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LIFETIME IMPACTS

Childhood and Adolescent Mental Health: understanding the lifetime impacts

Report of a seminar organised by the Office of Health Economics and the Mental Health Foundation, April 2004

Acknowledgements

This report was written by Tara St John, Lucy Leon and Dr Andrew McCulloch at the Mental Health Foundation based on material presented at a joint seminar organised by the Mental Health Foundation and the Office of Health Economics (OHE) which took place at the OHE on 26 April 2004.

Jon Sussex and Melanie York at the OHE and Tara St John and Dr Andrew McCulloch at the Mental Health Foundation organised the seminar and it was chaired by Adrian Towse of OHE. The speakers were as follows:

- *Dr Barbara Maughan* (Institute of Psychiatry) on the epidemiology and social burden of mental illness in childhood and adolescence.
- *Dr Lynne Friedli* (Editor of the Journal of Mental Health Promotion and consultant to The Mental Health Foundation) on the nature and role of health promotion in this area.
- *Dr Bob Jezzard* (Department of Health and Guy's and St Thomas' NHS Trust) on clinical responses and the broader context for clinical practice.
- *Andrew Healey* (London School of Economics) on a cohort analysis of mental health in childhood and subsequent impact on employment.

Whilst we have attempted fairly to represent the views of the speakers and those attending, the Mental Health Foundation takes responsibility for the contents of this report.

Thanks are also due to all those who attended and participated in the seminar.

Foreword

I suspect most of us who have had anything to do with the issues surrounding young people's mental health believe that resolving issues in early life is important to mental health and social functioning in later life. We might articulate this in different ways, and clearly any naive model will have counter evidence and counter examples. However, it seems clear that early vulnerability is predictive not just of mental health problems in later life but also of poor socialisation, criminality, lack of participation, relationship difficulties and so on. This relationship is very complex, and is mediated by biological, psychological, and social factors. There is no one-to-one relationship between childhood and adult mental disorder.

The prize to be won in successfully intervening with young people's crises is potentially huge. The potential benefits not just to the individual but also to the whole of our society imply that putting resources into improving child and adolescent mental health should represent a very sound investment. Yet this is at a time when services are often seen to fail young people, particularly at the transition between adolescence and adulthood. Child and adolescent mental health services are developing rapidly, yet they cannot meet the huge volume of demand and sometimes seem to be structured in ways which do not promote engagement.

Whilst many of us believe that intervening effectively at this stage could give a huge positive legacy to future generations, it is very difficult to prove this. The scale of economic analysis in the area has been modest to date: much more might be done. This seminar was therefore jointly set up by the Mental Health Foundation and the Office of Health Economics to start to explore the area and map what work needs to be done to have a better understanding of what we have called 'Lifetime Impacts'. I hope this report of the seminar is a useful resource and we at the Mental Health Foundation and the Office of Health Economics will be considering the next steps in establishing a better understanding of this neglected but fundamental mental health issue.

Dr Andrew McCulloch
Chief Executive
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1. Introduction

In April 2004 the Office of Health Economics and the Mental Health Foundation held a seminar focusing on the economics of childhood and adolescent mental health as part of their commitment to improving mental health provision for children and young people in the UK. This report is an attempt to draw together the themes from the discussions, along with general conclusions from the day.

In his opening remarks, Dr Andrew McCulloch, Chief Executive of the Mental Health Foundation observed that:

- We have a range of effective interventions for children's mental health problems. Outcomes can be good and standards within services are often high.
- Services are in short supply in all settings and referrals to specialist child and adolescent mental health services (CAMHS) by GPs are dropping rapidly. The latter might be explained by an increase in referrals from elsewhere. However, research by the Mental Health Foundation shows that young people and parents sometimes find CAMHS inaccessible and often find a lack of understanding of their problems in more generic services.
- About 1 in 5 children has a mental health problem in any one year and 1 in 10 at any one point in time but there are problems in language and definition.
- Mental health problems are tied up with issues of risk, deprivation and vulnerability and can be part of a negative life journey resulting in social exclusion, low achievement, adult mental health problems, relationship breakdown etc. Potentially this can result in more mental health problems, which in turn can visit problems on future generations – 'the sins of the fathers'.
- Mental health problems in adults cost us £77 billion per anum in England alone, according to one recent estimate.[1]

Despite a wide range of research results and government policy supporting the many benefits of early intervention and the promotion of good mental health we are still unable to show their cost-effectiveness, i.e. what cost savings and what lifetime benefits we could get from investing in mental health promotion and intervention, early or otherwise, in childhood and adolescence. There are enough arguments that lead us to believe they may be large. Understanding this better could have massive and beneficial implications for policy.

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2. Child and Adolescent mental health: the scope of the problem

(This section is based on the paper presented by Dr Barbara Maughan)

What do we mean by mental health problems in childhood?

We believe that children who are mentally healthy will have the ability to:

> Develop psychologically, emotionally, creatively, intellectually and spiritually.

> Initiate, develop and sustain mutually satisfying personal relationships.

> Use and enjoy solitude.

> Become aware of others and empathise with them.

> Play and learn.

> Develop a sense of right and wrong.

> Resolve (face) problems and setbacks and learn from them.

A mental health problem can be seen as a 'disturbance in functioning' in an area such as relationships, mood, behaviour or development. When a problem is particularly severe or persistent over time, or when a number of these difficulties are experienced at the same time, children are often described as having mental health disorders. Disorders in children and adolescents can be divided into four main categories:

Emotional disorders	◆ Depression ◆ Anxiety disorders
Conduct disorders	◆ Oppositional Defiant Disorder ◆ Conduct Disorder
Hyperkinetic disorders	◆ Attention Deficit Hyperactivity Disorder (ADHD)
Less common disorders	◆ Pervasive developmental disorder ◆ Psychotic disorders ◆ Eating disorders

How common are mental health problems in childhood and adolescence?

Recent research has shown an increasing prevalence of mental health problems in children. The recent Office for National Statistics (ONS) survey showed that 10% of children aged 5 to 15 experience clinically defined mental health problems (i.e. a psychiatric disorder)[2] and the prevalence of problems has been increasing over the past 50 years.[3] Overall figures from epidemiological studies of children

and adolescents spanning years 5 to 15, suggest that 10% of children had a mental health disorder; diagnosable anxiety disorders affect around 4% of this age range, conduct disorders around 5%, and 1% were described as hyperactive. Less common disorders (autistic spectrum disorders, eating disorders and tics) were attributed to half a percent of the sampled population.

The ONS study also shows that problems experienced by children and young people with mental health disorders ripple out and affect other aspects of the child's life, family and community life, educational achievement, and physical health and social functioning.

The provision of services for these young people have likewise received considerable interest.[4] Research by the Mental Health Foundation and others indicate that services, especially CAMHS are historically determined and fragmented and in many areas lacking in key personnel.[5]

How are child mental health problems distributed in society?

Children with a mental health problem are more likely to be boys, living in a lower income household, in social sector housing and with a lone parent. They are less likely to be living with married parents and in social class I or II households. The prevalence rate of mental disorders is greater amongst children:

> In lone parent compared with two parent families. (16% compared with 8%)

> In reconstituted families rather than those with no step-children. (15% compared with 9%)

> In families with five or more children compared with two-children. (18% compared with 8%).

> If interviewed parent had no educational qualification compared with a degree level or equivalent qualification. (15% compared with 6%)

> In families with a gross weekly household income of less than £200 compared with £500 or more. (16% compared with 6%)

> In families of social class V compared with social class I. (14% compared with 5%)

> Whose parents are social sector tenants compared with owner occupiers. (17% compared with 6%)

> In household with striving rather than a thriving geo-demographic classification. (13% compared with 5%)

Office for National Statistics & Department of Health, 1999, Mental Health of Children and Adolescents in Great Britain

Do mental health problems matter in the longer term?

A three year follow-up study looking at the persistence of disorders carried out by ONS showed that:

- Overall, a quarter of the children who had a clinically-rated, emotional disorder at the first interview in 1999 were also assessed as having an emotional disorder three years later.
- Overall, 43% of the children who were assessed in 1999 as having a conduct disorder were also rated as having a conduct disorder three years later.

Another study[6] looked at psychiatric disorders in 26-year-olds in relation to the age at which they were first diagnosed. Results show a strong correlation between child and adolescent mental health difficulties and mental health problems in adulthood:

> 50% of the sampled 26 year olds had been first diagnosed between the years of 11-15.

> 75% of the sample had been first diagnosed between the years 11 and 18.

> 85% had been first diagnosed when they were between 11 and 21 years old.

The National Child Development Study (NCDS), a continuing, multi-disciplinary longitudinal study, tracked everyone born in one week in 1958 over 30 years, looking at other aspects of functioning affected by mental health disorders. Results show strong unfavourable correlation between childhood conduct disorder and:

- qualifications and employment
- relationships and family formation
- health and disability by age 33.

3. The case for mental health promotion

(This section is based on the paper presented by Dr Lynne Friedli)

There is now an abundance of data demonstrating the importance of mental health and well-being to overall health, productivity and quality of life. Mental well-being, like physical health, is a resource we need to promote and protect but there is growing concern that the mental health of children is declining. Among teenagers, rates of depression and anxiety have increased by 70% in the past 25 years, particularly since the mid 1980's. The changes are not the result of an increasing tendency to rate teenagers as problematic, but the result of real changes in behaviour and experiences.[7] While there is a clear need to improve child and adolescent mental health services and to strengthen mechanisms for the early identification of emotional problems in childhood, all children have mental health needs and will benefit from a greater focus on emotional well-being in families, schools and the wider community.

Public mental health takes a population wide approach to improving the mental health of the entire population, rather than focusing solely on children with existing mental health problems.

Mental health is more than the absence of mental illness and can be defined as

'..the emotional and spiritual resilience which allows us to enjoy life and to survive pain, disappointment and sadness. It is a positive sense of well-being and an underlying belief in our own and others' dignity and worth'.

How children feel is not an elusive and abstract concept, but a significant public health indicator and a key determinant of their behaviour, attainment, health and prosperity. Although there is limited data on cost benefits, there is robust evidence for the effectiveness of interventions to promote the mental health of children and young people.[8] Wanless has calculated that the cost benefits of better mental health care would be a net saving across government as a whole of some £3.1 billion a year.[9] This does not take into account the savings from promoting mental health and preventing problems in the first place.

Policy context for mental health promotion

A range of recent government guidance and policies supporting early intervention for children, parents, families and the community has been produced:

- **Securing our Future Health: Taking a Long-term View, the Public Inquiry Unit, HM Treasury, D. Wanless, 2002**
  'The one major area of government activity that can, but mainly over the long-term, reduce demand for health care and other related services is public health promotion and sickness prevention'.

- **Every Child Matters, Department for Education and Skills**
  'Government has announced the creation of Parenting Fund of £25 million over the next three years to improve parenting and family support, early intervention'.

- **Children's Fund, Department of Health and Department for Education and Skills**
  The Fund aims to stimulate a shift towards coherent local preventive strategies for children and young people at risk of social exclusion and should support the development of the wider Local Preventative Strategy which the Government has asked each Local Authority to develop for 0-19 year-olds.

- **Extended schools, Department for Education and Skills and Department for Work and Pensions**
  Extended schools provide a range of services and activities often beyond the school day to help meet the needs of their pupils, their families and the wider community. 'Schools are ideally placed to develop and provide childcare services that meet the needs of all concerned – from child and parent to the local community – while bringing undoubted educational, human resource and performance-related benefits to schools'.

- **National Healthy Schools Standard, Department for Education and Skills and Department of Health**
  This is part of the Government's drive to reduce health inequalities, promote social inclusion and raise educational standards.

- **Sure Start: improving life chances for 0-3 year olds**
  A programme to deliver the best start in life for every child by bringing together early education, childcare, health and family support.

Counting the cost

A number of studies are beginning to calculate the economic cost of failing to address early signs of emotional problems in childhood. Scott *et al* found that the cumulative costs of public services used through to adulthood by individuals with 'troubled behaviour' as children were 10 times higher than for those with no problems. Conduct disorder was the most significant predictor, with greatest costs incurred for crime, followed by extra educational provision, foster and residential care, and state benefits.[10] One pilot study, of children aged 4-8 referred with conduct disorder, found that the mean extra cost was £15,282 a year (range £5,411-£40,896). Of this, 31% was borne by families, 31% by education services, 16% by the NHS, 15% by state benefit agencies, 6% by social services, and less than 1% by the voluntary sector (ibid).

Both bullying and being bullied are associated with outcomes with a high social and economic cost: criminal behaviour and alcohol abuse (bullies) and depression and suicidal behaviour (victims of bullying). Anti-bullying schemes which involve the whole school, parents and the community e.g. the Campaign against Bully-Victim Problems, are effective. Follow-up found a 50% reduction in bully/victim problems for boys and girls across all grades with more marked effects after two years. There were also significant reductions in anti-social behaviour such as vandalism, fighting, truancy, theft and drunkenness and significant long-term impacts on criminal behaviour, alcohol abuse, depression and suicidal behaviour.[11]

Although there is a pressing need for robust studies of cost/benefits of specific interventions, there is sufficient evidence to support the case for greater investment in mental health promotion. The clear relationship between poor mental health in children, for example anxiety, depression and behavioural problems, and poor school outcomes, poor physical health, self harm and risk taking behaviour means that even a modest improvement in mental well-being is likely to have significant cost benefits.[12]

A recent review of reviews and a series of secondary analyses on the UK birth cohort studies confirms that poor quality relationships within the home during childhood predict poor mental and physical health. These effects are independent of socio-economic disadvantage; social deprivation alone does not account for the effects of poor quality relationships on health in later life. These findings suggest a strong case for universal provision to support parenting, alongside fiscal policy to reduce childhood poverty.[13]

Mental health and inequalities

Mental ill health, a random misfortune or a predictable outcome?

Mental health, like physical health, is strongly associated with material deprivation. Findings from nine large-scale[14] population based studies show that the following factors consistently predict high prevalence of common mental disorders:

- low income or standard of living
- low levels of education
- unemployment
- adverse life events.

As Rogers and Pilgrim observe in their study of mental health and inequality, in relation to the oft cited prevalence figures for mental health problems: one in four yes, but not any one in four.[15] Mental ill health is both a consequence and a cause of poverty. A greater focus on mental health highlights the relationship between inequalities and the erosion of emotional, spiritual and intellectual resources essential to psychological well being: agency, trust, autonomy, self-acceptance, respect for others, hopefulness and resilience.[16] Deprivation is a catalyst for a range of feelings: hopelessness, despair, frustration, anger and low self worth which impact on intimate relationships, the care of children and care of the self.

In their recent analysis of variations in health status within socio economic groups, Ferrer and Palmer found that a resilient subgroup of lower socio-economic status people seems to maintain excellent self rated health throughout life, while a more vulnerable lower socio-economic status group experiences rapid deterioration in health status as people reach middle age. There is an urgent need for a greater focus on the factors which predict resilience in the face of adversity: the quality of relationships in childhood may be one such factor.[17]

Emotional and cognitive protective factors

While there is considerable debate about the relative influence of genetic inheritance, family relationships and the broader socio-economic environment, both parenting style and the school environment have an important impact on children's emotional and cognitive development. Key protective factors include:

- feeling loved, trusted, understood and valued
- interest in life
- hopefulness, optimism
- capacity to learn
- self-acceptance
- agency/locus of control

- autonomy
- problem solving/resilience.

Interventions which promote resilience in children under five help those children to do well in spite of adversity.[18] Factors which strengthen resilience include family harmony, cooperative relationships between parents, opportunities to succeed and internal locus of control.

Research on the impact of early relationships, notably in the first year of life, on cognitive and emotional development has been strengthened by work in the field of neuroscience, which suggests that the parent/child relationship influences the development of parts of the brain which affect the emotions and social behaviour, in ways that are difficult to reverse in later life.[19]

Although there is a need for more research as to which interventions are most effective, both in reducing risk factors and strengthening protective factors, it does not require a systematic review to conclude that the 'do nothing' option is likely to incur the highest long-term social and economic costs.

What works?

Pre-school

Interventions in the following areas have the most significant impact on improving the mental health of children and preventing or ameliorating early symptoms of mental health difficulties:[20]

- improving parenting skills
- strengthening child/carer relationships
- addressing behavioural problems in infants and children
- promotion of family mental health
- domiciliary health visiting
- day care and parenting support .

Effective programmes are those that work at multiple levels to strengthen the relationship between the child and the caregiver or parent and to address socio-economic factors that undermine positive parenting and family mental well-being.

- Group based parenting programmes improve maternal mental health and reduce children's behavioural problems.[21]
- Home visits for first time mothers, beginning in pregnancy and continuing for two years, greatly improve the physical and mental health of children, reduce physical maltreatment and have significant social and economic benefits for the caregiver. Systematic review level evidence[22] demonstrates that home visiting is associated with improvements in:
  - parenting skills
  - the quality of the home environment
  - several child behavioural problems including sleeping
  - detection and management of postnatal depression
  - enhanced quality of social support to mothers.

Proactive interventions, e.g. home visiting or community-based approaches, have more sustained effects than reactive interventions e.g. for child abuse.

- Day care combined with home visiting and parental training has a positive impact on adult life, notably on criminal behaviour, school achievement and the mother's education and employment.[23]
- Programmes to support pre-school development, such as language skills and impulse control and work to support parents in recognising, understanding and enhancing developmental milestones have cognitive, emotional and behavioural benefits, evident in follow up at 21 years.[24] Reading to pre-school children also has cognitive and emotional benefits, as well as promoting literacy.[25]

The role of schools

'Young people who had a good experience at school regardless of whether they were high achievers, were more likely to belong to the "can-do group" i.e. those children with high self-esteem'.[26]

Addressing mental health in both early years settings and schools has been given priority by the Department for Education and Skills recently.[27] It is becoming increasingly clear that children whose emotional and behavioural needs are being met are more able to apply themselves to learning. Strategies to promote mental health impact on individual children's learning and behaviour, staff performance and morale, and the overall ethos and success of the school. Schools can also play an important role in the early identification of emotional problems, as well as learning difficulties, which can themselves lead to emotional and conduct problems.

Mental health promotion in schools should be complemented by community-based initiatives, working in partnership with young people. This is particularly important as children grow older and often spend more time with their friends than with their family. Peer group pressure is particularly significant in early adolescence.[28]

Work with young people both within schools and in the community should also recognise the different needs of girls and boys. The gap between the health of young women and young men, and the impact of gender roles on the experience and expression of mental distress, suggests a need for a much greater emphasis on different approaches for young men and young women.[29] Self-esteem, peer pressure, identity and coping styles are all important influences on young people's mental health and all have significant gender elements. Health risk behaviour is also an important aspect of expressing or acquiring gender identity. For example, young men are three times more likely to be alcohol dependent than young women and twice as likely to be drug dependent.[30]

A recent systematic review which looked at 17 individual project evaluations specifically asked: do school-based, universal mental health promotion interventions improve children's mental health and is it possible to identify attributes that are common to successful interventions?

The review found that it is possible to have a positive impact on children's mental health through school-based programmes. The most positive evidence of effectiveness was for programmes that adopted a whole school approach, were implemented continuously for more than a year and were aimed at the promotion of mental health rather than the prevention of mental illness.

Those programmes which measured self-concept, emotional awareness and positive interpersonal behaviours rather than conduct problems and anti-social behaviour were more likely to show moderately positive or positive results. Methods of delivery varied and included behaviour change techniques; involvement in co-operative / helping activities; training of teachers; training of parents; changes in school environment, systems or culture.

It is worth noting that all but two of the studies in the review were carried out in the USA, and that the authors point out that while the results support the feasibility of the school mental health component of UK national policy, they do not of themselves show that these programmes work in a UK school setting.

Wells, Barlow & Stewart-Brown (2003)

Schools which promote children's mental health have been identified as sharing a number of features:

> a senior management team committed to promoting mental health

> a culture which emphasises trust, integrity, democracy and equality of opportunity

> a culture which values teachers, lunchtime supervisors and all those involved in the care of children

> a culture which values each child regardless of ability

> clear policies for issues such as behaviour and bullying (including sanctions) which are accepted and implemented throughout the school

> high professional standards (e.g. efficient planning, setting, marking and punctuality)

> skilful teaching which arouses pupil interest and motivates

> proactive work with parents.

Department for Education and Skills (2001)

Inspections of effective schools for students with emotional and behavioural difficulties were found to share the following features:

> All the schools sought to establish 'healthy' communities in which the staff and the pupils could work together harmoniously but with confidence that support would be forthcoming when crises occurred and conflicts had to be resolved. Good communications and relationships between staff, and between staff and pupils, were notable features of these schools as was the scrupulous attention given to applying sanctions and giving praise and rewards fairly.

> Frequently pupils were called upon to evaluate their own social competence. Staff emphasised trust and encouraged a strong sense of belonging to the school community with a belief in the value of good citizenship. The pupils reported that they felt safe when, for example, they knew that bullying would be dealt with quickly and firmly by staff.

However it is important to note that the report did not provide a definition or any evidence for what was classed as 'effective'. The schools they reviewed appeared to be those found by Ofsted to demonstrate an improvement in teaching between 1985 and 1998.

Ofsted

Successful programmes are those that involve parents and the wider community, strengthen school attachment and address the ethos and culture of the school as a whole. This should include a generic focus on skills that increase mental and social well-being and mechanisms for identifying and supporting at risk and vulnerable children. In summary, the evidence supports the following approaches:

- a health promoting school approach
- anti-bullying: whole school/community approach
- universal mental health promotion.

Key elements of such programmes are:

- a focus on health, not illness
- cognitive behavioural/social competence model
- interactive peer led models
- meaningful participation by pupils.

The most robustly positive evidence is for schools that adopted a whole-school approach, were implemented continuously for more than one year and were mental health promoting rather than mental illness preventing. Programmes that aimed to improve children's behaviour and were limited to the classroom were less likely to be effective.[31]

Conclusion

The five principles of effective intervention to promote mental health can be summarised as follows:

- reduce anxiety
- enhance control
- facilitate participation
- promote social inclusion
- strengthen known protective factors.

Evidence for the substantial rise in adolescent conduct and emotional problems suggests that the costs currently associated with the treatment of child and adolescent mental health problems can only increase. The case for a public mental health approach to the emotional needs of children is as compelling as the case for universal immunisation.

4. The implications for services and clinicians in a multi-agency context

[This section is based on the paper presented by Dr Bob Jezzard]

It is increasingly recognised that to improve the ability of child and adolescent mental health services (CAMHS) to provide effective care to children and young people, it is necessary to strengthen the role of CAMHS and the support they provide to other services, such as schools. This requires multi-disciplinary teams and interagency working.

Policy context

The policy context is favourable to the rapid development of CAMHS:

- The Department of Health's Public Service Agreement (PSA) target and its Priorities and Planning Framework (PPF)[32] are underpinned by an increased investment in CAMHS of £300m over three years.
- The National Service Framework for Children, Young People and Maternity Services, and specifically Standard 9 for the Mental Health and Psychological Well-being of Children and Young People.
- 'Every Child Matters', the Department for Education and Skills, Green Paper.

Epidemiological research

Over the past four years some important Office of National Statistics (ONS) surveys have been published which will give us a stronger understanding of the epidemiology of child and adolescent mental disorders:

- The mental health of children and adolescents in Great Britain. (2000)
- The mental health of young people looked after by local authorities in England (2003). There is a greater prevalence of mental health problems in this group of children.
- A longitudinal survey examining persistence, onset, risk factors and outcomes of childhood mental disorders. (2003).

Recent analysis of the 2000 survey, together with two earlier surveys, strongly suggests that mental disorders in children and young people are slowly increasing.

Service research

To support service development there has been a programme of research in progress including:

1) The CAMHS mapping exercise

This is being carried out by the University of Durham on an annual basis. In 2002, 124 NHS Trusts were identified as providers of specialised CAMHS services and between them they had 732 teams and 7,340 staff. Findings are presented below.

> Reported spend on specialist services (predominantly in the NHS) per child (0-15) ranges from £19 to £31.

> Numbers waiting per region range between 150/100k and 284/100k .

> Numbers seen per region range between 73/100k and 283/100k .

> 20% wait more than 26 weeks.

> Average case load per member of CAMHS staff varies regionally from 16.2 to 24.5.

> Day services provided by 25% of CAMHS.

> On call services provided by 53% of CAMHS.

> Learning disability specialist services are provided by 36% of Trusts.

2) CAMHS innovation projects

The evaluations of the 24 CAMHS Innovation Projects established by the Department of Health are being led by Zarrina Kurtz and Cathy James. A summary of emerging recommendations is contained in the box.

Key elements of a service that works for children:

> Be readily accessible... by offering home visiting and outreach at times that can be negotiated to suit the user.

> Seek to engage child, young people and their parents and carers.

> Offer advice consultation and training to others.

> Have the capacity to keep in touch with young people over the long-term.

Key elements of a service that works from the point of view of professionals, managers and commissioners:

> Effective and consistent leadership endorsed by all agencies.

> Strong interagency commitment over the medium to long-term.

> Links with other services within and outside CAMHS.

> Retention of a stable multidisciplinary staff group.

> Positive commitment to continued evaluation and audit.

3) CAMHS in primary care

Bower at the National Primary Care R&D Centre, Garralda and Harrington were commissioned by the Department of Health to review CAMHS provision within primary health care settings. Findings concluded that little research has been conducted on effectiveness and cost-effectiveness of these services. The effect of consultation and liaison in changing the behaviour of primary care staff and improving patient outcomes also remains unclear. Some emerging data on this subject are shown in the box below.

Survey of general practices
18.6% had specialist staff providing consultation and liaison.
9.3% had specialist staff providing support for training and education.
7.5% had specialist staff consulting in a general practice setting.
9.4% had access to a specific primary mental health worker.

Survey of Trusts providing CAMHS
2/3rds provide training and education in CAMHS.
1/3rd provide structured consultation.
1/5th provide shifted out patient clinics and joint case work.
1/3rd had developed primary mental health worker posts.

CAMHS characteristics significantly associated with interface work were:
A higher percentage of managers time spent managing CAMHS.
Larger total number of CAMHS staff.
More professional diversity.
Larger numbers of specialist clinical teams.
Shorter waiting times.

Primary mental health worker posts
The development of CAMHS in primary care is highly dependent on these new PMHW posts in tier 2
Development of the posts is highly variable.

4) CAMHS and schools

Pettit (Mental Health Foundation) found that:

- 89% of CAMHS work in schools
- 81% in secondary schools
- 76% in primary schools
- 72% in special schools.

There are wide variations in practice and structures. The most common service provided is consultation with and support to school staff. Seventy percent do direct work and many also work with parents. Key factors facilitating effective joint working between CAMHS and schools have been found to include:

- secondments between organisations
- being based in the same location
- flexibility of recruitment
- a commitment to joint working at all levels of the service
- informal meetings, networking and team building.

Getting CAMHS and schools to work together inevitably raises issues of differing expectations, which need to be managed, and different organisational and professional cultures, which need to be understood. Good communications and information sharing, as always, are vital.

5) The National Inpatient and Adolescent Psychiatry Study

This has found that in relation to access:

- Sixty percent of emergency admissions were within 24 hours and 80% within one week. This means that a significant group of patients experienced unacceptable delays. A number were refused admission due to a lack of resources or the nature of their difficulties.
- About 25% of all admissions to paediatric or adult mental health wards were 'inappropriate'.

In relation to care and treatment the study found that a wide range of treatments were provided but adolescents in adult settings received a reduced repertoire of treatments.

6) The Children and Young Person's Inpatient Evaluation Study

This study has found deficits in pre-admission treatment for those admitted to children's units. Adolescent units are particularly successful in meeting need in the areas of adaptive social change and risk taking behaviour. Children's units are particularly successful in the areas of externalising behaviour disorders and assessment and intervention with children with pervasive development disorders. There is a positive picture of effectiveness and a pattern of continuing improvement through discharge to follow up a year later. Predictors of greater improvements in outcome seem to include:

- higher levels of disorder initially
- shorter waiting times and longer lengths of stay
- confiding relationships existing between staff and patients
- adolescent expectations of likely effectiveness.

Conclusion

Over the last few years we have learned a great deal more about the pattern and effectiveness of CAMHS, but the knowledge gaps are still large. A wide range of variations in service structures and clinical practice still exist, but relatively little service outcome information is available. There is a huge research and development agenda to enable us to understand the impact of CAMHS, to shape services and advocate for best practice.

5. Childhood mental health & behavioural development: implications for future economic status

[This section is based on the paper presented by Andrew Healey]

Work on the long-term consequences of child and adolescent mental health problems is at a formative stage. We need to study these to:

- establish they exist
- quantify them
- assess potential economic benefits of intervening both for the individual and for society.

Long-term costs: what do we know already?

Evidence suggests that experiencing long-term mental health difficulties can have a negative effect on other areas of the person's life, which has in turn damaging economic and financial implications including:

- low academic achievement
- adult psychiatric problems
- unwanted pregnancy, criminal convictions
- persistence of personality traits that are not conducive to success in the labour market.

Most of the research evidence to date relates to conduct problems/antisocial tendencies. The focus of evidence is mainly on the resource costs that fall on public agencies. But there is some evidence of long-term economic consequences for the individual such as lower rates of employment for people who experienced conduct disorder pre-school. Andrew Healey is currently undertaking a longitudinal study of the link between childhood mental health problems and economic status later in life.

Longitudinal study of earnings and childhood mental health-behavioural development

The 1970 British Cohort Study (BCS70)[33] is a continuing, multi-disciplinary longitudinal study which takes as its subjects all those living in Great Britain who were born in a particular week in April 1970. Data from the BCS70 were used to look at the association between earnings at age 30 and aspects of childhood mental health and behaviour measured at age 10 according to teacher ratings of emotional well-being and behaviour and self-reported gross earnings at age 30. The estimated relationships also control for other variables observed at age 10 e.g. cognitive attainment, parental income and parental education.

Teachers rated a series of items relating to emotional well-being and behaviour. Statistical analysis (principal components analysis) was then used to group related items into general problem areas (see table below for details):

- conduct problems
- emotional difficulties
- attention deficit hyperactivity (ADH)

An index of severity was created for each problem area using the ratings and the children in the worst 25% on these scores were compared to the rest of the cohort in an analysis of earnings at age 30.

Conduct problems	**Emotional difficulties**	**ADH**
Bullying	Fearful of new situations	Day dreaming
Property damage	Nervousness	Cannot concentrate on a specific task
Volatile temper	Fussy/over-particular	Squirmy/fidgety
Mood swings	Worried/anxious	Easily distracted
Restlessness		Does not pay attention
Impulsivity		Forgetful when given complex tasks
Interference with other children		Fails to finish tasks
Quarrels with other children		
Teases to excess		
Complains		

Summary of findings

- Attention deficit-hyperactivity and certain aspects of poor conduct at age 10 have the largest negative association with future earnings.
- The effect of emotional difficulties is less pronounced but still significant.
- The association between earnings and conduct problems is complex. In particular, children grouped in highest 25% on conduct problem severity are predicted to earn significantly *more* than their peers. However, this positive effect is even greater if variations in conduct problems related to bullying, property damage and temper volatility are held constant. Teacher ratings of bullying, property damage, temper volatility are independently associated with significantly *lower* adult earnings.

The findings show that mental health and behavioural development in childhood is an important marker for future earnings potential. The evidence shows a higher risk of poverty at age 30 and lower chance of participation in paid employment for children who had mental health and/or behavioural development difficulties. Children with certain 'problematic' behavioural-personality traits appear to be more economically successful but presence of antisocial characteristics appears to reduce this beneficial effect.

There is a need for more evidence on the effectiveness (and costs) of childhood intervention – prevention-based or treatment of existing problems. Early intervention could represent important investment given the observed adult consequences.

6. Discussion

Following the papers, Adrian Towse chaired a discussion amongst the participants and those who presented the papers.

Those present agreed that our knowledge is very limited. The cost savings and lifespan benefits of interventions with young people might be very large but an intellectually rigorous analysis would be required to encourage the Government to invest more heavily.

There was some discussion about the association of childhood with later adult mental disorders. The likelihood of depression in adulthood appears to be strongly correlated with having had a mental health problem in childhood.

A problem is predicting which families and parents might require and benefit from support and this might argue for population level interventions. Other arguments for universality included the potential that all children might benefit from improved mental health and that this might be more efficient than a selective approach.

There was a discussion about how best to promote the arguments in favour of mental health promotion and early intervention. Delegates agreed that the research agenda was critical and that outcome studies were required. There would be methodological problems, e.g. diagnostic tools are not the same in adult and CAMHS settings. Greater tracking is required to spot key markers in the evolution of mental health problems.

It was thought that a reasonably robust case had been made for promoting emotional well-being in schools. However, many children were lost to the school setting by the time they reached adolescence. We need to find ways of locating and working with such children possibly even at street level.

A discussion followed of the negative pathways that children can find themselves on. Young offenders are a key group and there is a risk of further mental health problems the further they go into the youth justice system. There will always be an outlying group with severe problems and it was not always clear that early intervention would reach all of them, therefore there would be a need to ensure that they could still be picked up downstream.

It was felt that a critical issue lies with the setting in which interventions are offered. Quick, easy, non-stigmatising interventions need to be available in generic settings. For example, staff at the Maudsley are looking at offering parenting skills interventions in an outreach bus. Physical health would be addressed first, then mental health.

Some further points made by seminar participants are summarised in the box

> Children as young as four have an understanding of mental illness – but not of mental health.

> There is a lack of joined-up working on this issue across statutory agencies.

> NICE will shortly be looking at parenting training programmes as an intervention in conduct disorder.

> We need to develop a robust measure of cost-effectiveness in this area.

> Evidence does not necessarily drive policy; campaigning and advocacy will also be required.

> It will be challenging to attempt to measure the benefits of early intervention over a long time period.

> The economic costs of mental ill health hit different stakeholders at different points in the subject's life course.

> It would be interesting to know if the interventions themselves were cheaper earlier in the cycle. It was thought this might be the case.

> Specialist services provide little to under 5s, yet emerging evidence shows this period to be critical for mental health and social functioning.

> More thought needs to be given to which groups of workers or stakeholders would be intervening early – more thought needs to be given to the role of primary and generic workers.

> We need to look at the cost-effectiveness of inpatient mental health care

> Measurement of efficacy is often dubious at present.

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