

In a third experiment the researchers asked parents to keep a diary for 21 days to record: how long it took their children to fall asleep at night (checking them every 15 minutes); the number of times the child was up during the night and for how long (the parents were told they should not stay awake to check this); the length of time the children were asleep during the day recorded by parents or day carers. The researchers recruited 25 children with ADHD age (53.7 \mp 12.5 months of age) and 27 children without (52.4 \mp 10.8 months of age), who had been the first 27 to respond to a letter asking them to take part in a three

week study of sleeping patterns. Again only boys were chosen. The 25 children with ADHD were a subset of the 116 children with parents who had been willing to take part in a longer study, and their DSM 111 scores and symptom check list scores matched the total sample of 116 children. No child was on medication.

The first week of recording was discarded in case the results were skewed. Normal children had longer daytime naps, children with ADHD slept for longer at night, but children with ADHD woke more often at night (mean 0.13 times v .07 times a night). Both groups of children took as long to settle before falling asleep. There was no difference in the total amount of sleep during 24 hours (644 minutes for ADHD children and 639 minutes for non-ADHD children. The authors thought that the fact that the children with ADHD did not nap during the day and were up more often at night contributed to fact that the parents' perception was that the children were poor sleepers, as the parents must also have felt fatigued. They suggested further research should use an independent method of measuring sleep, for example polysomnography, which would confirm the sleep patterns and also give more information, as not all children with ADHD were poor sleepers (only 25% in the last study averaged at least one waking a night).

Treatment methods

Therefore some parents, but not all, were distressed by their children not sleeping through the night or stressed if they took a long time to settle.

Drugs have been used widely for the management of sleep problems.

Ounstead and Hendrick (1977) reported that by 18 months, 25% of first born children had been given sedatives.

Russo, Gururaji & Allen (1976) examined the effectiveness of diphenhydramine given to 50 difficult to settle children aged 2-12 years over a 1 week period, in dosages of 1 mg/kg. They found the drug more effective than a placebo in reducing the time needed to fall asleep and the number of times the child wakened during the night, but the actual time spent asleep was not affected, perhaps because the drug only acted for 4-6 hours.

Richman (1985) used trimeprazine tartrate, a sedative commonly used in young children, and a placebo, in a double blind trial of children with severe waking problems.

The children were identified in the community survey (Richman,1981) outlined above, of children one to two years old, whose parents had filled in a questionnaire about their children's sleep pattern. The parents were asked at the follow up interview if they would take part in a drug trial. The parents of 22 children agreed to take part in a drug treatment. The parents of the children kept a sleep diary for 2 weeks as a baseline.

The children were given two weeks of drug or two weeks of placebo in random order, with the instructions to give one spoonful of the "medicine" to be increased after 3 nights if there was no change. The medicine or placebo was given for two weeks with two weeks in between. The medicine bottles were identical and the code was not broken till the end of the trial. Twenty one children had the drug and the placebo (one child vomited up the drug and so was withdrawn from the trial).

Parents were supported by telephone or visited fortnightly throughout the trial.

Although parental verbal reports suggested significant improvement on the drug on 17 occasions, compared with only 4 occasions on the placebo, sleep diaries kept by the parents indicated that the children were still waking regularly during the night, although the average sleep diary score went down on the drug compared with the placebo (8.6 v12.1 ($P<0.01$) and baseline compared with drug (12.4 v. 8.3, $p< 0.01$); settling 41% improved v 9% $p<0.05$; night waking improved 73% v 29% $p<0.05$).

As would be expected, when not taking the drug any improvements in sleeping patterns were not maintained, with children showing persistent sleep problems on follow up 6 months later. Fourteen parents were contactable. It was not possible to get diaries from the other 8 parents, so these children may have been sleeping well, but of those with sleep diaries, 9 were still reporting problems 5-7 nights in the week.

The author suggested that, in her opinion, drug treatment was of limited benefit, and if used, should only be used in the short term. She suggested that behaviour methods should be considered.

Treatment methods were discussed in chapter 2 and, in summary, involve training parents in understanding the problem, breaking the problem down to a series of steps, and working out what piece of behaviour to ignore or reinforce by praise or reward. Parents often inadvertently rewarded the behaviour they wished to stop, for example feeding a crying child through the night

More recent studies worked with the child-parent pair and gave the parent clear instructions, usually written. These work on the premise that improving the mother- child relationship will achieve the better short term and long term effect. Ideas for use in the future to prevent problems starting up again were offered.

Richman and colleagues (1985) set up a trial of treatment for sleep problems with strict entry criteria (age of child to be between 1 to 5 years; the sleep problem had to have been there for at least 6 months; the problem had to occur at least 4 times a week; if it were a settling problem, it had to last at least an hour in duration; or if it were a night waking problem, it had to occur at least 3 times a night or for more than 20 minutes in duration or the child had to go into the parents' bed. Children were recruited via health visitors.

Parents kept a sleep diary for 2 weeks before the trial started, information was collected from the parent, the parent filled in the Malaise Inventory (Hirst, 1983) a questionnaire that assessed mothers' emotional well being and the Behaviour Checklist (Richman,1977), to establish the child's behaviour pattern.

The Families were randomly assigned to one of six therapists for up to six sessions over a six month period, following an initial analysis of the sleeping problem and the setting of targets. There was no control group.

Outcome measures were the diaries kept throughout rated, by the therapists and one other member of the treatment team, and the parents' rating of

improvement on a four point scale, target reached, marked improvement, slight or no improvement.

Thirty five children were treated, with five dropping out before treatment was completed. The children were aged 12 to 48 months (mean 22 months). The mothers of the five dropouts had higher Malaise Inventory scores than those that stayed in treatment. The average number of treatment sessions was 4.4. In 27 (90%) children improvement was rated as complete or markedly improved, with 24 maintaining improvement at four months (for two children no information was available). For three children there was little or no improvement. Sleep diary scores were not given so that mean differences in scores were not calculated. Outcome seemed to be a parental opinion of whether their child had improved.

As there were only nine children with behaviour problems in that study it was not possible to know what influence behaviour problems would have had, though the sleep problems of six out of the nine children with behaviour problems markedly improved or reached target. The level of maternal distress on the well being scale did not influence improvement.

As this study did not contain a control group, the improvement may have happened by chance.

The therapy used in the above study was further developed and set out in a treatment manual (Douglas and Richman, 1982). Parents were first given an explanation about the aetiology of sleep difficulties, about sleep physiology and children's sensitivity to noise, and it was also explained that children are rarely anxious, so that parents need not feel guilty when a child cries.

Discussion about sleep maintaining factors were included, for example the reinforcement of feeding a crying child during the night. Behavioural methods were then explained: the techniques of *extinction*, gradually reducing the amount of attention given on waking by parents; *reinforcement* for desired behaviour such as staying in bed, using star charts for praise; *shaping*, e.g. gradually making bed time earlier, and *cueing*, e.g. establishing a bedtime routine with good effect. The authors suggested that support by face to face

follow-up or by telephone was essential to support the parents in the new pattern of behaviour.

Work in a specialised sleep clinic, set up in a paediatric unit with a multi-disciplinary staff group indicated useful measures of change using these methods over a period of 5 years. A total of 183 children were seen. No outcome measures were available on 22 children. 132 children (82% of the rest) had a successful outcome of waking less than twice a week and settling in less than an hour on parental report (Bartlet, Johnson and McGrigor, 1992). One to eight sessions were offered, although 65% of the treated cases attended twice or less. It was not manual led, so that not all families would have received the same advice. There was no control group.

In contrast, however, Scott & Richards (1990) found that written information with or without advice, was not shown to change the night waking patterns of 18 months old infants, thought by their parents to have night waking problems, referred by health visitors. The 90 infants, with their parents, were randomised into three groups, an information only group (30) (a booklet giving information and advice about treatment of sleeping problems; an information and advice group (30) (3 visits at 3 weekly intervals over 3 months with the booklet; a group with no intervention (30) (i.e. no information and no visits); a fourth group, who were regarded by their parents as having no night waking problem (30) and referred by health visitors to match a non-sleeping child referred (they were not given any visits or advice). Each child and parent was visited once for an initial assessment and the parent was asked to fill in a sleep diary for one week before treatment, and a further four sleep diaries for one week at 3-4 weekly intervals throughout the 3 months of the study. They also filled in a maternal anxiety scale (IDA, Snaith et al, 1978) and a General Health Questionnaire 28 (Goldberg, 1978). All parents were revisited at the end of the three months.

They authors did not find that giving advice in any shape made a difference to the waking patters of the children. The authors thought that sleep problems

were resistant to change. The number of times the child woke up did correlate with the score on the GHQ indicating that mothers reported feeling less well if they were up frequently at night.

The New Forest Study (chapter 5) had indicated that sleep problems were present in at least 10% of the population of three year olds and referrals indicated that health visitors were referring an increasing number of children with these problems to the clinic. We wanted to ascertain if we could develop a treatment approach to these problems with a trained health visitor from the community. If the method worked, we could train health visitors in the techniques and transfer the treatment of these problems back to primary care.

Aim of the project

We aimed to evaluate a treatment method, delivered by a research health visitor, which would treat children age 2-4 years who presented with a sleep problem. The main outcome measure would be the change in a sleep diary score from before treatment to the end of follow up (at 8 weeks) in the treated group compared with the control group. The effect of maternal mental health, child's temperament, the presence of child behavioural problems and the presence of adverse birth events would also be examined.

Method

The project was approved by the Southampton and South West Hampshire Ethical Committee.

Referrals into the project were invited from general practitioners, health visitors and from parents (by advertising in the local papers and by posters in health clinics).

Exclusion criteria were families whose first language was not English; families who were living in bed and breakfast accommodation; families with major psychosocial problems resulting in a referral to social services.

Following referral, the family's health visitor was sent an explanatory letter about the project and a sleep diary to give to the family to fill in over a one week period (a modified version of the one used by Douglas & Richman

(1982). The family's health visitor briefed the family about the project, explaining that all families would be seen, but that some would wait for treatment (control group). Parents whose child's sleep diary score was 11 or over were accepted into the project (see appendix). The children were stratified into a) two age bands- 2 year olds and 3/ 4 year olds and b) source of referral, health visitor/ general practitioner or self-referral as they might be determinants of outcome.

Families who had agreed to take part were interviewed at home by L.P., both parents together if possible, to assess the problem. Following the interview and having confirmed that the sleep problem met the criteria for the project (a score of 11 or over on the diary), LP opened an envelope which stated whether the family should be given treatment or stay as a control family. MT, using random numbers, prepared the envelopes earlier.

The intervention group had an extended interview to analyse the sleeping problems and set goals. The families were then met at home for one-hour sessions, weekly, if possible, for 8 weeks. The Sleep Treatment Manual by Douglas and Richman (1982) was used to enable the goals to be set and strategies to be offered. Various factors, which might be preventing good sleep patterns, to be established were explored with each family, e.g. night feeding or putting a child to bed asleep. Both parents (or a supportive relative) were interviewed if at all possible, to establish that they both agreed on policy. Tasks were set for each family, depending where the difficulty was e.g. work on shaping to help settle a child without a parent having to be there at all times. Usually, settling problems were dealt with first, before tackling night waking. The families were re-interviewed at 8 weeks, 13 weeks and at 26 weeks after the end of treatment. Sleep diaries were kept for the week before each interview.

Families in the control group were told that they would have to wait for treatment until the end of the 8 weeks, but they were asked to keep a diary for the 8th week and interviewed at the end of that 8th week. (They were then

offered the treatment package and visited again at 8, 13 and 26 after treatment, with schedules being completed as before).

Questionnaires

As other workers have highlighted the importance of mother's mental health (Scott and Richards, 1990) and the temperament of the child (Blurton-Jones et al, 1978; Richman, Stevenson & Graham &, 1982) as being variables to be considered in either the aetiology or maintenance of sleeping problems, we assessed the mental health of the mothers, the temperament of the children, any co-morbid behaviour problems present and adverse obstetric and perinatal events, both at the start of the project and, as appropriate, at the end of the 8 week package and at two time points post-treatment, in order to establish if these measures contributed to the severity of the sleep problem or influenced its recovery

The families were interviewed using a standardised interview schedule adapted from Douglas and Richman (1982) covering the severity of the problem and its duration, the sleeping routines of the child and the background and current information on the family, including housing.

The mothers filled in the *Beck Depression Interview* (Beck et al, 1961) (scored 0,1,2, a score of 13 to 20 indicated mild depression; 21 to 30 indicated moderate depression; 31 or greater reflected severe depression), the *Behaviour check list* ((Richman, Stevenson and Graham, 1982) to establish whether any co-morbid behavioural problems were present in the child (a score of 10 or over indicated problems of significance) the *Routh activity scale* (Routh 1978) child and *EAS* (Buss and Plomin, 1984) (which estimated temperamental traits).

To estimate whether *Neonatal problems* were present, questions were asked to elicit information about birth weight, pregnancy, labour, the birth, and the health of the baby after birth. This enabled us to derive a composite score of low birth weight (below 2500 grams), problems surrounding the pregnancy, labour, birth or peri-natally, which would affect the baby, similar to the method of Douglas & Richman, 1982. (see **appendix for questionnaires**).

The *sleep diary* was the one developed by Douglas & Richman (1982): a score of 11 or over was taken to be indicative of a sleep problem.

Statistics

The main change score was the change in the sleep diary score between week one and week eight with the treatment group compared with the control group. Unfortunately the control group was treated after the end of week eight so comparisons between groups for long term follow up could not be made.

As we expected 70% of families to improve to a score of 5 or less as compared with 10% in the control group, we needed 25 in each group to have 99% power to show statistical difference at the 5% level. The influence of predictor variables for change was examined as far as possible with the numbers available. These variables included sex and age of the child; source of referral; duration of the problem; mother's depression; temperament and activity level of the child; influence of neonatal problems.

Independent and paired sample t-tests (Pearson 2-tailed) were used when appropriate.

Chi squared tests were also used.

RESULTS

Ninety seven referrals were received. Of these 45 were not accepted as there was no diary returned in 22; the diary score was too low in 13; for eight families the timing was not appropriate for the family, (one family was about to move house; in three families other problems in family were thought to be more pressing; three families had a new baby and the mothers did not want to work on the sleep problems in their other child, one mother had a psychotic illness and was not deemed suitable for the project); in two families the problem had resolved before the diary was sent.

Fifty two children were therefore randomised into a treatment or control group. There were 31 male and 21 female children. The mean maternal age was 29 years (SD 4.1) and mean paternal age was 43 (SD 24.7).

Eight families did not complete the project after they had been visited and randomised (5 in the control group and 3 in the treatment group) (three did not want help; four moved and could not be traced: three went into bed and breakfast; one moved with the army: and one mother could not cope with separation from her child.

Table one compares means of various factors of the children in the whole group (52), the group that stayed in the project all the way through (44) and the drop-out group (8).. The only difference between the groups was that mothers and fathers in the drop-out group were younger than the total group or the treated group.

Table 6.1
Comparison of means of various measures of the total randomised group, the group that completed treatment and the children and families who dropped out after randomisation *P=< .05

	52 children randomised	Treated group 44	8 children dropped out
Age of child	2.5 (SD .64)	2.59 9SD .66)	2.3 (SD .46)
Mother's age	29.2 (SD 4.1)	29.8 (SD 4)	*26 (SD 2.7)
Father's age	43 (SD 24.7)	41 (1.7)	*26.8 (SD 1.9)
Not living with both parents	8 single mothers	5 single mothers	3 single mothers
Sleep score	14.6 (SD 2.6)	14.5 (SD 2.4)	15 (SD 3.5)
Activity score	23.1 (SD 9.8)	22.2 (SD 9.6)	28.4 (SD 9.6)
BCL	10.6 (SD 3.1)	10.3 (SD 2.9)	12.6 (SD 3.2)
Beck score	9.5 (SD 7)	9.4 (SD 6.7)	10.8 (SD 8.5)
Shy	2 (SD .7)	2.5 (SD .74)	2.3 (SD .6)
Emotionality	2.8 (SD 1)	2.8 (SD .9)	2.8 (SD 1.2)
Age of start of SP	12.8 (SD 9.8)	12.32 (SD 9.99)	15.3 (SD 8.4)
Duration of SP in months	22.9 (SD 12.6)	24.3 (SD 12.6)	17.6 (11.9)

Table 2 compares the original means for the child and parental variables including sleep diary scores, sorting the groups into referral source by age and Table 3 sorted by age band of child and whether the child was in a treatment

or control group. (All variables showed a normal distribution). Parametric tests were used to compare means (Pearson's two tailed).

No significant variables were found in groups sorted by referral source and age.

However in Table 3 the mothers' age was lower in the control group and the Beck score was higher.

Table 6.2

Means by source of referral and by age

Mean(SD)

Referral source	Activity	BCL	Beck score	Mother's age	Father's age	married state	Emotion ality	Sleep
2 years								
GP/HV 13	19.9 (5.60)	8.9 (3.3)	9.1 (7.)	29.3 (4.7)	32.3 (6.1)	1 not married	3 (1.2)	14.2 (2.7)
Self referral 9	20.0 (8.59)	10.8 (2.1)	10.7 (6.8)	29.4 (3.4)	35.1 (5.2)	2 not married	2.5 (.8)	16.0 (1.9)
3/4 years								
GP/HV 17	24.9 (12.2)	11.4 (3)	9.5 (7)	30.5 (3.8)	34.3 (5.8)		2.9 (.9)	14.1
Self referral 5	22.4 (9.94)	9.4 (1.52)	8 (4.1)	29 (4.6)	31 (5)	1 not married	2.8 (.6)	14.6 SD 1.7

Table 6.3
Means by age and by treatment and control

	Activity sc	BCL	Beck sc	Mother's Age	Father's age	Emotio nality	% Married	Sleep sc
Whole group44	22.2 (9.6)	10.3 (.9)	9.4 (6.68)	29.8 (4)	41 (1.69)	2.8 (.9)	5 no dads	14.6 (2.4)
Treatment group 26	21.2 (9.5)	9.4 (2.9)	7.6 (5.7)	30.8 (3.7)	33.5 (6.2)	2.8 (1.)	1 no dad	14.7 (2.2)
Control 18	23.6 (9.8)	11.7 (2.5)	*12.1 (1.3)	*28.3 (4.2)	33.5 (4.9)	3 (.8)	4 no dads	14.3 (2.8)
Treatment 2 years (14)	17.8 (6.1)	8.2 (2.5)	7.3 (3.8)	30.4 (3.2)	32.5 (5.7)	2.8 (1.1)		14.9 (2.2)
Control 2 years 8	26.1 (8.2)	12.4 (2.7)	11.2 (8.5)	26.4 (4.)	31.9 (6.5)	3. (1)	3 no dads	15 (3.3)
Treatment 3/4yrs 12	22.8 (12.9)	10 (3.2)	7.0 (7.5)	31.1 (4.2)	34.7 (6.3)	2.7 (1)	1 no dad	14.5 (2.2)
Control 3/4 yrs 10	25.2 (11.3)	11.8 (2.8)	12.5 (6.8)	29 (3.4)	31.9 (4.5)	3 (.6)	1 no dad	13.8 (2.6)

The other important finding was that the initial sleep scores were not significantly different if the children were grouped by age, referral source or by treatment or control group. Thus, for calculations, the means were compared for two groups, treatment and control since the randomisation was effective.

Forty four children stayed in the project till the end. There were 18 two year olds; 18 three year olds; 8 four year olds. Their mean age was 2.59 years (SD .66). The mean duration of the sleeping problem was 12.32 months (SD 9.99). Twenty four children (55%) had a score of 20 or over on the Routh Activity Scale and would be seen as overactive children. Eleven children (16%) were thought to be high in emotionality by their mothers (a score of four or over). Twenty five children (57%) had a score of 10 or over on the BCL indicating a

high pattern of co-morbid problems. Eight mothers' scores on the Beck Inventory reflected mild depression; three moderate depression (25%). No mother scored for severe depression.

The mothers were also asked about their use of medicine to help their child's sleep problem and how effective it had been. Three mothers had used it in the past and found it effective, ten mothers had found it partly effective, ten mothers had found it ineffective. Twenty one mothers had never used medicine. Seven mothers were presently using medicine, four had found it effective, one found it partly effective and two mothers had found it ineffective. Thirty seven mothers were not using medicine at the time of entry into the trial.

Parents were also asked questions about how they saw the sleep problem and how they were coping; twenty mothers were coping very well, nineteen mothers thought they were coping only averagely well, and five mothers said they were only just coping. Two mothers said the sleep problem was mild, twenty two mothers said the problem was of moderate severity, twenty said the problem was severe.

The parents were also asked if they had ever lost their temper with their child. Fourteen mothers said they had never lost control of their temper with their child, fourteen mothers had had sometimes thought they might lose control, eleven frequently thought they might lose control, and five said they had lost control. Fifteen fathers said they had never lost control of their temper with their child, twelve fathers had sometimes thought they might lose control, eight frequently thought they might lose control, and four said they had lost control.

The main outcome measure was the differences in the means in the sleep diaries before treatment and at the end of treatment (at the eighth week).

As there was no difference found in the means of all variables in all groups at week one (by source of referral and age at referral) (Table 3) the children were grouped into one treatment group (26 children) and one control group (18 children).

The mean change in the sleep diary score from week one to week 8 was calculated for the treated group and the control group (Table 4)

The difference of the mean sleep diary scores for the treatment group and the control group was just without significance.

Table 6.4

**Comparison of the mean change in sleep diary score of treated group
(week 1 to week 8 versus the control group)**

	Treated 26	Control 18
Mean of change of sleep diary score	6.23	3.33
Standard deviation of the differences	4.97	4.47

Variiances	t-value	Df	2-tail sig	SE of Difference	CI for difference
Equal	1.98	42	.054	1.463	(-.056 to 5.851)
Unequal	2.02	39.06	.050	1.435	(-.005 to 5.800)

As the t-test for comparison of the means was just out with significance, analysis of variance with a simple factorial design was performed. The dependent variable was the sleep score at the end of 8 weeks with the sleep score at week one as the covariant. Treatment or control was the first factor looked at. This was just without significance (Table 5).

Table 6.5
Analysis of covariance using sleep score at week one as covariate and treatment/control as a factor. The sleep score at week eight is the dependent variable.

Source of variation	Sum of squares	Degree of freedom	Mean Square	F	Significance of F
Covariates	2.097	1	2.097	.114	.737
Sleep score week 1	2.097	1	2.097	.114	.737
Main effects	69.951	1	69.951	3.082	.058
Treatment/Control	69.51	1	69.51	3.082	.058
Explained	70.636	2	35.318	1.920	.160
Error	754.364	41	18.399		
Corrected Total	825.000	43	19.186		

To establish whether the mothers' initial score on the Beck Inventory (a proxy measure of mothers' mental well being) affected change in sleep diary scores, this score was added as a covariate also. (Table 6).

Table 6.6 (effect of Beck score)

**Analysis of covariance using sleep score at week one as covariate and treatment/control as a factor and adding the Beck score as a covariate.
The dependent variable is Sleep score at week eight.**

Source of variation	Sum of squares	Degree of freedom	Mean Square	F	Significance of F
Covariates	3.173	2	1.586	.084	.919
Sleep score week 1	2.123	1	2.123	.113	.739
Beck score week one	1.076	1	1.076	.057	.812
Main effects	67.851	1	67.851	3.603	.065
Treatment/Control	67.851	1	67.851	3.603	.065
Corrected model	71.711	3	23.904	1.269	.298
Error	753.289	40	18.832		
Corrected Total	825.000	43	19.186		

This did not change the effect and neither did adding referral source and age as a covariate. Activity levels, behaviour problems, activity levels, neonatal problems' score were added also as covariates in turn with no effect on difference in sleep score.

However adding emotionality as a covariate did make a difference. As can be seen children who have a higher score for emotionality have a higher score for sleep at the end so do less well (Table 7).

Table 6.7

Analysis of covariance using sleep score at week one as covariate and treatment/control as a factor and adding the emotionality as covariate score. The dependent variable is Sleep score at week eight.

Source of variation	Sum of squares	Degree of freedom	Mean Square	F	Significance of F
Sleep score week 1	.876	1	.876	.049	.825
Emotionality	44.510	1	44.510	2.508	.121
Main effects	82.575	1	82.575	4.653	.037
Treatment/Control	82.575	1	82.575	4.653	.037
Corrected model	115.145	3	38.382	2.163	.107
Error	709.855	40	17.746		
Corrected Total	825.000	43			

Parents became less depressed following treatment, children were less active and behaved better.

The Beck, activity and behaviour scores all were lower in the treatment groups at 8 weeks with the activity level in particular being lower in the treatment group. The Beck change scores were just without significance, mean difference 1.65 (SD 5.14) $p = .113$ (95% CI -.42 to 3.73); activity score mean difference 5.31 (SD 6.49) $p = .000$ (CI 2.69 to 7.93); Behaviour Check List mean difference 1.62 (SD 2.89) $p = .009$ (CI .45 to 2.78).

Discussion

This project was set up to try to determine if a predetermined package delivered at home by a specialised nurse would effectively treat sleep problems within a randomised treatment or control design.

Some children got better spontaneously during the 8th week in the control waiting period. Clearly, if those children and parents were referred into a service they would tend to get better in the waiting period for assessment and probably would not keep their appointment, as waiting times are usually at least 8 weeks. Families who tended to cancel or not attend appointments at the young child clinic were often those with sleep problems. Often the act of doing the diary indicates to parents how to sort the easier problems themselves for example withdrawing reinforcement with juice for waking behaviour during the night.

Although the Beck scores were relatively high in the mothers this did not effect whether a child's problem would resolve or not. Neither did activity levels or behaviour problems in the children, although our group of children had higher levels than one would expect for these temperament traits (see chapter 5 for levels in a community sample). Children with high emotionality did tend to do worse as they probably they create more fuss when you are trying to put them to bed. Children with neonatal problems did no worse than other children

This finding was important, because many active children are difficult to settle, but it would appear that resolution is possible with clear behaviour methods.

Many of our parents were finding life difficult and not coping, with thoughts of loss of control. The sleeping problem must have contributed to that.

Very few of our children had been given medication. This reflected the policy in our district that medication should only be used briefly for respite care.

One of the drawbacks of this study was the inability to blind the therapist who also collected the results from the treatment status of the family.

The randomisation was successful, as the groups were comparable on all measures.

The numbers were small, especially in the control group. We had thought that 25 in each group would give us sufficient power to show change.

Unfortunately we had had five families drop out from the control group, and

three from the control group. Had we not we might have been able to show a statistical change.

However, we think this treatment showed clinical improvement in the majority of children, despite the other factors, which might have influenced change.

There has been no other study which has used a randomised treatment with a control design to study behaviour modification of sleep and I think our results indicated that the package was successful within the constraints indicated.

Next steps We have progressed to training health visitors to use the package in their own practice and our referral patterns indicate that sleep problems are rarely now referred into the clinic. If they are, there are usually co-morbid problems with a disturbed mother child relationship or temperamental extremes in the child presenting as well as the sleep problem. Our specialised nurses sort out these co-morbid problems by working alongside the family health visitor. Individual work with the mother is often an additional piece of work that is required along with the sleep strategies. Only very rarely does a doctor need to be involved, thus freeing up this scarce resource for assessment of children with more extremes of behaviour.

CHAPTER 7

Evaluation of a mental health service for young children: development, outcome and satisfaction

Introduction

Following the audit of the original service, set up to work with young pre-school children, the clinical staff piloted a different version of the clinic.

This chapter outlines the evaluation of these changes and describes the way we have set up a nurse led service. All the clinic staff were involved in the changes. The evaluation was done with their help: Dr Susan Blandy (SB), who piloted the management clinic; Dr Sarah Coggon, who worked in the Young Child Clinic and aided the development of the database; Senior Nurses Lorna Polke and Judy Akerman (LP), and Dr Isobel Casson, psychotherapist, whose ideas were very important in the development of the clinic.

The evaluation of the present service was carried out with the help of the nurses and Xavier Coll, Senior Registrar and Suzanne Wilkinson, a student Psychologist working in the clinic. The questionnaire was devised by Xavier Coll with my support; the data was entered by Suzanne Wilkinson and myself; the statistics were done by myself and Xavier Coll with statistical help from Daan Uitenbroek, then research co-ordinator for the Southampton Community Hospital Trust and Aurelio Tobias, a statistician. (The paper is being revised for publication, Thompson, Coll, Wilkinson, Uitenbroek & Tobias,2001)

As has already been discussed, behaviour problems in young children are very common, are persistent and can lead to long-term problems.

Primary care staff, for example health visitors and school nurses, work closely with families and young children and therefore would be in a good position to be partners in this work.

A review of child mental health problems, and the services that were trying to deal with them, suggested that there was no way that all child mental health

problems could be dealt with by the specialist services (With health in mind, Kurtz ed. 1992). Following this work documents from the Health Advisory Service (HAS) (NHS, 1995) and the British Paediatric Association (1996) outlined the need to develop further the skills of primary care teams in mental health care for children. Better partnership between the primary care sector, education and social services, and with secondary care colleagues like paediatricians and child psychiatrists, was encouraged.

The HAS document delineated a “Tier System” of delivering children’s mental health services. Four tiers were proposed. Tier One was to provide the first line of service and consisted of non-specialist primary care workers such as school nurses, health visitors, General Practitioners, teachers and social workers. Tier Two would consist of specialised mental health workers, who, working relatively independently from other services, would take referrals and provide support to the primary care level. These professionals would also work between the primary care level and Tier Three, the multi-disciplinary teams who worked in Child and Adolescent Mental Health Services (CAMHS) and other specialised units. These Tier Two specialists often drew their support from Tier Three services. Finally, Tier Four would be the specialised inpatient units (HAS, NHS, 1995).

We therefore continued to develop the service with the aim of devolving and disseminating knowledge to allow interventions to take place at the “lowest possible level”. We thought that some families with young children with circumscribed problems could be assessed and treated by suitably trained Tier One professionals, with back up and support being provided by Tier Two professionals. Families with more complex problems would be referred to Tier Three for assessment and the development of treatment plans, which could then be implemented at Tier One or Tier Two level if possible. Problems deemed too complex would stay with the multi-disciplinary staff at Tier Three.

An evaluation of the various steps in this development will be outlined; including a questionnaire developed to assess the satisfaction of the families with the clinical work.

There has been a growing interest in the assessment of mental health services by consumers, as it is an important measure of outcome and quality (Subotsky & Berelowitz, 1990; Department of Health 1991; Donabedian, 1992; Stallard, 1994, 1996). It is important that clients are satisfied with the service as this should result in them keeping appointments, in order that treatment gains could be consolidated and monitored.

Burck (1980) found that families, who thought that they had been listened to, had their problems validated, and where their expectations seemed to match those of the clinical staff, were more likely to keep attending. These Rogerian qualities of warmth and being non-judgmental might be assessed by items like “being listened to” and “feeling valued”. If this happened to be an important aspect, the combination of these qualities and strategic behavioural work might be what leads to good outcome and improved satisfaction.

Difficulties in the interpretation of the findings of consumer surveys might arise for many reasons. For example, only selected patients might be surveyed; assessment methods might be liable to bias; there might be a low response rate and / or very small numbers. Also, satisfaction questionnaires have tended to be constructed locally by individual practitioners in isolation and generally resulted in high rates of reported service satisfaction. Assessing the reliability of consumer surveys is difficult, since satisfaction with clinic work might change depending on the length of time since discharge and might be affected by outcome. Differences in ratings might therefore represent real changes in consumer views rather than poor reliability (Fitzpatrick, 1992a). Determining validity is similarly complex since there is no gold standard against which satisfaction questionnaires can be compared (Fitzpatrick, 1992). Another particular difficulty of consumer satisfaction studies relates to the poor response rate obtained by postal questionnaires, the most commonly reported method of assessing consumer views. Typically, they produce a 50 per cent return rate, leading some researchers to question whether non-respondents were more or less satisfied than questionnaire respondents.

This work progressed in stages:

Stage one: 1984-87

This work was described in chapters 3 and 4. The evaluation indicated that the service was a useful resource for the families and health visitors who replied (33%). However, as it was difficult to show effectiveness, it was decided to develop a more rigorous recording of data, including taking measures before and after treatment (Pound and Cottrell, 1989). Additionally, the evaluation indicated that the service would benefit from setting up a clinic dedicated to this age group, to improve integration and support between the various professionals.

Following this audit a young child management clinic was set up to try out different ways of working and to develop assessment and evaluation tools (1987-89). A nurse (JA) and a community paediatrician (SB) on health premises staffed this clinic, but the notes were kept separate from CAMHS records. However, if the families' problems required transfer for more in depth work into the CAMHS service. As the non-attendance for families was high on transfer (50%), it was decided that a young child clinic should be run as part of the CAMHS. The Behaviour Checklist (Richman, 1977) was used as a screening tool but not found useful as a change tool when compared with a 0-7 Likert scale (Griest et al, 1980).

Support for the importance of working with young children came from two needs assessments carried out in 1990-91; the New Forest Development Project (Chapter 5) and a needs' assessment carried out by the local health visitors (Community Health Services Needs Assessment, 1992) which confirmed the findings of the NFDP where the Health Visitors found severe parental mental health and/ or severe behaviour problems to be present in 15 % of pre-school children and their families (The health visitors logged a problem, only if it had been confirmed by assessment by secondary care). The health visitors also highlighted areas of profound social deprivation in the New Forest where many families felt unsupported.

Following the research project into the management of sleep problems (Chapter 6) these strategies were incorporated into the clinic work.

Stage 2 1990-91

In 1990 a clinic was set up within the child guidance system with an operational policy:

1. The age group would be extended to children up to age seven years of age, as an evaluation of the clinic indicated that problems found in the 5-7 year age group were not dissimilar to those in younger children, and therefore the approach might be very similar. Locally a multi-agency “under 8 forum” had been set up to which our clinic had input.
2. Standardised methods of working were introduced which included the use of standardised assessment tools.
3. All patient details were entered into a database as an ongoing management tool (Thompson,1989), with problems and therapy defined using a standardised glossary (Berger et al,1993). Information about parental mood and view of their childhood, mother’s view of the child and the ability of the parents to work together was collected and scored on a five point scale.
4. Screening questionnaires were sent to the family with the first appointment (similar to the ones used also in the New Forest Development Project). These included the EAS temperament scale (Buss and Plomin,1984); an Activity Scale (Routh,1978); and the Behaviour Checklist BCL (Richman, 1977).
5. The families outlined the problems with which they wished help on a questionnaire in the waiting area before the first assessment. The families scored each problem on an un-anchored, 0-5, Likert scale, for each problem (Griest et al, 1980). The clinic staff scored independently for each problem after assessment and at discharge on the same scale. Families were asked to re-score how they found the problem on discharge, to comment on whether they thought they were more able to manage their child than before, what they had thought of their attendance at the clinic, what might have helped things to be better and what other help had they sought. This evaluation questionnaire was filled in at discharge in the clinic if possible, by phone if the family phoned to say they wished not to have another appointment, or by post at discharge.

Clinics were held locally to try to minimise non-attendance and the family's health visitor was encouraged to be more involved with the referral.

A 5-day behaviour course was set up for health visitors and one for school nurses.

The workshops were run in two blocks, so as to allow tasks to be done in between and to encourage the professionals to try out ideas with their own clients. Handouts and worksheets accompanied the course.

In 1991 the first 77 consecutive cases referred into the clinic from January 1990-91, who had had at least one appointment and had completed treatment, were studied to monitor progress and to assess satisfaction with the new service from patients and health visitors. From the patient satisfaction survey and discussions with families it appeared that they liked the service and found it valuable in helping to cope with their children's problems. The families indicated what could be changed. The health visitors found that it had become easier to approach the clinic for help or to refer patients.

However, it was considered that the clinic was expensive in terms of staff per case seen as many families were seen by more than one member of staff and often by a doctor. At the same time, there were an increasing number of adolescents with complex problems being referred to the clinic. These required considerable input by the medical staff.

Stage 3 1994-95

Therefore, in 1994 a nurse-led service was developed at Tier two, in order to improve collaboration with local professionals working with children and to free up medical staff as suggested. Nurses were appointed to each locality. Although none had had a formal mental health training, the four clinic nurses recruited were senior health visitors, all with extra skills (management of sleep problems and hyperactivity, or extensive counselling skills). Patients would be seen mostly, therefore, at Tier two by only one therapist, usually a clinic nurse operating on her own. If necessary, patients would be referred by the professional working at Tier two into Tier three (the multi-disciplinary team).

The course for the local primary health care professionals was developed further into a 7-day generic course with manuals (Hooper and Thompson 1997a, b) for professionals working with all children. In addition, we prepared booklets for parents on a wide range of subjects (Polke and Thompson, 1994 a, b, c, d, e). A research project was undertaken on an evaluation of parenting packages with parents of hyperactive three year olds 1994-97 which was manual led (Weeks, Laver-Bradbury and Thompson, 1999). The paper outlining the parenting project has since been published (Sonuga-Barke, Daley, Thompson, Laver-Bradbury and Weeks, 2001).

Aims of this evaluation

First, we addressed whether the specific changes in service between 1991 and 1994 helped families deal with their children's problems better.

Second, we wanted to attempt to develop a more theoretical insight into factors which predicted good outcome into CAHMS, with the aim of targeting services better and to inform future changes and improvements. To this end additional data was collected.

Third, we wished to assess perception of satisfaction from the families referred to the Young Child Clinic (YCC). This third aim had, in itself, three main objectives: (a) to increase the level of satisfaction of the families attending the YCC; (b) to ensure they were being listened to, their problems were understood, and were able to manage their child's problems; and (c) to identify the aspects the families disliked from their experience with the YCC.

Subjects and Methods

We selected 100 consecutively closed cases between 1st September 1994 and 30th September 1996. We excluded the families that were never seen, and attempted to track down those that had moved away since their case was closed. The families that had moved away and remained untraceable were also

excluded. The study was based on the 88 families out of the original 100 that fulfilled the inclusion criteria (i.e. they were seen at least once, and we still knew their whereabouts). Of those, 60 (68%) completed the questionnaire via a conversation with one of the researchers, 16 (18%) filled and returned the questionnaire by post, with 12 (14%) of the postal questionnaires not being returned.

The 12 families that had moved away from the area and remained untraceable since their cases were closed, or that were never seen, were not different from the ones that stayed in the area after having been seen at least once at the clinic. This was so in terms of gender and age of the referred child, number of therapists, number of children in the family, and number of problems listed by the family at the time of referral.

Data collected

We examined the following variables: social class (HMSO, 1991); age and gender of the child; outcome recorded by clinic and family at assessment and discharge (and for the 1994-6 data only, at telephone follow up); number of problems referred; number of appointments offered and kept; number of therapies and therapists working with each family; activity, emotionality and Behaviour Checklist levels on the child; how “easy” the child was (as measured by the mother); levels of depression of mother; and mother’s perception of her childhood.

Satisfaction questionnaire

A client satisfaction questionnaire (CSQ) was designed derived from existing questionnaires reported in the literature (Larsen et al., 1979; Attkinson & Zwick, 1982; Nguyen et al., 1984; Stallard, 1996). This questionnaire also incorporated feedback from previous satisfaction studies (Larsen et al., 1979; Attkisson & Zwick, 1982; Nguyen et al., 1984, Stallard, 1996), local unpublished audits of service satisfaction, comments from local practitioners

with whom we met regularly and comments from families to us in clinics and at the parenting groups run in the clinic and the community.

As a consequence, the questionnaire consisted of items relevant to both service users and clinicians, provided both specific feedback related to local requirements and overall ratings of satisfaction. In this way, we ensured the questionnaires content (or “face validity”).

The CSQ has 23 questions. Of those, 19 related to satisfaction, whilst the remaining 4 were related to outcome and severity. The 17 fixed-choice questions of the CSQ which related to satisfaction with the service are listed in Table 3. The CSQ also had one open set of questions where the parents were asked, “what was the most/least useful help received”, “what other non professional help had they sought, if any”, and one question “from whom the family would seek help in the future should they need it”. In addition, the CSQ included a question on the usefulness of the guidelines booklets written by clinic staff on overactive children, temper tantrums, crying babies, and sleep problems. The questions related to severity and outcome, explored the severity of the child’s main problem, the child’s behaviour outside the home, and a rating of parental agreement as to how they handled the child’s behaviour.

In selecting the final items, we used the dual criteria of clarity (items not related to information provided elsewhere, and not potentially ambiguous) and utility (results had to be useful to shape clinical practice).

The first question of the CSQ was marked on a five item scale (e.g. “very dissatisfied”, “moderately dissatisfied”, “neither dissatisfied/satisfied”, “moderately satisfied”, and, “very satisfied”), and matched the question asked at the 1990-1 audit as did question 14 in table 3. For all items except for the four printed in italics and the one underlined (Table 3), the item was scored with the lowest score (1) being attributed to the most positive dimension (the most satisfied reply), and the highest score (5) to the most negative (or least satisfied). For the four items in italics, the score was reversed to what appeared in the questionnaire (5-4-3-2-1), whilst the item underlined was scored 5-3-1-3-5.

Families were contacted by telephone if possible to try to maximise the response rate. Prior to the call, families with a telephone were written to in order to let them know the date and time of the telephone call, and to explain the purpose of the study. Clinic staff who were making the telephone call were briefed about not probing and told to emphasise that although they were members of the CAMHS, they had been given the task of reviewing and improving the present service. This was to minimise the favourable reporting that can occur when the person requesting the information is attached to the service in question. Staff did not telephone families with whom they had been involved. The parents without a phone, and those that were not at home when we rang, had the questionnaire sent to them, with a reminder after two weeks if we had had no reply. A random half of the families who replied to our telephone call were re-telephoned one week later to assess the test-retest reliability of the instrument. In all instances we established and made clear that confidentiality and independence would prevail.

Statistical analysis

The Client Satisfaction Questionnaire (CSQ) was entered into a Teleform format (Cardiff Software Inc., 1995), so that the questionnaires could be scanned.

Parametric and non-parametric tests were done where appropriate, using t-test, chi-square test, and Spearman correlation coefficient. Analysis was done using Stata statistical software, release 6.0 (StataCorp, 1999) and SPSS for windows, version 10.

Results

Changes between 1990-1991 and 1994-1995

The main referral problem was management of children's difficult behaviour, 84% (64) 1990-91; 47% (36) 1994-95 ($p < .001$), with sleep problems being

the next most common 10% (7) 1990-91; 47% (36) 1994-95 ($p < .001$). The most common therapy was “strategy therapy” (working with parents to find solutions to difficulties), 48% (37) of all families in 1990-1 and 92% (70) ($p < .001$) of all families in 1994-6. Individual psychotherapy with mothers was offered as the main therapy in 17% (13) of families in 1990-1 and in 8% (6) (ns) of families in 1994-5.

Table 1 outlines the profile of families and children with details of age, gender, demographic details, number of problems referred. Although the clinic was available for children up to their 7th birthday, in 1990-91 only 6 children were over 5 and in 1994-95 no child was over five. More families from social class III manual (HMSO, 1991) and below and more single mothers were referred in 1994-5. Table 2, outlines the attendance record for the families, number of therapies offered and number of therapists working with the families and outcome data. In 1990-91 66% of families attended all appointments in contrast to 1994-45 where only 41% of families kept all appointments. Therefore the attrition rate was double in 1994-95. Fewer families kept all appointments in 1994-5: number of failed appointments/total number of appointments offered, 12% in 1990-91, 24% in 1994-94 (Andrews et al, 1989). Fewer therapists worked with each family in 1994-5 and only one therapy was usually offered.

Table 7.1

**Profile of the children and families attending the clinics 1990-91 and
1994-95**

	1990-91 (77)	1994-95 (76)	
Age	3.01 (SD 1.67)	2.93 (SD 1.35)	ns
Gender	Male: 70% 54 Female 23	Male 62% 47 Female 29	ns
Social class % of total sample social class I to III n-m	52 % (8 single mothers and 2 missing)	32% (20 single mothers 7 missing)	p=.02
Living with both parents	77%	71%	ns
Mother' view of the child	N =77 3.91 SD=.8	N=71 2.63 SD=.78	p=.00
Emotionality	N=28 3.72 SD=1.06	N=53 3.26 SD=1.13	ns
Is the Behaviour checklist scores abnormal?	N=27 Yes = 89% 24	N=49 Yes =71% 35	ns
Is the child active?	N=28 Yes =64% 18	N=48 N= 52% 25	ns
Number of problems of referred	2.81 SD1.2	2.4 SD 1.14	ns

Table 7.2

Appointment and outcome data

<i>Appointment data</i>	1990-91	1994-95	
Number of appointments kept	4.07 SD 3.18	3.5 SD 2.8	ns
Number of families attending more than 5 appointments	34% 26	22% 17	ns
Number of families attending one appointment	20% 15	20% 15	ns
Number of families keeping all appointments	66% 51	41% 31	p=.00
<i>Attrition rates</i>			
number of failed appointments/ total number of appointments offered	43/356 = 12%	86/354 =24%	p=.00
<i>Therapy</i>			
Mean number of therapists	3.01 SD 1.67	1.54 SD .66	P=.00
Number of families seen by one therapists	4% 4	55% 42	p=.00
Mean number of therapies	2.35 SD .91	1.61 SD .57	P=.00
Number of families with only one therapy	13% 10	43% 33	p=.00
<i>Outcome</i>			
	Information available	Information available	
Clinic	78% 60	95% 72	
Mean difference	2.47 SD 1.3 p=.000	2.26 SD 1.5 p=.000	ns
Families	70% 54	91% 69	
Mean difference	2.61 SD 1.5 p=.000	2.39 SD 1.55 p=P.000	ns
On follow up		(80%) 61	
Mean difference		2.16 (SD= 1.88) p=.000	

Effect of therapy

The instrument used for determining change in outcome, was based on the change in score in the 0-5 Likert Scale on the main problem, scored by the family and the clinic independently, at assessment and at discharge.

Combining the scores there was clinic staff and families' agreement on the problem score before ($p=.000$) and after therapy ($p=.001$) (Kappa $p<.0001$).

Effect size was calculated from the change from pre-treatment to post-treatment scores in terms of the standard deviations of the pre-treatment scores for children for whom we had pre and post treatment scores. The effect size for the 1990-91 was 2.55 (clinic, 60 cases) and 3 (family, 54 cases) and the effect size for 1994-95 was 2.1 (clinic, 70 cases) and 1.85 (family, 64 cases).

As a measure of which families did well and those who did not, we took as a cut off those families whose score did not improve by more than 0.3 of the standard deviation of the pre-treatment score. In 1990-91, 5/60 (5/54) families scored less well on the cut off at post treatment scored by both the clinic (and the family) and in 1994-5, 8/70 families (and 8/64 families).

Is it possible to determine what predicts improvement?

To study the factors that might predict the process of providing care, and possibly predict positive outcome, the data for 1991-1992 and 1994-1996 was combined and a correlation analysis was done to uncover possible meaningful relationships.

Although the correlations were low there were some interesting, but not necessarily surprising, significant correlations. If the family said they had been satisfied with their clinic contact, agreed with the referral and thought that the contact had been useful, they were more likely to keep appointments and achieve a good outcome as scored by both themselves and the clinic staff. They were more likely to say they would return to the clinic. Also, the more

seriously the family viewed the problem the more likely they were to agree with the referral, be satisfied with the referral and keep appointments.

Mothers who viewed their child as being very difficult, highly emotional and or being very active were offered more therapies and more therapists were involved. Mothers who perceived their childhood as unhappy were more likely to view their child as difficult. Parents who worked well together and communicated well, found the clinic staff listened better and they felt more understood.

There was no factor in child or parent, (including number of problems referred), that correlated significantly with the outcome. For any variables put into a multiple regression model that produced significant results, most of the variance was accounted for either the clinic or the family score at time one.

We based our calculations on salary scales for 2000 and accounted for the number of therapists per client, the number of appointments kept and added 20% for NHS Trust costs for 1990-91 (Trust costs (10%) and administration and accommodation costs (10%)) and added extra travelling costs for staff in 1994-6, but only 15% for extra costs as there will be less accommodation costs. The approximate staff costs for the YCC were £18,819.6 in 1991-92 (mean cost per patient £244.4), and £1170.54 in 1994-5 (mean cost per patient £154). The appointments were most likely to be held in the clinic in 1991-2, accounting for an increase in accommodation costs, but in 1994-5 the appointments were more often in the patients' home, accounting for travelling and time costs. All nurses live on their patches, which cuts down costs. However it would appear that the cost for the newer clinic would be less than the cost of the earlier one.

The CSQ

The data was compared for families whose questionnaire had been filled in by telephone (60) or by post (16).

In order to look at whether the items measured similar themes, correlation between the questionnaire items and ratings of overall satisfaction, as measured by the CSQ, were computed, with statistically significant correlations ($p < 0.05$) being obtained for 14 of the 17 fixed-choice questions. When assessing the correlation between an item and an overall score, the overall score was computed with that particular item deleted, so that the chance of them being correlated was minimised. There might appear to be wide variations in respondent numbers because certain questions did not apply to families seen at home (i.e. items 5 and 6). Mean scores for the 17 fixed-choice items are presented in Table 3.

Table 7.3. Item analysis of the Client Satisfaction Questionnaire (CSQ) with mean scores, standard deviations (sd) and Spearman correlation coefficients (rho) with overall service satisfaction as measured by the fixed-choice questions of the CSQ.

Questions	Positive				Negative		mean (sd)	r
	1 n (%)	2 n (%)	3 n (%)	4 n (%)	5 n (%)			
1 <i>How satisfied with the service?</i> (N=76)	30 (39.5)	31 (40.8)	9 (11.8)	4 (5.3)	2 (2.6)	1.91 (0.98)	0.83	
2 <i>Did you want referral?</i> (N=75)	25 (33.3)	20 (26.7)	13 (17.3)	11 (14.7)	6 (8.0)	2.37 (1.30)	0.53	
3 Was attending YCC worthwhile? (N=76)	34 (44.7)	25 (32.9)	2 (2.6)	10 (13.2)	5 (6.6)	2.04 (1.27)	0.8	
4 <u>Perceived referral waiting time</u> (N=74)	57 (76.0)	-	12 (16.0)	-	5 (6.7)	1.65 (1.28)	0.24	
5 Atmosphere in waiting room. (N=48)	13 (27.1)	9 (18.8)	22 (45.8)	4 (8.3)	-	2.35 (0.98)	0.04	
6 Waiting period in clinic. (N=49)	23 (46.9)	18 (36.7)	2 (4.1)	6 (12.2)	-	1.82 (0.99)	0.02	
7 Staff efforts to introduce themselves (N=76).	42 (55.3)	30 (39.5)	4 (5.3)	-	-	1.50 (0.60)	0.44	
8 Staff listened to the problem. (N=76)	39 (51.3)	34 (44.7)	1 (1.3)	2 (2.6)	-	1.55 (0.66)	0.61	
9 Staff gave us time to talk. (N=76)	39 (51.3)	34 (44.7)	2 (2.6)	1 (1.3)	-	1.54 (0.62)	0.66	

10	How well did I put across problems? (N=76)	33 (43.4)	35 (46.1)	3 (3.9)	5 (6.6)	-	1.74 (0.82)	0.48
11	Did you think staff understood? (N=76)	32 (42.1)	32 (42.1)	6 (7.9)	5 (6.6)	1 (1.3)	1.83 (0.93)	0.80
12	Contact with the YCC made me feel valued. (N=76)	18 (23.7)	40 (52.6)	13 (17.1)	3 (3.9)	2 (2.6)	2.09 (0.90)	0.81
13	<i>Received help with the problem we wanted help with</i> (N=76)	31 (40.8)	23 (30.3)	1 (1.3)	12 (15.8)	9 (11.8)	2.28 (1.44)	0.84
14	<i>Ability to manage child's problems now</i> (N=76)	33 (43.4)	34 (44.7)	9 (11.8)	-	-	1.68 (0.68)	0.49
15	Learning helped to deal with similar problems (N=76)	26 (34.2)	31 (40.8)	8 (10.5)	6 (7.9)	5 (6.6)	2.12 (1.17)	0.79
16	Would you recommend YCC? (N=76)	37 (48.7)	32 (42.1)	5 (6.6)	-	2 (2.6)	1.66 (0.83)	0.79
17	Would you return to YCC? (N=76)	33 (43.4)	34 (44.7)	5 (6.6)	1 (1.3)	3 (3.9)	1.78 (0.93)	0.87

The relationships between different items of the CSQ were summarised on Table 4 (Spearman). All correlations were significant at $p < 0.01$ except for “staff introducing themselves and whether they thought that referral to the clinic was worthwhile” ($p < 0.05$) and three where no correlation was found “time to talk, and introduce them selves” with “help with the problem” and “introduction by staff” and “how much the family learned from the clinic”.

Table 7.4.

Spearman's correlation coefficients from the item analysis of the satisfaction questionnaire.

	1	2	3	4	5	6	7	8
1 Help with the Problem								
2 Introduce	0.22							
3 Talk	0.43	0.52**						
4 Unders.	0.63**	0.32*	0.63**					
5 Learned	0.68**	0.23	0.43**	0.56**				
6 Listened	0.34**	0.52**	0.68**	0.5**	0.43**			
7 Put across	0.35**	0.38**	0.55**	0.57**	0.36**	0.59**		
8 Worthwhile	0.63**	0.24*	0.58**	0.55**	0.67**	0.48**	0.30**	
9 Satisfied	0.53**	0.17	0.61**	0.61**	0.57**	0.5**	0.30**	0.70**

Key: Helproblem = Got help for particular problem I wanted; Introduce = Clinic staff introduced themselves; Talk = Was given enough time to talk;

Unders. = Felt staff understood the problem; Learned = Learned from contact with YCC; Listened = Felt YCC staff listened to problem;

Put across = Client put across problem well; Worthwhile = Contact with YCC was worthwhile; Satisfied = Satisfied with contact with YCC.

* P<0.05, ** P<0.01

Construct validity of the CSQ was assessed by examining the relationships between feeling understood by the clinician, the family's intention to return to the YCC should the need arise, and the overall satisfaction score. Parents who felt understood by the clinician ($r = 0.80$) and those who would return to the YCC ($r = 0.87$) were more satisfied with the service.

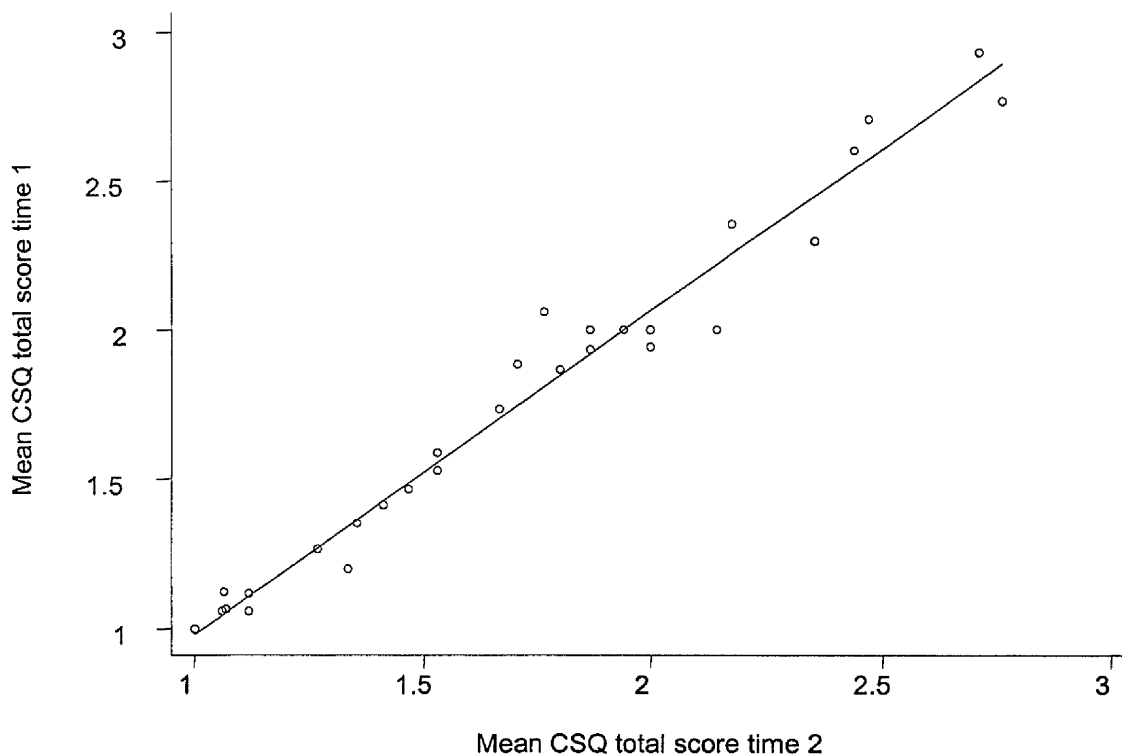
Examining parents and clinicians ratings of perceived outcome and satisfaction assessed concurrent validity. At referral, upon closure, and at the time of the audit, the family identified and rated their problems, and also rated overall satisfaction upon closure and again at the time of the audit. These results were compared with the clinician's own ratings. Therapists and families ratings were well correlated ($\rho = 0.57$ to 0.68).

The internal reliability of the questionnaire was determined by Cronbach's alpha with a coefficient of 0.87 indicating good internal consistency.

The test-retest reliability of the results was derived from a random sample of 30 families who completed two telephone CSQs with a two-week gap in between. The mean CSQ total score for the telephone questionnaires was of 1.75 ($SD = 0.56$) and 1.71 ($SD = 0.51$), respectively. Figure 1 illustrates graphically how well the first and second assessments agreed with each other (Bland & Altman, 1986), being highly correlated ($r=0.98$).

Figure 7.1

Relationship between 1st and 2nd administration of the CSQ via telephone to assess Test-retest reliability of the instrument.



In terms of the overall scores of satisfaction, 74.5% of the sample was very satisfied (mean scores ranging from 1 to 1.94); 23.4% were satisfied (mean scores ranging from 2 to 2.88); and 2.1% were neither satisfied, nor dissatisfied (mean scores ranging from 3 to 3.24). No families were moderately or very dissatisfied. The booklets written by the clinic staff and given to the families, when given, were perceived as “useful” or “very useful” by 87.6% of the families for the sleeping problems booklet; 88.5% for the temper tantrums leaflet; and 92% for the overactivity leaflet.

We asked, “where else do clients get help from, other than the YCC” in the form of an open question. We had 54% (41) comments back. Of those, 61% (25) mentioned the Health Visitor, 51.2% (21) the television, 48.8% (20) from books, having a significant degree of overlapping between those three. In addition, 9.7% (4) mentioned friends or their own family, 7.3% (3) replied

from their GP or the General Hospital, and 4.9%(2) found some help talking to parents with similar problems or reading relevant articles in magazines.

This study also taught us that there certainly was room for improvement. We had 19 comments (25%) received on the question “what was the least useful thing from your experience with the YCC?” In this respect, 31.5% (6) of the families thought that the strategies suggested were unrealistic for them, whilst 26.3% (5) of families disagreed with the diagnosis. In addition, 15.8% (3) of parents felt blamed, and 4 comments appeared on one occasion each: sessions being too long, disliking the presence of the one-way screen, not agreeing with the discharge letter, and disliking the father being asked to leave the room for part of the session. On the other hand, only in three families did this correlate with low change scores, and in two of these, with low satisfaction scores. In addition, 2 of those families had not wanted the referral in the first place.

Joint work with the health visitors has continued (joint appointments or work in parallel). There was joint work between health visitors and the clinic with 57% of the families in 1984-87, it dipped in 1990-91 to 50% and in 1994-95 it rose to 65%.

Discussion

This chapter has outlined the further development of our child guidance service for young children from 1984 to the present, and a preliminary assessment of the validity and reliability of a post-contact parental satisfaction questionnaire in the same young child clinic. In addition, the study assessed the satisfaction of parents attending the service.

In the latest round of evaluations we were particularly interested in the influence of recent changes in the service on outcome, in particular the development of a nurse led service, further devolving work into the community, and reducing the professionals involved in each case from two to one. Davis and Spurr (1998) have described something similar with their Parent Advisor Service. The data shows that the average number of therapists working with each family decreased sharply, as was intended. The cost of the new service (1994-5) was less than that of the previous service.

There was a planned shift in the therapy provided, from a quite diverse package to strategic work for almost all cases. This is similar to the finding from the Scottish audit study, where most therapies offered in their study were short term (Hoare et al, 1996).

The overall results from comparison in both clinics were similar but a few families did not do so well. It is interesting to note that the results from Richman and colleagues (1982) non-treated group of three year olds with problems followed up at four years and at eight years would suggest that 61% of children at three years still had problems at eight years. Our project does not contain long-term follow up data, but over 85% of the children had improved in the short term.

Some child and family characteristics contributed to poorer outcome and this did reach significance in a model in multi-regression analysis. It would appear that families who perceived the child to be very emotionally difficult in particular or overactive, or where the mother may have been depressed, did less well especially if the family had less income. Some of these families also thought that the clinic staff were not listening to them well enough, and often did not find the work useful.

The data also showed clear relationships between patient characteristics and treatment provided. Basically, more treatment was provided if the mother viewed the child as 'difficult', particularly, and/or if the mother herself had psychosocial problems. This suggested that the therapists were adapting the amount of treatment with a good effect on outcome despite the apparent complexity of the case.

The development of treatment packages with overactive and difficult children might provide a better outcome for the families. This constellation of problems could lead to long- term problems, especially if the families were showing signs of strain.

We thought by training primary care workers to try to find these children early we could begin the treatment process. We have shown that as a second line of treatment, nurses from the child mental health working on their own can work

with these families and produce change in the majority. The cost of treating moderate behavioural problems in pre-school children was thought to be £308 in a child mental health service in London in 1993 while treating the adolescents with grown up problems was £2,659, important information which should make us be more inclined to intervene early (Light & Bailey,1993). We should be working more closely with the Health Authorities to point this out and point out that purchasing for Health Gain is important (Stevens & Gabbay, 1991). The cost for our revamped clinic was less than that quoted in Light and Bailey (1993).

It was difficult to be clear why first place the attrition rate was higher with the revamped service, despite offering more local appointments. However, families who did not want the referral were less likely to perceive the work positively. Good briefing by referrers is important and discussion has taken place with referrers to establish that families understand why they have been referred. Our referrers are now asked to show the referral letter to families in order that they will sign saying that they agree to being referred. This may mean that only families who actually want to come will keep the first appointment. It will then be up to clinic staff to establish if the family is ready to work on the issues. Contracts with the family might help aid attendance.

In the future we want to further formalise this process, and further research and study factors which might give an insight into predicting individual needs and developing appropriate therapeutic response. With this aim, we will introduce the HoNOSCA (Health of the Nation Outcome Scales for Children and Adolescents (Gowers et al , 1999a,b) as a routine assessment and audit tool. However, we will adapt the scale to be more useful for young children (Thompson, 1997). Also, we will enable the staff to work differently and provide more intensive work with the more complicated cases, particularly in the case of children with conduct disorders or Attention Deficit Hyperactive Disorder, as there is good evidence that these children may require long term “maintenance follow up” (Kazdin, 1997). Due to the changes made in the service resources can be shifted for this purpose.

Health visitors and other Tier 1 staff are now able to use the Tier 3 clinic staff operating mostly at Tier 2, for advice, as well as colleagues to whom to refer. If possible the health visitors are supported to carry out the work with families themselves or by working alongside the clinic staff, e.g. by visiting the families to re-enforce the strategy work. The health visitors' skills have been further enhanced through workshops and by access to resource manuals. Only the complicated young children are now referred on into the clinic and health visitors and school nurses are carrying out most of the initial assessment and treatment, with support from the clinic nurses at Tier 2.

In operational terms, the use of the CSQ, was encouraging and indicated that the questionnaire appeared to cover the range of issues important to families. The response rate was high (87.5%). Therapist and parent ratings of outcome provided some evidence of concurrent validity. Comparing family satisfaction ratings with the clinician estimates of how satisfied they believe the family to be (Larsen et al., 1979; Stallard, 1996) could assess this further. The concept of construct validity seemed useful in evaluating whether the questionnaire measures what it claimed. In this study there was a strong correlation between feeling understood by the clinician and overall satisfaction, and between the families' intention to return to the YCC should similar problems arise again and the overall satisfaction of the families, as measured by the CSQ.

However, it is important to remember that an inherent weakness of satisfaction studies is the high rates of satisfaction such surveys usually attract. Thus, it is important to note that there were a minority of families that were not satisfied with the service from the YCC and they must not be ignored. Six families (8%) did not want the referral in the first place, and a further eleven expressed negative views about their referral (in total seventeen out of seventy six families (item 2, Table 3)). Good briefing before referral by asking the families to state if they wish the referral, might minimise this problem.

Fifteen families had negative views about the value of attending, at the time of discharge, and twenty-one did not feel that they got help with the problems they identified. Yet only two would not recommend the service to a friend, and only four would not return. We do not know why these discrepancies

occurred. Nevertheless, we could tentatively suggest that the families' willingness to recommend the service could be linked with three aspects: first that 74/76 families were satisfied that the staff had listened to their problems (item 8, Table 3); second, 75/76 families thought that staff gave them time to talk (item 9, Table 3); finally 70/76 parents believed the staff understood their problems (item 11, Table 3). It is not unusual for families to believe that improvement in a problem is despite a clinic, rather than because of it!

It seems that the Rogerian qualities of warmth, emphatic understanding, and being non-judgmental, combined with strategic behavioural work might be what led to the satisfaction of our families. The results of this study are being considered when assessing the Clinic's practice and future directions.

In this chapter I have described the further development of the service for young children with the aim of describing the various steps and developments we made towards developing effective, responsive and innovative ways of working in the community. Basically such a process should be a two way learning process for all involved, clinic and primary health care staff. Research alongside practice has become an important aspect of this work. The development of child mental health services should be gradual, and be based on a process of careful experimentation and evaluation. All participants, primary health care, teachers and social workers, and clinic staff should be able to see the value of developments and support change, which should be evidence based if at all possible.

CHAPTER 8

Summary and further developments

This Thesis outlined the setting up of a service for children under eight. We set up the service to try to integrate better the primary health services for children with child mental health services. We therefore discussed with the managers of the health visitors and school nurses how best to achieve these ends. With their advice and support we ran workshops for them, which developed into a 7-day course (Chapter 3,4,7). Manuals were produced to provide practical ideas, which the primary health staff could use with their families (Hooper and Thompson, 1999a,b). These manuals will be produced as a book as there is no practical manual for primary health professionals. The 7-day course will be developed into a MSc module as there has been a demand from primary care professionals to improve their skills in this area.

Monthly support groups were held in localities for nurses and community paediatricians joined them.

Following feedback from families and colleagues we realized that families liked to have written material available and so written booklets on common childhood problems were prepared after a survey of what was available by other authors with a grant from the Association of Child Psychology and Psychiatry and from the Health Authority (Polke and Thompson , 1994 a,b,c,d,e,).

The work with the young children identified particular problems with children with extreme temperaments especially those with hyperactivity. As outlined in Chapter 2 hyperactivity is a major predictive factor for ongoing behaviour problems in children and a major aetiological factor in the development of severe conduct disorder in adolescence.

This led us to devise a parent training package for parents of a community sample of hyperactive three year olds and delivered in parents' homes as part of a random controlled trial comparing two treatment modalities with a control group. This study was funded by South and South West R & D (Sonuga-Barke, Daley, Thompson et al 2001a). The therapy was based on the work we had done with parents of hyperactive children, which clearly indicated that they saw their children as being very difficult (Chapter 7) with sleeping difficulties (Chapter 6) and did not understand that these children needed a different approach.

The first study led to a second study, which involved training 17 health visitors in the community to undertake the work. This time the package only produced clinically significant change in a third of the families (funded by the MHF) (Sonuga-Barke, Daley, Thompson & Laver-Bradbury, 2001b). From this we learned that for the package to work, the health visitors needed time to carry out the interventions and needed time for consistent supervision similar to the findings of Weir and Dinnoock (1988).

This work has led to the health visitors running their own behaviour clinics, parenting groups and drop in clinics in surgeries, community bases and schools. School nurses are also working with children in schools doing counselling with children and anger management and social skills training. All this work is supported by our senior nurses and other members of the clinic team.

A further development was closer work with schools (The Priestland Project) supported by a Standard Funding Education Grant in order to run parenting groups in infant schools and develop group work with 9 year olds based on social skills training in order to prevent bullying in schools. Whole school policies were developed with initiatives to improve social behaviour in the playground, the usual setting for bullying. Research in secondary schools has suggested that the qualities of the school, the structure, the attention and the focus of the teachers, the style of leadership of the head and senior staff, the policies for discipline and for relationship building including anti-bullying

policies lead to improvement in the behaviour of the pupils and the learning outcomes (Rutter, Maughan, Mortimore & Ouston, 1979). There is every reason to believe that the same would apply to primary schools also (Sylva,1994).

The Sleep Project enabled more work to be done in the community by nurses with non- sleeping children. A medical student has looked in depth at the sleeping patterns of hyperactive children.

The needs assessment in 1990-91(Thompson et al,1996) made available a cohort of children for follow up as outlined in chapter five. Two Specialist Registrars have looked at the factors that would have predicted referral into the child mental health service for 77 children who had been referred into the clinic up to the age of 12 years. They were able to use the 945 non-referred children as a comparison group. Predictive factors at three years of age were poor maternal mental health, young age of mother at the birth of the child, hyperactivity and behaviour problems in the child (Nelson, Brown,Thompson,Sonuga-Barke & Stevenson, presentation to the Royal College of Psychiatrists, Child Psychiatry Faculty Meeting, September, 2001). This is similar to other studies for example Richman and colleagues (Richman, Stevenson & Graham, 1982), who found maternal mental health and distractable behaviour to be predictive factors for continuation of behaviour problems in their community study of three year old children, at follow up, at eight years of age.

This highlights yet again the importance of temperament and its interaction with maternal mental health and the requirement to try to work with families as early as possible.

The development of the work with the young children, reduced the referral rate of under fives into the clinic from 20% at its peak (1994) of the total clinic referrals of 0 to 14 years of age to under 10% (2000). The total referral rate for 0-16 years came down also as we relied more on our community colleagues to take more of the simpler children's problems on board (700 in 1998, 600 in

1999 and 523 in 2000). The biggest drop in referrals was in the primary age referrals 0-11 years. The numbers for the 12-16 years have not shifted, with the rate of referrals in this age group only changing by 25 in total in this time span (1998-2000). This has allowed the clinic staff to spend more time on the referrals of older children who are more complex and usually more worrying, with the need in this age group for risk assessment of danger to themselves or others.

Prevention of future mental health problems

The challenges of the 21st century will be the care of children in care. If parents can parent better, possibly fewer children will end up in care. On the other hand if better assessment can take place children might be taken into care at a younger age and not present with the impossible challenges of disaffected unhappy and often very challenging adolescents (McCann et al, 1997; Richardson & Joughin,2000).

Many behaviour problems in young children are influenced by poverty, 24% of the population live on an income half the average and one in four children live in families without a non-working parent (Wise, 1998). To change this status for children and their families requires imaginative thinking across government departments (Acheson, 1998).

Children have to learn to cope more than ever with family breakdown and changes of parents.

Work with parents might well demand relating to more than one father and, possibly, mother, in the first five years of the child's life. As consistency is such an important part of sound parenting this becomes a challenge for the parents and the health professionals.

Clinic staff need to work harder at enabling families to stay within the treatment process without missing treatment sessions or stopping treatment prematurely. Kadzin et al (1997) used a Barrier to Treatment Participation

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Clinic staff need to work harder at enabling families to stay within the treatment process without missing treatment sessions or stopping treatment prematurely. Kadzin et al (1997) used a Barrier to Treatment Participation Scale (BTPS) to try to elicit why families did not complete treatment plans. Independent researchers interviewed 260 families with children aged 3-13 years before and at the end of treatment. Treatment was tailored to child and family needs and usually consisted of parent training and individual cognitive work for the child. Child and Family factors and critical event information

were also collected. Although poverty, parental psychopathology, child characteristics and critical events factors were important predictors of non-attendance or drop out, independent factors on the BTPS were also important, for example “difficulties of attending, finding babysitters, getting the child to do the “homework” for the session, not agreeing with the work to be done and not receiving the help they expected from the clinic, treatment that did not seem to work, the families perceived the therapist not to understand them or their problem, or the families did not like the therapist”.

Some of these factors were picked up in our satisfaction survey in Chapter 6 and will require our staff to consider them when offering appointments to families. On the other hand, as outlined in Chapter 6, offering home visits at times suitable to families did not cut down the attrition rate. There may be a value in making the clinic appointment have a rarity value to make the family need to commit.

The roots of challenging adolescent behaviour and criminality begin in childhood with 40% of 7 and 8 year olds with conduct disorder developing conduct disorder as children (Scott,1998; Farrington,1995). Indeed Farrington suggested that health visitors might have a place in assessing and starting the treatment process in this early difficult behaviour. These children cost money to the education services with learning support, school exclusions; cost money to social services because of family breakdown; cost money to their parents with time off work to look after their excluded children; and to health services when they are referred for treatment. If the children go on to have problems in adolescence and young adulthood, there could be court and prison costs, unemployment benefit, housing costs and, in turn, their own children may be referred to health clinics.

We thought by training primary care workers to try to find these children early we could begin the treatment process. We have shown that as a second line of treatment, nurses from the child mental health service working on their own can work with these families and produce change in the majority. The cost of treating moderate behavioural problems in pre-school children was thought to

be £308 in a child mental health service in London in 1993 while treating the adolescents with grown up problems was £2,659, important information which should make us be more inclined to intervene early (Light & Bailey, 1993). We should be working more closely with the Health Authorities to point this out and point out that purchasing for Health Gain is important (Stevens & Gabbay, 1991). Our clinic costs less and hopefully should be value for money.

The government has set up many exciting initiatives to try to address the issue of early intervention especially with the Sure Starts. Hall (1992) has suggested however that it is important to target families with problems and children with behaviour problems rather than offering, for example, parenting to all. The evidence is, that for real change to take place, the families with serious problems should be targeted. Hall said also that interventions should, if at all possible, be evidence based. The next task is to identify the parents with difficulties and then enable them to want to come for help. Yet Hall (1992) also stated that routine screening of children should not take place, with the argument that screening should only be done for rare conditions or common conditions when intervention is possible. However behaviour problems are common, are treatable and treating them before they become intransigent might prevent a burden of major problems in the future on the state and families (Kadzin, 1997).

Health visitors are in a good place to screen using an easy to use and valid tool and can provide immediate intervention and start an ongoing process. Families also trust their health visitors and have good access to them when their children are young. Many Health Authorities are considering how best to invest in their primary health services, and many primary care services are moving in to be part of general practice. It would seem a good opportunity to revisit the health visitor role and enable those that are interested and have the skills, to work with behaviour problems.

However there are barriers to families seeking help from friends or professionals. Pavuluri and colleagues (Pavuluri, Luk & McGee, 1996) looked at the barriers, which prevented families accessing professional help looking,

at the “levels and filters” (Goldberg & Huxley, 1980). The population of Dunedin (90,000) was stratified into high, middle and low socio-economic areas (Department of Statistics). Eight pre-school centres were chosen from random number tables, the centres were representative across the social classes. They recruited 320 pre-school children from these eight preschool centres. 274 parents agreed to be interviewed (85.7%), 2 children were excluded as the questionnaires were incomplete, 272 children were the sample for the first stage.

The parents completed questionnaires concerning socio-demographic background, pre-school behaviour problems (Behaviour Checklist, BCL, Richman, 1977, tested previously on New Zealand children with a good validity) a Hyperactive Questionnaire (HAS) (based on the DSM-III criteria for attention deficit disorder) an Internalising Disorder Scale (IDS) (a six item scale devised by the authors, “often cries easily”, “demands a lot of attention”, “becomes upset easily”, “fussy”, “refuses to go to pre-school” and “becomes shy or anxious in the presence of strangers”; internal validity was good and the score correlated with the clinical diagnosis in the second stage) and service utilisation for these problems (covering what services they had used and if not what prevented them seeking help or attending an appointment if offered one; a list of 16 reasons was offered with provision for the families to give their own also).

In the second stage, 64 cases (a score of 8 or over on the BCL, 8 on the HAS and 4 on the IDS) and 64 matched controls were interviewed using the Behaviour Screening Questionnaire (Richman et al, 1982) and the child was interviewed using the modified Graham and Rutter Interview (Graham & Rutter, 1968). There were no refusals at this second stage. The interview then assigned a clinical diagnosis of behaviour disorder, using Richman, Stevenson and Rutter (1982) categories of nil, dubious, mild, moderate and marked). Inter-rater reliability was checked on 20 cases (κ value .86).

53 parents had sought help (19.3% of the sample) from a variety of sources. Half had sought help from specialists, and if they had, they had always also sought help from friends or pre-school staff first. The predictors to help seeking were a high score on the BCL, the BCL internalising symptoms subscale, the BCL externalising subscale, and the HAS. The IDS scale did not predict seeking help. Various socio-economic factors also predicted referral: parental separation; low income; and multiple adversities. With logistic regression the HAS score was significantly related to help seeking. Eighty two percent of the model could be correctly defined by this score.

34 parents (12.5% of the 272 parents) mentioned barriers to seeking help: parents thought the child would get better by himself (27, 79.4%); the parents thought they should have the skills to sort it (20, 58.8%); or it was not appropriate to seek help for pre-school children (32.4%, 11%). Some parents did not know where to get that help (13, 38.2%); or thought that no one could sort the problem (12, 35.3%). Various other reasons were given including the possible expense, transportation, the clinic's hours and the kinds of questions that might be asked.

The authors looked at the level and filters of the 42 children who had a clinical diagnosis at the second stage. Two major constrictions were identified. The first was at recognition of the problem where only 45.2% (19) of the cases were recognised by parents. Only 17 parents (40%) crossed their perceived barriers to consider help. Only 8 parents (19%) of the parents with a clinical diagnosis (mild, moderate or severe) actually reached the services. Only 8 parents (12.5%) of the parents whose children's problems were above the cut off on the BCL received help, the same barriers, on questioning applied to them.

The authors concluded that one in five parents sought help and one in eight sought help from more than one source. The parents were more likely to seek help if the child had externalising problems. They stressed that parents with problems of their own were less likely to seek help. They also stressed, that as many parents had discussed the problem from more than one agency, that it

was important that professionals involved with pre-school children should work together. They also highlighted the need to train the agencies that are involved with young children so that they are aware of the problems presenting in young children, the barriers to parents seeking help and also what interventions work.

Other current challenges on the horizon are how to meld the findings from genetic studies, with evidence of significant genes emerging for Hyperactivity (Curran et al, 2001) for a social cognition gene Scourfield, J. et al (1999), and a gene for empathy (Mathews et al, 1981; Rushton et al, 1986) with the work to enable vulnerable youngsters and their families to work through their genetic load and environment.

Sonuga-Barke and colleagues selected one hundred and six children from a sample of the children from the NFDLP (Chapter 5). The children were selected by having a score above 20 or more on the Werry-Weiss-Peters Hyperactivity Scale (Routh, 1978) top 10%, the hyperactive children 25 children, children who had a score of 3 or more on the conduct scale of the Behaviour Checklist (Richman, 1977), top 10%, 26 children, 30 children with a mixed disorder, control children with no problem in either domain and matched with a conduct child by age. The hyperactive 3 year olds were found to have lower General Index of Development Score (McCarthy, 1972) than non hyperactive, conduct disordered or mixed hyperactive/conduct disorder children (Sonuga-Barke et al, 1994) and their parents had lower educational expectations for them than had parents of non-hyperactive children (Sonuga-Barke et al, 1995).

Thus identifying these children early and minimizing the effects of their hyperactivity on their family and for themselves would be important.

New research on parenting has looked at the importance of parental strategies, which emphasized the internalization of moral principles and positive behaviour and also the principles of how parents teach their children these strategies. It is important to incorporate these new ideas into clinical practice.

Webster-Stratton and Hammond (1999) looked at the links with marital conflict and overt critical parenting and parental emotional responsiveness. They examined 120 parents and their children aged 4-7 years looking at mothers and fathers separately. The parents were observed interacting in the laboratory playroom trying to solve two family problems, as well as at home interacting under more natural conditions with each other and the children. Marital conflict management style and child conduct problems with peers and parents were directly affected or mediated by mothers' and fathers' parenting style (critical parenting and low emotional responsiveness).

Behaviour self control in children was found to be predictive of a positive outcome in a review by (Campbell, 1995). Positive self-regulatory outcomes in children was maximised under conditions of responsive and authoritative parenting (high demands were put on children within a non-controlling manner and accompanied by clear limits and consistent discipline). This provided support for children's autonomy. On the other hand overcontrolled, harsh discipline, without cueing in and responding to the child's direction was associated with impulsivity, non-compliance, attention deficit disorder and behaviour problems.

Gardner et al, 1999 outlined the important principle of preparing children to be occupied when parents were busy and studied how parents did that. This principle is to do with helping children learn and incorporate strategies that they will use even if the parent is not present. Grusec and Goodnow (1994) in a very useful review outlined various research projects that try to look at this and have highlighted the importance of parents working at the level of a child's understanding, with ideas that make sense to the child and are within the child's normal understanding as to what he should expect of a parent. The work is usefully outlined in the figure below.

Figure 8.1 Features of Parental disciplinary actions promoting accurate perception and acceptance (internalisation) of a parent's message (Grusec & Goodnow 1994)

<p>Clear redundant consistent messages Fitted to existent schemas (understandable relevant not tangential) Child's attention captured Requires decoding which prompts comprehension Meta-rules made clear Importance to parent is signalled Positive intention conveyed</p>	→	<p>Accurate perception of message (including content, implicative structure, parent's intention) ↘</p>	
<p>Perceived as appropriate Fitted to nature of misdeed Possesses truth value Due process observed Expected procedures followed Seen as well –intentioned Fitted to child's temperament, mood and developmental status</p> <p>Motivating Empathy aroused Insecurity aroused Importance to parent stressed Desire to identify with parent promoted (Importance of parental warmth) Desire for reciprocal compliance promoted Threats to autonomy minimized (low power assertion/ indirect and implicit messages employed/ accompanied by humour) (Implicit messages make it easier to extract and make self generation easier (Too much power assertion and love withdrawal make child fearful not able to things on) Facilitates feelings of self-generation Threats to autonomy minimized Decoding required Child's discounting patterns taken into account</p>	→	<p>↗</p> <p>Acceptance of the message</p>	Internalisation

The major challenge for secondary services is therefore to maximise their area of influence by working closely with primary health teams to develop their skills with young children in order to assess and treat young children with behaviour disorders before they become intransigent. Current thinking on

biological issues should be melded with knowledge and the understanding of what factors are important for positive parenting.

Sharing resources with other agencies is of increasing importance with scant It will continue to be important to meld research with clinical practice and important for clinical teams to evaluate and change practise in the light of the evaluation and current research so that teams can continue to be learning organisations (Birleson, 1998).resources.

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