The Millennium Cohort Study as a Resource for Research on Parenting

Lucinda Platt
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www.ioe.ac.uk
Overview

What is parenting?
Why does it matter?
The Millennium Cohort Study (MCS)
Parenting and the MCS
Examples of research questions
Future possibilities
Discussion
What is parenting?

Which parents?
- Both parents
- Lone parents
- Non-resident parents

Other care?
Child care formal and informal
Grandparents

What sorts of parental behaviours and activities?
- Care, feeding, bedtime etc.
- playing, physical exercise and sport, music
- reading with child
- relationship and responsiveness
- support with learning and schooling
- rules and permissions
- outings and activities
Why is it important?

- child’s well being
- emotional, behavioural, cognitive development
- long term consequences
Parenting and the MCS

MCS as a resource for investigating parenting
  Sample and design
  Range of measures
  Repetition of measures over time
  Potential for comparison with earlier cohorts
  Wealth of outcome measures that can be related to parenting
  Sensitivity to changing or emerging agendas
The Millennium Cohort Study

The MCS is a birth cohort study of c19,000 children sampled from all live births born between September 2000 and December 2001 from across UK, who are followed over time.

Sample selected from a random sample of electoral wards, disproportionately stratified to ensure adequate representation of all four UK countries, deprived areas and areas with high concentrations of families from Black and South Asian minority ethnic groups.

Births took place over a year (unlike NCDS or BCS70).

Main respondents are predominantly mothers, but partners are also interviewed at each wave.

Data collection (so far): when child was around 9 months; around three years old; around 5 years old, and around 7 years old. Forthcoming age 11 survey. Subsequent sweeps planned for 14 and 17 and over the life of the children.

Rich content from multiple participants, providing information on family context, child experiences and outcomes.
# Data collection in MCS

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Examples of parenting measures

NB often age specific – and not exhaustive

Physical play with child
Games with child
Reading to child
Response to misbehaviour
Bedtime and mealtime rules
Parenting style

Parents’ relationship with child
Child’s involvement in household chores
Perceptions of parenting skill
Involvement of resident fathers in child care
Non-resident fathers’ contact with children
Involvement of grandparents in child care
Examples of outcome measures

Physical activity: walking to school; organised sports activities;
Health and health related: illnesses, disability, overweight & obesity
Cognitive development: e.g. BAS assessments, pattern construction; word reading etc.
Behaviour: e.g. strengths and difficulties (SDQ); relationship with parent
SOME EXAMPLES OF PATTERNS OF PARENTING:
Who?
resident father’s involvement

At 9 months:
53% fed child at least once a day
57% changed nappy at least once a day
60% looked after baby on own at least a few times a week

At age 5:
19% of fathers got the child ready for or put them to bed every day
34% looked after them on their own at least several times a week

At age 7:
26% of fathers got the child ready for or put them to bed every day
37% looked after them on their own at least several times a week
Who? non-resident fathers

**At 9 months:**
63% of those who had been in a relationship with mother at time of birth but not cohabiting saw baby at least once a week (1/4 every day)
58% of those who had cohabited
36% who had been married
c. 10% of those who had not been in a relationship with mother at time of birth

**At age 3:**
23% were in frequent contact (3+ times per week)
44% were in less frequent contact
33% were not in contact at all

**At age 5:**
21% were in frequent contact (3+ times per week)
51% were in less frequent contact
28% were not in contact at all

**At age 7:**
19% were in frequent contact
52% were in less frequent contact
29% were not in contact at all
Who? grandparents

**At 9 months:**
93% of cohort mothers had a mother alive 
83% of cohort mothers had a father alive 
90% of respondent partners had a mother alive 
79% of respondent partners had a father alive 
6% of babies lived with a one or more grandparents (though for South Asian families, between ¼ and 1/3)  
45% of employed mothers used grandparents for childcare 

**At age 3:**
29% of families used grandparents for childcare 

**At age 5:**
27% of families used grandparents for childcare 

**At age 7:**
27% of families used grandparent(s) for childcare during the week; 20% at weekends and 33% during school holidays
At age 3:
62% of mothers read to their child every day; and 19% several times a week
23% of responding fathers read to their child every day and 27% several times a week

At age 5:
53% of mothers read to their child every day; and 29% several times a week
16% of responding fathers read to their child every day and 34% several times a week

At age 7:
42% of mothers read to their child every day; and 27% several times a week
16% of responding fathers read with their child every day and 25% several times a week

For 79% of children, someone at home helped with reading, writing or maths. 34% getting help every day and 37% several times a week.
What? physical activities

**At age 5:**
24% of mothers did sports of physical games with child at least several times a week
39% of fathers
18% of mothers took child to park/playground at least several times a week
9% of fathers

**At age 7:**
18% of mothers did sports of physical games with child at least several times a week
34% of fathers
14% of mothers took child to park/playground at least several times a week
9% of fathers
51% of children walked to school; 1% cycled
At age 3:
31% of families have lots of rules and 42% have not many

At age 5: in response to misbehaviour
38% of mothers never or rarely ignore
88% never or rarely smack
11% never or rarely tell off

At age 7: in response to misbehaviour
55% of mothers never or rarely ignore
92% never or rarely smack
28% never or rarely shout, 30% do so often
40% never or rarely send to bedroom or naughty chair
37% never or rarely take treats away
13% never or rarely tell off
75% never or rarely bribe
RESEARCH ON PARENTING USING MCS – SOME EXAMPLES
Parenting as predictive of child outcomes

Do differences in parenting relate to differences in child outcomes?

Outcomes explored include:
• physical activity
• cognitive outcomes
• behavioural outcomes
• overweight

Parenting measures explored include:
• Parents playing with children
• Parental style – discipline, rules etc
• Parent-child relationship
• Parental activities
• Forms of childcare

e.g. Brophy et al. 2011 on play and physical activity; Pearce et al. on childcare and overweight; Hansen and Hawkes 2009 on childcare and behavioural and cognitive outcomes; Heikkilä et al. 2011 on breast feeding and behavioural outcomes.
Parenting as mechanism for, or mediating, other factors

For example…

What is the role of parenting in mediating socio-economic differences in child outcomes?
  e.g. Ermisch 2008; Kiernan and Huerta 2008; Washbrook 2010;

How far does parenting account for the impact of maternal mental health on child outcomes?
  e.g. Kiernan and Huerta 2008; Kiernan and Mensah 2009.
Parenting matters…(though not the only thing that matters)

“parenting practices appears to be an important part in the activity of children” (Brophy et al. 2011 p.8)

“economic deprivation and maternal depression separately and collectively diminish the cognitive and emotional well-being of children, and part of this diminution emanates from less nurturing and engaged parenting by those with less economic and emotional resources” (Kiernan and Huerta 2008)

“What parents do is important” (Ermisch 2008, p.69)

And a key strand in Frank Field (Foundation Years) review.
Ongoing and future possibilities

The MCS offers a rich resource for parenting research

• both in terms of measures of different aspects of parenting; and
• in terms of outcomes potentially influenced by parenting context or practice

There already exists a wealth of research on how parenting practice is associated with differential child outcomes in the early childhood years and how it can mediate the effect of other aspects of context.

There still remain many answered questions

□ for may associations the actual mechanisms are still not well or fully understood
□ the impact of child behaviour on parenting practice still demands further investigation
□ there is much to be learnt about influence of parenting on later childhood outcomes; and
□ the protective aspects of particular parenting practices merit further investigation.
Going forward, some questions for discussion

1. How can research findings be meaningfully and effectively translated into practical policy measures?
   How far is it possible to manipulate / support parenting practice?
   How can parental independence be tallied with support for parents?

2. What are the most valuable measures of parenting to carry forward in studying children’s experience beyond the early childhood years?

3. What are the most important outcomes that we are interested in measuring and linking to parenting measures as the children grow up?

4. How significant or relevant is change in parental practice at different ages?


Thank you for your attention
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Please register for regular updates
Early childhood caring environment and socio-economic gaps in children’s cognitive and non-cognitive development

Lorraine Dearden, Luke Sibieta and Kathy Sylva
Background and Motivation

• Children growing up in poor families end up with lower educational attainment than children growing up in rich families.

• Strong contributor to patterns of social mobility
  – Low income $\rightarrow$ poor attainment $\rightarrow$ low income

• Gaps start very early in life, but tend to widen throughout school.

• Increasing focus on how development of non-cognitive skills and traits might improve outcomes for children from poor backgrounds, particularly as they get older and IQ becomes less malleable.
What I am presenting

• Was part of a larger project charting socio-economic gradient in attainment across childhood

• Investigated contribution of parent and child behaviours, attitudes to education and aspirations to the evolution of this gradient:
  – Early years: home learning environments, parenting styles, health-related behaviours
  – Primary school: lasting influence of early years, maternal aspirations, child’s own ability beliefs
  – Teenage years: young person’s own attitudes and behaviours; lasting influence of parents; material resources in the home
  – Intergenerational factors: parents’ and grandparents’ attitudes; transmission of ability

• All the papers including the work I am presenting today recently published in *Longitudinal and Life Course Studies*, 2011, vol 2(1)
Summary of data sources, and test scores used for analysis

UK cohort, born 2000/01, sample 11,000

Avon cohort, born 1991/92, sample 7,800

English cohort, born 1989/90, sample 13,500

Millenium Cohort Study (MCS)

Avon Longitudinal Study of Parents and Children (ALSPAC)

Longitudinal Study of Young People in England (LSYPE)

Age

3  4  5  6  7  8  9  10  11  12  13  14  15  16

BAS  BAS  K S 1  K S 2  K S 3  K S 4

BAS  BAS  K S 1  K S 2  K S 3  K S 4
Measuring socio-economic position

• Aim is to capture the longer-term material resources of the household
  – Log equivalised household income (averaged across points in time)
  – Reported experience of financial difficulties
  – Mother’s and father’s occupational class
  – Housing tenure

• The measure is constructed using principal-components analysis
• Individuals are then placed into quintiles (fifths) of the population ranked by this measure.
Educational gaps across childhood

Percentile of the test score distribution

Age 3 (MCS)  Age 5 (MCS)  Age 7 (ALSPAC)  Age 11 (ALSPAC/LSYPE)  Age 14 (LSYPE)  Age 16 (LSYPE)

Highest  Quintile 4  Quintile 3  Quintile 2  Lowest

Institute for Fiscal Studies
Educational (percentile) gaps across childhood
Decomposing these gaps: framework for analysis

• Starting point is relationship between SEP and attainment at each age

• Decompose the gap between rich and poor students into the ‘direct effects’ of:
  – Family background: parental education, family demographics
  – Aspirations, attitudes and behaviours: varying at each age

• Factors will explain a larger proportion of the gap if:
  – Factor is highly correlated with socio-economic position
  – Factor has a large effect upon outcomes conditional on all observables

• Development from previous age assessed through inclusion of prior attainment

• Important note: this study highlights statistical associations, and does not imply causation.
Explaining the socio-economic gradient in the early years

• Define set of family background and possible transmission mechanisms (“early childhood caring environment”)

• Family background
  – Socioeconomic position (SEP)
  – Parental education
  – Demographic, and other family background

• Early childhood caring environment
  – Family Interactions (mother-child and between parents)
  – Health and Well-being (birth-weight, gestation, post-natal depression)
  – Childcare usage
  – Home-learning environment (reading, ABCs, numbers, nursery rhymes)
  – Parenting Style/Rules (bed-times, meal-times)
Selected differences in characteristics at age 3 & 5

- **Mother's age at birth**
  - Age 3: 25.0
  - Age 5: 32.2

- **Number of siblings at age 5**
  - Age 3: 1.6
  - Age 5: 1.1

- **Highest HLE Quintile at age 3**
  - 14%
  - 42%
  - 79%
  - 92%
  - 98%

- **Read to everyday at age 3**
  - 14%
  - 22%
  - 42%
  - 79%
  - 98%

- **Regular bed times at age 3**
  - 68%
  - 92%
  - 85%
  - 98%

- **Regular meal times at age 3**
  - 14%
  - 22%
  - 42%
  - 79%
  - 98%
How much of the socio-economic gap in cognitive outcomes at age 3 is explained by these factors?

Total gap to be explained: 23 percentile points

- 34% Parental Education
- 25% Family Background/Demographics
- 16% Family Interactions
- 16% Health and Well-Being
- 10% Childcare
- 16% Home-Learning Environment
- 3% Parenting Style/Rules
- 1% Missing Data
- 1% Residual Gap

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How much of the socio-economic gap in cognitive outcomes at age 5 is explained by these factors?

- Parental Education: 17%
- Family Background/Demographics: 21%
- Early childhood caring environment: 0%
- Missing Data: 0%
- Prior Ability: 1%
- Residual Gap: 8%

Total gap to be explained: 27 percentile points
How much of the socio-economic gap in socio-emotional development at age 3 is explained by these factors?

Total gap to be explained: 22 percentile points
How much of the socio-economic gap in socio-emotional development at age 5 is explained by these factors?

Total gap to be explained: 23 percentile points
How much of the socio-economic gap in cognitive outcomes at age 5 is explained by these factors?

- Gap widens at age (from 23 to 27 percentile points)
- Half of the gap is explained by prior cognitive ability
  - Direct effect only: excludes impact via other factors
- 20% via parental education and 17% from family background
- Less than 1% from the early childhood caring environment
- What role for the Home-Learning Environment?
  - HLE at age 3 explains age 5 cognitive outcomes through its impact on age 3 cognitive outcomes
  - No impact of age 5 HLE on age 5 cognitive outcomes
- Demonstrates importance of largely pre-determined factors for outcomes at age 5
Summary of early years findings

- Big differences in cognitive development between rich and poor at age 3, widens by age 5

- Children from poor backgrounds face much less advantageous “early childhood caring environments” than children from better off families.

- Differences in the home learning environment at the age of 3 explain a substantial proportion of socio-economic gradient

- Larger proportion of the gap remains unexplained, or appears directly related to other aspects of family background

- Suggests policies to improve parenting skills and home learning environments in isolation cannot possibly eliminate the cognitive skills gap between rich and poor young children.

- Wide gaps in socio-emotional development more strongly explained by differences in early childhood caring environment
Overall Findings

• The gaps between rich and poor children is already large at age 3 continues to widen until age 14

• The following factors seem to have an important role in explaining the perpetuation of these gaps:
  – Early home learning environment
  – Expectations/ aspirations for education
  – Beliefs in own actions making a difference
  – Behaviour (conduct disorder, hyperactivity, anti-social behaviours etc)
  – Material factors (less heavily measured)

• Suggests a potentially important role for policy if it can be shown that:
  – More positive attitudes and behaviours cause higher attainment
    AND
  – Attitudes and behaviours can be influenced cost effectively
FATHERS
and
CHILDREN’S
LEARNING &
ACHIEVEMENT

Adrienne Burgess
Fatherhood Institute

21 June 2011
Changing times

UK fathers carry out 25% of the family’s childcare related activities during the week, and one-third at weekends - more when both parents work full-time

*(EOC, 2003)*

Where parents are separated, half of all children see or speak with their father at least every week

*(Blackwell & Dawe, 2003)*

In 11% of separated families, children live more or less equally with both parents

*(Peacey & Hunt, 2008)*
School/nursery involvement

Several reliable studies have shown that:
• high levels of *interest* by a father in his child’s school/nursery and education
• his high *expectations* for their achievement and
• his greater *direct involvement* in their learning, education and schools

are associated with children’s
• better exam / test / class results
• higher educational qualifications
• greater progress at school;
• more enjoyment of school
• higher educational expectations;
• better behaviour AND reduced risk of suspension or expulsion (Goldman, 2005)
School/nursery involvement

And these outcomes don’t occur because school-involved fathers are richer or better educated. If a father is
• involved in the school setting
• AND frequently talks to the teacher about his child
• AND talks with his child at home about school
then the child is likely to achieve better – whatever the family background (McBride et al, 2005; 2004)

In a low-income US sample, more than 50% of fathers had no contact with their kindergarten child’s teacher; and in infants’ school only 10% of family-school communication was with fathers

(Rimm-Kaufmann & Zang, 2005).
School/nursery involvement

Father’s greater school/nursery involvement is associated with
• mother’s greater school/nursery involvement
• father’s education level
• the presence of a step-mother (Nord et al, 1998).

Among non-resident fathers, additional factors are:
• mother’s education level
• whether child support is paid (Nord et al, 1998).

When working hours are taken into account, there is little difference between mothers’ and fathers’ reading with children, helping with homework, helping out in classrooms or feeling involved in schooling (Peters et al, 2008; Williams et al. 2002).
School involvement

Non-resident fathers are less likely to engage with their children’s schools: 31% of the non-resident fathers who have contact with their children go into their schools, compared with 75% of fathers who live at home (Nord et al, 1998)

70% of co-resident fathers and 81% of non-resident dads want to be more involved in their children’s education (Peters et al, 2008)

Fathers’ commitment to their child’s education + involvement with school are associated with children’s better behaviour at school, including reduced risk of suspension or expulsion (for review, see Goldman, 2005)
Involvement levels at home

Fathers’ greater involvement in *routine childcare* is associated with children’s higher school grades (Hoffman & Youngblade, 1999).

Sensitive/supportive/substantial father involvement from *the month following birth* is connected with a range of positive outcomes in babies and toddlers, including better language development and higher IQs at 12 months and 3 years (Yogman et al, 1995; Magill-Evans & Harrison, 1999).

High involvement by fathers *with their 6 year olds* is linked with the children’s higher IQ and achievement at ages 7 and 11 (Nettle, 2008; Flouri & Buchanan, 2004; Gottfried et al, 1988).
Involvement levels at home

High father-involvement with 7-11 year olds is linked with better national examination performance at age 16

(Lewis et al, 1982).

A father’s interest in his child’s education at age 11 has more influence than family background or the child’s personality or poverty on education success (Hango, 2007).

Conversely, low interest by fathers in their children’s education has a stronger negative impact on their achievement than contact with the police, poverty, family type, social class, housing tenure and child’s personality.

(Blanden, 2006)
Literacy

One third of fathers of young children read with them at least several times a week (for review, see Clark, 2009) including in low income families (Duursma et al, 2008).

However, more than half never read to them (compared with only 4% of mothers who ‘never read’) (Duursma et al, 2008).

While more unemployed than employed fathers read to their children every day (19% v. 15%), a larger proportion (8% v. 3%) never read to them (Jones & Smith, 2008)
Literacy

When talking with children fathers use longer and more abstract words than mothers (Pancsofar & Vernon-Feagans, 2006; Lamb & Tamis-LeMonda, 2004)

Mothers more often refer to emotions (which predicts children’s emotional understanding) (LaBounty et al, 2008)

Fathers more often use explanatory language (which predicts children’ ability to understand how other people think) (LaBounty et al, 2008)
Literacy

Among children born to teenage mothers greater father-child contact is related to fewer child behaviour problems and also to children’s higher reading scores (Howard, Lefever, Borkowski & Whitman, 2006).

Frequency of fathers’ reading to 1-2 year olds is linked with their greater interest in books later (Lyytinen et al, 1998)

The social class effect is substantial: highly-involved middle-class fathers have a greater (positive) impact on their children’s IQs than highly-involved working-class dads (Nettle, 2008).
Boys or girls?

In low income communities, fathers’ influence has been found to be more significant than mothers’ for boys’ (but not girls’) escape from disadvantage (Blanden, 2006)

Fathers exert greater influence than mothers on boys’ educational choices (Dryler, 1998)

HOWEVER . . .

In a wider sample, fathers’ interest in their children’s educational outcomes at age 10 predicted educational attainment in their daughters, but not their sons! (Flouri, 2006)
AND . . .

Asian fathers’ approval, closeness and sympathy with their children are associated with positive teacher-child relationships for both boys and girls (Ang, 2006)
Dads can learn . . .

When staff engage with dads, this has been found to lead to

* improved behaviour (by dads) and parenting style;
* increased knowledge and understanding of child development;
* increased confidence in their parenting skills;
* more sensitive and positive parenting
* greater involvement in infant and child care
* greater interaction with children

(for review see O’Brien, 2004)
Engaging with both parents works best. . .

- Intellectual gains in six month old infants were greater when both mothers and fathers were trained in infant-communication (Metzl, 1980)
- Working with both parents to achieve positive change for children is “significantly more effective” than working with just one parent (Bakernans-Kranenburg et al, 2003)
INCLUDING FATHERS: ‘HOW?’
Fathers are three times more likely to be involved if a school or nursery is mature” in its engagement with fathers (Raikes et al, 2005):

- There is an agency-wide commitment to engaging fathers
- Staff view fathers as co-parents, not as ‘add on’ parents
- The agency sets out to meet both mother and father when registering the child
- Relationships with fathers (as with mothers) are routinely built
- Fathers are continually reminded that their engagement with the school/nursery will benefit their child
- Staff address fathers from a strengths-based, solution-focused perspective – which includes asking for THEIR help and input
• A father-involvement co-ordinator is appointed and trained

• The whole staff team are trained

• Parent-engagement points are reviewed and adjusted – e.g. to meet needs of working mothers and fathers

• There is ongoing critical reflection and learning by staff / management

• Fathers are continually reminded that their engagement with the school/nursery will benefit their child

• **Father-only activities or fathers’ groups are NOT the only or main way fathers are engaged with**
Beware of fathers’ groups!

THEY CAN . . .

• Draw some fathers into the service more widely
• Help identify “champion dads” who may undertake volunteer work

BUT THEY

• Are unpopular with most fathers (only very few will attend men-only groups)
• Can marginalise men, so they don’t get involved in the nursery/school/Children’s Centre more widely
SIMPLE CHANGES CAN BE EXTRAORDINARILY EFFECTIVE!

In Australia, Fletcher (1997) reports fathers almost flooding into schools when specifically invited.

In Grantham, Lincolnshire (2009) two health visitors conducted a comparative study in which one continued to use the standard letter about the primary birth visit (“Dear parents”) while the other used a new father-inclusive version (“Dear new mum and dad”). With the standard letter 3 out of 15 dads attended with the father-inclusive letter 11/16 dads attended.
• **Dads Included Toolkit** - practical know how for services
• **Dads Included Network** - services, commissioners, policymakers, employers etc who are committed to supporting father-child relationships. Register by emailing champions@fatherhoodinstitute.org
• **Dads Included Test** - self assessment framework
• **Dads Included subscription service**, including detailed online Dad Included Test Logbook, support from Regional Development Officers, 10% discount on all products & services
The Six Dad Included Test Commitments

- Leadership
- Team
- Environment
- Marketing and communication
- Recruiting fathers
- Monitoring and evaluation
Dad Factor TRAINING is available as a one-day INSET course and a half-day mini-conference
Parenting and mental health over the life course

Barbara Maughan
MRC Social, Genetic & Developmental Psychiatry Centre
King’s College London, Institute of Psychiatry
Dimensions of parenting

• *involvement and responsiveness*
  – warmth, availability, positive engagement, and support

• *behavioural control*
  – discipline, expectations, monitoring, and behaviour management
Dimensions of parenting

- involvement and responsiveness
  - warmth, availability, positive engagement, and support
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High

Authoritative
Dimensions of parenting

- involvement and responsiveness
  - warmth, availability, positive engagement, and support
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<td><strong>Low</strong></td>
</tr>
<tr>
<td><strong>High</strong></td>
<td><strong>Low</strong></td>
</tr>
</tbody>
</table>
Dimensions of parenting

- involvement and responsiveness
  - warmth, availability, positive engagement, and support
- behavioural control
  - discipline, expectations, monitoring, and behaviour management

<table>
<thead>
<tr>
<th>Involvement</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td>High</td>
<td>Authoritative</td>
</tr>
<tr>
<td>Low</td>
<td>Authoritarian</td>
</tr>
</tbody>
</table>
## Parenting styles and youth outcomes

15 year-olds, BHPS Youth Panel

<table>
<thead>
<tr>
<th></th>
<th>Authoritative</th>
<th>Authoritarian</th>
<th>Permissive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Happy</td>
<td>+</td>
<td>- -</td>
<td>- -</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>+</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sad</td>
<td>-</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Fights</td>
<td>-</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Friends use drugs</td>
<td>-</td>
<td>+</td>
<td>++</td>
</tr>
</tbody>
</table>

Chan & Koo, 2011
Interpreting the evidence

are the associations causal?

Parenting → Child outcomes
Interpreting the evidence

1. ‘Evocative’ child effects on parenting
Interpreting the evidence

2. Bidirectional influences

Temperament←Parenting→Child outcomes
Interpreting the evidence

3. Interactions with child characteristics

Parenting → Temperament A → Child outcomes → Temperament B → Parenting

Temperament A → + +

Temperament B → --
Interpreting the evidence

4. Differential susceptibility
   Belsky, Pluess

Temperament A → Parenting A → Child outcomes
   + +

Temperament A → Parenting B → Child outcomes
   - -

Parenting A → Temperament A

Parenting B → Temperament A
Interpreting the evidence

5. Confounding…

Temperament → Parenting → Child outcomes
Interpreting the evidence

5. Confounding...
Interpreting the evidence

5. Confounding…
Role of genes?

**Genetic effects likely to be implicated**

- most mental health problems moderately heritable
- many ‘parenting’ indicators influenced by genes
  - *parents’ heritable traits influence the environments they provide for children*
    - maternal depression, parental antisocial behaviour
  - *children’s heritable traits elicit / ’select’ aspects of parenting*
Types of evidence needed to draw \textit{causal} conclusions

- longitudinal designs
- intervention studies
- genetically informative designs
  - adoption studies
  - children of twins
  - discordant MZ twins
Parenting and child/adolescent mental health

**Most salient aspects**
- lack/loss of committed, harmonious relationships
- disorganized, unpredictable
- harsh and punitive
- dangerous / anxiety-provoking
- severely lacking in stimulation
- lacking sensitive responding to children’s needs
Parenting and mental health

Adulthood
Childhood adversities and increased risk for first onset of mental disorder

WHO World Mental Health Surveys (n=51,945)

Parental mental illness
Sexual abuse
Physical abuse
Parental substance misuse
Family violence
Parental criminality
Neglect

Kessler et al, 2010
Childhood adversities and risk for first onset of mental disorder

WHO World Mental Health Surveys (n=51,945)

Parental mental illness
Sexual abuse
Physical abuse
Parental substance misuse
Family violence
Parental criminality
Neglect
Economic adversity
Parental death
Parental divorce

Odds Ratio

Kessler et al, 2010
## Mental health consequences of child maltreatment strength of evidence (Gilbert et al, 2009)

<table>
<thead>
<tr>
<th>Mental health</th>
<th>Prospective studies</th>
<th>Retrospective studies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Behaviour problems as child/adolescent</strong></td>
<td>Strong</td>
<td>Strong</td>
</tr>
<tr>
<td><strong>Post-traumatic stress disorder</strong></td>
<td>Strong</td>
<td>Strong</td>
</tr>
<tr>
<td><strong>Depression</strong></td>
<td>Moderate</td>
<td>Strong</td>
</tr>
<tr>
<td><strong>Attempted suicide</strong></td>
<td>Moderate</td>
<td>Strong</td>
</tr>
<tr>
<td><strong>Self-injurious behaviour</strong></td>
<td>Weak</td>
<td>Weak</td>
</tr>
<tr>
<td><strong>Alcohol Problems</strong></td>
<td>Moderate</td>
<td>Strong</td>
</tr>
<tr>
<td><strong>Drug misuse / dependence</strong></td>
<td>Weak</td>
<td>Strong</td>
</tr>
<tr>
<td><strong>Aggression, Violence, Criminality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Criminal Behaviour</strong></td>
<td>Strong</td>
<td>Strong</td>
</tr>
</tbody>
</table>
What accounts for long-term effects?
Some pathways for effects of early adversity

- **Environmental continuities**
  - increased risk exposure later in life

- **Continuities from disorder in childhood**
  - long-term health sequelae

- **Development of ‘health capital’ - biological, psychological & social**
  - resilience / vulnerability to later risk
Some pathways for effects of early psychosocial adversity

• *Psychological vulnerabilities*
  – dysfunctional views of self & relationships
  – dysfunctional coping styles

• *Physical effects*
  – chronic exposure to early stress - effects on
    • cardiovascular system, immune system, neurobiological functioning
Sensitization to later stress

NESARC - Men

McLaughlin et al, 2010
Not all individuals show adverse outcomes

What accounts for ‘resilience’?
Isle of Wight follow-up study
adolescence - mid-life

- 10% reported early physical/sexual abuse
- abuse associated with increased risks of:
  - recurrent depression; suicidality; PTSD; substance abuse
- 45% abused group reported no adult psychopathology
- factors associated with ‘resilience’
  - low neuroticism
  - one parent rated as caring
  - positive adolescent peer relationships
  - positive adult marital relationships
  - positive friendships in adulthood

Collishaw et al, 2007
Summary

• robust evidence of associations between parenting and mental health
  – in childhood / adolescence
  – in adulthood
• increasing evidence that these links are causal
  – but methodological challenges…
• pointers to processes underlying long-term effects
• pointers to ‘resilience-promoting’ factors
Parenting and mental health over the life course

Barbara Maughan
MRC Social, Genetic & Developmental Psychiatry Centre
King’s College London, Institute of Psychiatry
The role of parenting in the development and treatment of childhood anxiety disorders

Cathy Creswell
MRC Clinician Scientist Fellow & Hon Consultant Clinical Psychologist

Berkshire Child Anxiety Clinic
Winnicott Research Unit
University of Reading, U.K.
Anxiety disorders in childhood are common and serious

- Characterised by excessive fear/worry and avoidance/distress
- Affect 5-10% of children
- Have a significant adverse impact on emotional, social and academic development
- Are often stable over time
- Increase risk of development of other problems, e.g. depression, substance abuse
Current anxiety disorder amongst the mothers of anxious (n=85) and non-anxious (n=45) children

Cooper et al (2006) *J. Affect Disorders*
Implications of parental anxiety for treatment

Creswell, Willetts, Murray, Singhal, & Cooper (2007), CPP
Pathways to child anxiety
Creswell, Murray, Stacey & Cooper (2010)

- **Parental Anxiety**
  - Child biological/genetic vulnerability
  - Life Events/Lifestyle/Socialisation
  - Anxiogenic modelling, information transfer

- **Child Anxiety**
  - Expectations of high child threat/distress, low control
  - Parental over-involvement and reduced encouragement

- Parental anxiety accounts for the factor
- Parental anxiety raises the risk of the factor
Pathways to child anxiety
Creswell, Murray, Stacey & Cooper (2010)

Parental Anxiety

- Expectations of high child threat/distress, low control
- Child biological/genetic vulnerability
- Life Events/Lifestyle/Socialisation
- Anxiogenic modelling, information transfer

Child Anxiety

- Information processing biases
- Avoidant behaviour
- Physiological response

Parental anxiety accounts for the factor
Parental anxiety raises the risk of the factor
Parent cognitions and behaviour

Parental control

Parents’ expectations of child distress

Creswell, Brewin & O’Connor (2008), *BCP*
Parental control/ lack of autonomy granting

• Excessive regulation of behaviour and discouragement of independence leads to
  – child belief that world is dangerous
  – reduced sense of competence and mastery
  – Reinforcement of avoidance of challenge

• Parental autonomy-granting reliably associated with child anxiety (McLeod et al, 2007; ES= 0.42)
  ≈ control/ encouragement
Increased parental control leads to increased child anxiety

Thirlwall & Creswell, 2010
Pathways to child anxiety
Creswell, Murray, Stacey & Cooper (2010)

Parental Anxiety

Expectations of high child threat/distress, low control

Child biological/genetic vulnerability

Life Events/Lifestyle/Socialisation

Anxiogenic modelling, information transfer

Parental over-involvement and reduced encouragement

Child Anxiety

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Avoidant behaviour
Physiological response

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Parental anxiety accounts for the factor
Parental anxiety raises the risk of the factor

Child Anxiety

- Information processing biases
- Avoidant behaviour
- Physiological response
Parental anxiety and cognitions

Increased parental anxiety is associated with:

• Increased threat interpretation in relation to the child (Gallagher & Cartwright-Hatton, 2008; Lester et al, 2009)

• Increased predictions that child will feel threatened and be distressed (Creswell & O’Connor, 2006; Gallagher & Cartwright-Hatton, 2008)

• Reduced expectations for parental control of child’s anxious behaviour (Wheatcroft & Creswell, 2007)
Pathways to child anxiety
Creswell, Murray, Stacey & Cooper (2010)

- Parental anxiety
- Child biological/genetic vulnerability
- Life Events/Lifestyle/Socialisation
- Anxiogenic modelling, information transfer
- Expectations of high child threat/distress, low control
- Parental over-involvement and reduced encouragement

Parental anxiety accounts for the factor
Parental anxiety raises the risk of the factor
Parental encouragement

The intergenerational transmission of social anxiety  (Murray & Cooper, 2000-)

4000 screened

165 low scorers

32 (19.4%) refused
9 (5.5%) ineligible
123 interviewed
21 other disorders
101 controls
94 recruited

Controls

525 high scorers

124 (29.3%) refused
67 (12.8%) ineligible
128 social phobia
108 social phobia
99 recruited

SP

94 recruited

GAD

55 recruited

139 non-cases

57 gad

304 non-cases

4000 screened

101 potential controls

1 social phobia

108 social phobia

57 gad

139 non-cases
Behaviours of mothers with social phobia in social challenge

Murray, Cooper, Creswell, Schofield, & Sack, 2007, JCPP
Social responsiveness of 10 week old infants of Socially Phobic mothers

Murray, Cooper, Creswell, Schofield, & Sack, 2007, JCPP
Pathways to child anxiety
Creswell, Murray, Stacey & Cooper (2010)

Parental Anxiety

- Child biological/genetic vulnerability
- Life Events/Lifestyle/Socialisation
- Anxiogenic modelling, information transfer

Parental over-involvement and reduced encouragement

Expectations of high child threat/distress, low control

Child Anxiety

- Information processing biases
- Avoidant behaviour
- Physiological response

Parental anxiety accounts for the factor
Parental anxiety raises the risk of the factor
Life events/ Socialisation

• Evidence for increased rate of negative life events among anxious vs non-anxious children (e.g. Goodyer et al, 1988, Phillips et al, 2005)

• Increased occurrence in context of parental psychopathology (Fergusson et al, 1995)

• Parental anxiety may also place limits on their children’s wider socialisation experiences.
Active care-taking by people other than the mother (Creswell, Murray & Cooper, in prep)

- Extent of active caretaking at 10 mths by others x maternal group predicted infant sleep problems at 24 mths (Exp(B)=1.26, p=0.04; 95% CI= 1.01-1.58)
- Sleep problems marker for later anxiety/depression? (e.g. Gregory & O’Connor, 2002)
- Similar trend at 10 and 14 mths for anxiety problems
- Effect not explained by infant inhibition
Pathways to child anxiety
Creswell, Murray, Stacey & Cooper (2010)

- Parental Anxiety
- Child biological/genetic vulnerability
- Life Events/Lifestyle/Socialisation
- Anxiogenic modelling, information transfer
- Expectations of high child threat/distress, low control
- Parental over-involvement and reduced encouragement
- Child Anxiety

Parental anxiety accounts for the factor
Parental anxiety raises the risk of the factor

- Information processing biases
- Avoidant behaviour
- Physiological response
Modelling of anxiety

![Graph showing fearfulness, avoidance, and positive emotional tone with p values](image)

- Fearfulness: p < .01 (non-anxious), p < .001 (socially-anxious)
- Avoidance: p < .01
- Positive emotional tone:

---

de Rosnay, Cooper, Tsigaras & Murray (2006)
Modelling: the interaction of parental behaviour and child temperament

de Rosnay, Cooper, Tsigaras & Murray (2006)
de Rosnay, Cooper, Tsigaras & Murray (BRAT, 2006)
de Rosnay, Cooper, Tsigaras & Murray (BRAT, 2006)
Summary and questions to be addressed

- Parental anxiety raises the risk of factors associated with the development of anxiety
- Parental anxiety is associated with poorer outcomes from treatment for child anxiety

- What needs to change?
  - Parental anxiety
  - Parental beliefs & behaviours?

- Parent Anxiety Management led to improved outcome (Cobham et al, 1998)- although no change in parent anxiety!
- Brief treatment focussed on parental anxiety did not improve outcomes (Hudson, Rapee et al, unpbl)
Mother child interaction (MCI) treatment incorporating video feedback

- **Have confidence** in your child and show it!

- **Show your child** how to be independent.

- **Allow and encourage** your child to be independent.

- Show respect for your child’s **struggle**.
Case series for MCI
Maternal expectations - Black box

![Bar chart showing differences in child performance, distress, control, and need for help pre and post intervention.](image)

Pre
Post

- Child performance
- Child distress
- Child control
- Child need for help

*** Significant difference
** Significant difference
Case series for MCI
Maternal expectations –
Hypothetical ambiguous scenarios

### Results

- **Threat to child**: Pre > Post
- **Child distress**: Pre > Post
- **Child control**: Pre > Post
Case series for MCI
Maternal behaviours - Black Box

- Positivity/Encouragement
- Intrusiveness/Involvement

Pre vs Post:
- Positivity/Encouragement: Pre > Post
- Intrusiveness/Involvement: Pre < Post

Significance:
- * indicates significance
- *** indicates high significance
Mother-Child Interaction (MCI) treatment:
Using video-feedback to challenge parental cognitions and promote autonomy granting behaviours
Case series (n=15); Clinical Global Impressions- Improvement (CGI-I)
The Mother and Child (MaCh) programme: Treatment of child anxiety disorder in the context of maternal anxiety disorder

<table>
<thead>
<tr>
<th>Condition</th>
<th>Group 1: CCBT/MCBT N=70</th>
<th>Group 2: CCBT/MCI N=70</th>
<th>Group 3: CCBT/Control N=70</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard child treatment</td>
<td>Child cognitive behaviour therapy (CBT) (child: 8 sessions)</td>
<td>Treatment for maternal anxiety (CBT) (mother: 8 sessions)</td>
<td>Control (mother: 8 sessions)</td>
</tr>
<tr>
<td>Treatment of maternal anxiety</td>
<td>Treatment for maternal anxiety (CBT) (mother: 8 sessions)</td>
<td>Control (mother: 2 sessions)</td>
<td>Control (mother: 8 sessions)</td>
</tr>
<tr>
<td>Treatment of mother-child interaction</td>
<td>Control (child and mother: 2 sessions; mother 2 sessions)</td>
<td>MCI (child and mother: 2 sessions; mother: 8 sessions)</td>
<td>Control (child and mother: 2 sessions; mother 2 sessions)</td>
</tr>
<tr>
<td>Total therapist contact</td>
<td>Child: 8 sessions; Mother: 10 sessions</td>
<td>Child and mother 2 sessions</td>
<td>Child and mother 2 sessions</td>
</tr>
</tbody>
</table>
Conclusions and implications

• Anxiety disorders in childhood are common and serious
• Parental beliefs and behaviours that promote child anxiety, may
  – inadvertently arise as a response to child anxiety
  – be particularly likely in the context of parental anxiety
• Effective parenting to promote child well-being:
  – Focuses on parents’ beliefs and behaviours
  – To encourage child confidence, autonomy, and independence
Thank you

c.creswell@reading.ac.uk
EARLY PARENTING AND FAMILY INTERVENTIONS:

EXAMINING THE EVIDENCE-BASE ACROSS FAMILIES, CONTEXTS AND CULTURES

Frances Gardner
Professor of Child and Family Psychology
Dept Social Policy & Social Intervention
University of Oxford, UK
CLS talk at IOE, 21 June 2011
Parenting interventions: for improving parenting skills preventing and treating early conduct problems.

Outline:

- Basic evidence on parenting interventions from RCTs and systematic reviews - effectiveness & mechanisms of action.
- To what extent does this evidence apply across contexts found in ‘real world’ practice? --
  1. For which children & families? - by family risk, maternal mental health, child factors, abuse. Moderator & predictor designs.
  2. Across different types of service settings?
  3. Across cultures and countries?
  4. Can they be taken to scale?
Why parenting interventions?

Parenting skill is strong predictor of:
- child maltreatment & problem behaviour
- later school failure; offending, drug use; mental illness; partner violence (Capaldi et al.)

Parenting as final ‘common pathway’ (Rutter) mediates between family context (eg poverty, parent mental health) & child outcome
(same in rats....)
Parenting interventions: What are they?
Essential components of effective parenting programmes

Specific factors
- eg social learning, attachment theory -underpinning intervention

General factors
- eg relationship & counselling skills; respecting parents goals & values

Effective programmes tend to share general & specific principles eg
- Triple P (Sanders)
- Incredible Years (IY) (Webster Stratton)
- Parent Management Training (PMTO) (Forgatch)
- Parent-Child Interaction Therapy (PCIT) (Eyberg)
- Family Check Up (FCU) (Dishion et al., 2008)
Specific components of effective parenting interventions

- Emphasise **principles** rather than prescribe techniques
- Active **problem solving** by parents around own family needs
- Using ‘social learning’ principles: eg importance of parent-child interaction, reinforcement, clarity, consistency.
- Start with relationship building, praise and rewards,
- Later – move onto discipline strategies
- Parents apply principles to own situation, to change parenting behaviour
Example: Incredible Years Basic parenting programme - principles and components

12 -14 weekly sessions, two hours. Collaborative leader style, start with parents needs & goals. Parents use active problem-solving to apply principles to own situation. Not didactic.

Focus on behavior change: video, discussion, role-play practice; home practice with child.

Materials to support program: tip sheets, books, CDs etc.

Parents receive weekly feedback; between session support from group leaders.

Groups must be accessible for parents (time, place, language, food, child care).
Play: Promote Positive Parent-Child Relationships

Praise & Incentives: Build Social Competence

Effective Limit Setting: Increase Cooperation

Ignore, redirect, distract: Decrease Aggression

Time Out: Use Selectively

Use Liberally

PARENTING PYRAMID

The Incredible Years Training Series 3/00
Parenting interventions: how do we know they work?
What constitutes good evidence?

Randomised controlled trial (RCT):
Considered ‘gold standard’ for minimising bias in evaluation
Well-worked out methods for complex interventions;
parents’ views **central** to evaluation
Good quality research is expensive, but so is ineffective or untested practice - even more so
Well-meaning interventions may do no good - and worse, may do harm (ethical obligation).
Many examples of well-liked interventions doing harm

Systematic Review:
Summarise findings of trials - rigorous, transparent, replicable, up to date. Very useful for policy
Effective parenting interventions: What is the evidence base?

Assuming we know what constitutes good evidence-
Over 100 randomised trials (efficacy trials?), many good systematic reviews (Barlow - Cochrane reviews, NICE guidance)
Show effectiveness of structured, cognitive-behaviourally based parenting interventions for:
- Reducing child problem behaviour
- Increasing positive and reducing harsh parenting; improving parent confidence and depression
- Reducing child maltreatment – promising evidence that same programmes work
- Early interventions – also middle childhood and teens
- Some replications by independent teams, different places.

All this evidence – where does it come from? Is it applicable to a wide range of families & children, those in my service?
Data from RCTs suggests effective for a range of families:

- Low income and average families
- Families with complex, multiple needs (e.g., maternal mental illness, history of maternal abuse, high poverty, those with incarcerated sibs (e.g., Scott; Webster-Stratton; Gardner). Need to remove barriers.
- Child problems range from severe conduct disorder to mild problems or none; children with multiple problems (e.g., ADHD, learning disability)
- Families involved in the child protection system
- We tested in our UK trials - if intervention more or less effective for disadvantaged subgroups (moderator analyses)
Examples of randomised trials of parenting interventions:

Do they work in UK ‘real world’ settings?
Treatment trials - referred for moderate-severe conduct problems

London, CAMHS (Scott et al., 2001): age 3-8
Oxford, community-based in voluntary sector (Gardner et al., 2006): age 2-9

Prevention trials - targeting those with emerging conduct problems

North Wales Sure Start: (Hutchings et al 2007; Gardner et al, 2010). In multiple ‘Sure Start’ services, age 3-5.
London, Primary Schools: two trials (Scott et al 2010 a b). Parents of 5-6yr olds.
Oxford parenting trial in voluntary sector: Family Nurturing Network  (Gardner et al. 2006, JCPP)

76 children age 2-9, referred for mod-severe conduct problems Randomised to Incredible Years groups in 5 sites, vs wait-list.

Found strong intervention effects (ES .5 -.8) on:
- child conduct problems; and siblings
- positive and negative parenting skill
- by parent report & direct observation in home;

Intention-to-Treat analyses
Effects maintained to 18 month follow up.
High consumer satisfaction.

To what extent a ‘real world’ service? Testing real practice, in small charity, local venues, low paid, non-clinically-trained staff. Yet dedicated to IY program.
133 children 3-5 yrs, screened by health visitors for risk for conduct problems, in 11 Sure Start areas
Randomised to ‘Incredible Years’ parenting groups vs. wait-list.
Found large intervention effects on:
- Child conduct problems (ES .9), ADHD (ES .6)
- Positive and negative parenting skill (ES .6 - .9)
- by both parent report and direct observation in home.
- Parent depression (ES .5) & stress.
- Sibling conduct problems (ES .7)
Effects maintained for 1 yr+ (but no control group after 6mos)
Effect Sizes impressive – from Intention-to-Treat analyses
First ever truly ‘real world’ study to get these effects?
Observed Positive parenting:
(sum of praise, affectionate, positive affect, problem-solving)

Control  n=46
Interven n=84
F=9.2, p=.003
ES .56
Mediators of change in parenting interventions: these ask: how do they work, or what are the active ingredients of intervention?
Why investigate mediators of change in parenting trials?

1. **Clinical questions:** Is the intervention working in the way we think it is? What are key active ingredients that we need to emphasise?

2. **Scientific questions:** Can test theories of intervention change, and, combined with longitudinal studies, test theories of developmental change (Rutter, 2005). For example:

Positive parenting shows up as predictor of natural change in child problem behaviour – does it also work as mediator of intervention change? (Dishion et al 2008; Gardner et al 1999; 2003, 2006, 2007, 2010). If so, powerful evidence for a causal role ......
Could we identify mediators of change in our UK parenting trials?

- Oxford trial: found change in observed positive parenting in the home predicted change in child problem behaviour. Replicated in Wales & US trials (Gardner et al. 2006, 2010; Dishion et al 2008)

- Oxford trial: also tested competing mediation models, asking which is more important in driving intervention change? – is it change in parents’ confidence about parenting; or change in positive, or in harsh parenting? 

- although all these outcomes were improved by intervention, only change in positive parenting skill appeared to be driving change in child behaviour (Gardner et al. 2006)

-- change in maternal depression also mediated change in child outcome in Wales and US studies
Moderators of change in parenting interventions:

these ask: for whom do they work, or do they work better for some than others?
Can parenting interventions help diverse families, or those that are very troubled or marginalised?

1. **Which families?** Socio-demographic, parent factors, eg mental illness

2. **Which children?** Age, gender, complex needs- eg severe conduct problems; co-morbid problems - ADHD, anxiety; children who show ‘callous’ traits; in child protection system.

3. Across different **cultures & countries**?
Why investigate moderators of change in parenting trials?

**Clinically**: Identifying groups for whom intervention is suitable; subgroups which might need extra therapeutic effort, or where might do harm. May challenge beliefs about suitability of client groups for interventions (eg Ollendick et al. 2008).

**Theoretically**: Identifying subgroups that are differentially responsive to intervention - and thus distinct causal mechanisms? cf. Bakermans-Kranenburg
Moderator effects: definition

- In intervention trials, moderator analyses ask whether intervention effects are conditional on baseline characteristics of the sample – i.e., is there an interaction between baseline characteristic & intervention effect.
- or- does one sub group have better or worse outcomes than the other, compared to the equivalent subgroup in the control group.
- moderators are distinct from ‘predictors’ of outcome - which may be associated with outcome only in the treatment group.
Studies of moderator effects in parenting intervention trials

Not many moderator studies; many more predictor studies, including two meta-analyses:
- Lundahl et al., 2006, n=63 studies;
- Reyno & McGrath, 2006 n=31 studies
  - both found:
  - More distressed & disadvantaged families did worse
  - A clear-cut finding despite combining across mixed bag of small trials?
- Not good - is that end of story....?
Limitations of these meta-analyses

- Most analysed predictors, not moderators
- Doesn’t tell us if certain interventions are good at reaching the most distressed
- Some omitted & excluded studies give a different picture:
  - Moderator analyses in large US ‘Incredible Years’ trials reached quite different conclusions (Beauchaine et al. 2005; Baydar et al. 2003)
  - What is known about moderator effects in UK trials?
What did we find in Wales? Moderator effects in Incredible Years trial - Gardner, Hutchings et al, 2010

What outcome? - change in parent-reported conduct problems

What family predictor variables?...

*Found:* No family risk factors were associated with poorer treatment outcome
- low income, lone parent, teen parent – just as likely to do well

But, some were associated with better outcomes - mother depression, parenting stress.

Very similar pattern in Oxford trial; in Family Check Up trial in US (Gardner et al., 2009)
Family Check Up (FCU): Intervention effects on Child Problem behaviour by parent education level (Gardner, Dishion et al 2009 JCCP)
Child characteristics as moderators

Clinically, what kinds of kids – those with more severe conduct problems, or co-morbid problems- ADHD, internalising, callous traits?

At what age is it better to intervene?
Children with severe conduct problems and co-morbid problems

- Children who were boys, had high ADHD, high conduct problems did better in Wales trial (Gardner et al, 2010; Jones, Hutchings et al. 2009)
- Ollendick review (2008) showed co-morbid kids did not do worse in interventions for conduct problems (nor for anxiety, depression)
- Trial of IY parent & child program for referred, diagnosed ADHD kids aged 4-6 – found effects on parenting, ADHD, ODD (Webster Stratton 2010)
'Callous unemotional' children thought to be hard to treat - low anxiety, guilt, unresponsive to socialisation, esp. punishment.

Is there any evidence that kids with high levels of CU are less responsive to parenting interventions?

Very few studies addressing this question:

- Hawes & Dadds (2003) **Yes**. Kids 4-8 with conduct problems showed poorer treatment outcome if also had high CU traits. Predictor study only - don’t know if might have been same for control group CU kids.

- Hyde, Shaw, Gardner, Dishion (2011) **No**. Toddlers at risk for conduct problems showed similar outcomes in Family Check Up intervention, if had high or low CU traits. Moderator design.

- Teen delinquents with CU - did as well with CBT in US study.
Conclusions:

family and child moderators:

- Recent trials show **no moderator effects** for most family risk variables - contrast with older literature.
- No evidence that more troubled families / kids respond less well. Outcomes as good or better if mother depressed, very poor, low education, teen parent, high ADHD, other co-morbidity.

- What might be common factors in interventions (IY, FCU) that reach more troubled families?
  - To varying degrees, both use tailored, individualised approach
    - In IY, collaborative group process
    - In Dishion’s Family Check Up, Motivational Interviewing techniques to enhance parent engagement, desire for change
Does age of the child matter?
Surely early intervention is better?
Early intervention?

- Many ways to investigate this question...

- Use longitudinal studies, examine evidence for biological and social mechanisms during sensitive periods in early development

AND

- Examine findings from randomised trials of parenting interventions, and compare by age
Source 1: Parenting interventions: comparing effects by age group between meta-analyses.

**Fill in the blanks: what mean effects would you expect?**

<table>
<thead>
<tr>
<th>Age of children</th>
<th>Mean effect size (WMD)</th>
<th>Primary outcome</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3</td>
<td>?</td>
<td>Parent reported behaviour problems</td>
<td>Barlow et al. 2010 Cochrane review</td>
</tr>
<tr>
<td>3-11</td>
<td>?</td>
<td>Parent reported conduct problems</td>
<td>Dretzke et al., 2009 - NICE/ HTA</td>
</tr>
<tr>
<td>10-17</td>
<td>?</td>
<td>Arrest rates</td>
<td>Woolfenden et al. 2000 Cochrane review</td>
</tr>
</tbody>
</table>
Parenting interventions: comparing effects by age group *between* meta-analyses.

Mean effects based on Cochrane / HTA reviews

<table>
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<tr>
<th>Age of children</th>
<th>Mean effect size (WMD)</th>
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<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-3</td>
<td>0.25</td>
<td>Parent reported behaviour problems</td>
<td>Barlow et al. 2010 Cochrane review</td>
</tr>
<tr>
<td>3-11</td>
<td>0.67</td>
<td>Parent reported conduct problems</td>
<td>Dretzke et al., 2009 - NICE/ HTA</td>
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<tr>
<td>10-17</td>
<td>0.56</td>
<td>Arrest rates</td>
<td>Woolfenden et al. 2000 Cochrane review</td>
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</tbody>
</table>
Source 2: Comparing effects by age group within meta-analyses

<table>
<thead>
<tr>
<th>Age covered</th>
<th>Interventions</th>
<th>What age effects</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-17</td>
<td>All interventions for conduct, anxiety depression</td>
<td><em>more</em> effective with older kids. <em>Corrn r = 0.69 age &amp; effect size</em></td>
<td>Weisz et al (1995)</td>
</tr>
<tr>
<td>2-16</td>
<td>parent training for conduct problems</td>
<td><em>more</em> effective with older kids.</td>
<td>Serketich &amp; Dumas (1995)</td>
</tr>
<tr>
<td>2-5 yrs vs 6-12</td>
<td>parent training for conduct problems.</td>
<td>No age effects</td>
<td>Lundahl et al (2006)</td>
</tr>
</tbody>
</table>
Do parenting interventions work for families with more complex needs/ severe parenting difficulties: families in the child protection system
Families in the child protection system

Webster Stratton (2010). “Adapting Incredible Years (with fidelity) for families in child welfare system”

Analysis of RCT data testing IY parenting programme in Head Start nurseries (n=630)

- 20% of kids were in child protection system
- their problems were worse
- but intervention just as effective for these families - ie improved parenting & child problem behaviour

- Further adaptations of program for families in child protective services: pre-post case series (n=136) showed promising results
Systematic reviews of interventions for children who have been physically maltreated

- Montgomery, Ramchandani & Gardner 2009, for UK DCSF: parenting; family-therapy, child focussed.

**Found**: 7 RCT’s of Parenting Interventions – compared to ‘treatment as usual’

- Most small & poor quality, few had maltreatment outcomes
- Better evidence for improving parenting skills and child mental health outcomes

Promising ? - especially as consistent with:

i) evidence from trials of same interventions with other high risk groups, for reducing harsh parenting;

ii) findings of population-level maltreatment prevention trial
How well do parenting interventions ‘transport’ across service contexts & cultural groups?
In what service contexts have parenting interventions been tested?

**Settings for these randomised trials:**
Many countries; wide range of targets: Universal and targeted prevention, vs ‘treatment’ studies.

**Range of service settings:** health services – primary and specialist, schools, child protection services, community groups, voluntary sector, ‘Head Start’ nurseries, day care, clinics, workplace, nutritional centres, ‘Sure Start’, prisons

**Range of delivery methods:** Individual vs group; home vs centre-based; phone. Media-based, eg computer-programs; TV, reality TV, (Sanders Triple P trials, TV)

Thus can be **flexible** according to family need, preference, context.

Many more settings in practice- these are just the trials!
Can parenting interventions translate well to other cultures?

Cultural factors *(Incredible Years, Triple P; many other examples too):*

- Diverse families in many RCTs
  (Scott -London; Gross- Chicago; Miller- NY Bronx; Webster Stratton- Seattle)

- Bilinguality - how dealt with, especially in group interventions? - approaches in Wales, Seattle

- ‘Consumer testing’ in some countries and cultures (eg Panama, Greece, NZ, Japan).
Incredible Years in different cultural groups?

Large Webster-Stratton (n=650) study based on pooled data from 3 RCTs with diverse low income families in Headstart nurseries (Reid et al., 2003)

- 19% African American, 11% Hispanic, 12% Asian, 50% Caucasian
- found no ethnic differences in any child & parent outcomes, by parent report or direct observation; nor in engagement, attendance, parent satisfaction

In London schools trial, also no effect of ethnicity on outcomes satisfaction, attendance (Scott et al 2010, PALS trial).

Studies of other interventions have found similar results- PCIT, FCU - no differences in outcome by ethnicity.

Patel et al. (2011) study in Asian families in Manchester
Can parenting interventions translate well across countries?

Randomised trials of Incredible Years, Triple P in:
UK, US, Ireland, Canada, Australia, Norway, Hong Kong, New Zealand, Germany, Holland, Iran..

Used in many more: Russia, Thailand, Denmark, Germany, Japan, Portugal, France..

Parenting interventions in developing countries?

One systematic review (Knerr, Gardner, Cluver, 2011).

Found 12 RCTs, none of well-known ‘western’ programs; some innovative trials of high quality - Rahman, Pakistan; Cooper, South Africa.

Offshoots of Incredible Years-type programs:
Hutchings: adaptation in Lesotho; Cluver, Gardner, Lachman development underway in rural South Africa.
Cultural adaptation, fidelity, flexibility?

Essential that programs are culturally sensitive, respect families’ values

But should they be adapted for specific groups? If so, need to do this with **fidelity** - ie retain key ingredients that make it effective

Or should be sufficiently **flexible** not to need multiple versions?

Limited evidence on this issue - Kumpfer ‘Strengthening Families’ trials show poor results for adapted versions; Incredible Years - better results for ‘flexible’ approach....
Instead of adaptation (with fidelity?) -
Maximise flexibility in first place?

Enhance flexibility by building it in from outset –
- thus ‘adaptation’ happens at the level of every family, rather than adapted for the cultural group or country:

eg Incredible Years: although session topics laid out, parents define own goals, generate & test own solutions; staff training rewards adaptation to clients’ situation

This approach brings advantage of embedding in natural communities, fostering tolerance (eg school, nursery) rather than culturally segregated groups, as implied by specific adaptations.
Can parenting interventions be taken to scale?
Taking interventions to scale

- Step beyond mere multiple real-world services-
  How to embed them in service systems so as to reach a larger percent of families that might benefit?
- Will they still be effective? **Fidelity of implementation** a huge challenge..
- Many countries doing / planning more widespread roll out of evidence-based parenting interventions- UK, NZ, Norway, Denmark, Estonia...

  *Two key, visionary examples*
  - South Carolina RCT Triple P in 9 counties (Prinz et al 2009, Prevention Science )
  - England - govt initiative NAPP 2007 - unique vision of how to implement evidence-based interventions
Getting research into practice - rolling out in UK

National Academy of Parenting Practitioners - rationale:

- Many effective parenting programs - however ........
- £££m’s spent on bottom up, home grown programs w/ limited success - Sure Start evaluation.
- Many staff working with parents had little training for parenting work
- Dept Children Schools & Families set up academy in 2007 to address these issues, via training & research.
- Partnership between voluntary sector, government and university - KCL
UK National Academy of Parenting Practitioners:

Goal: To transform quality & size of parenting workforce by widespread training in evidence-based approaches that improve child outcomes

How achieved:
- Testing interventions in UK services – RCTs (eg in youth offending teams, foster care)
- Improving commissioning & evidence-based decision-making
  - Delivering widespread training in Incredible Years, Triple P, Functional Family Therapy, PMTO
- Aim to reach all services & practitioners working with children

Top-down encouragement - offer free training & supervision; selective funding of evidence-based programmes; commissioners / services choose which programme.

Incredible debates in years leading up to this ....
Can you change child outcomes that matter across a whole population?

**Taking Triple P to scale in South Carolina:**

- Only RCT of widespread dissemination of evidence-based parenting intervention
- Aimed to reduce maltreatment in whole population of children 0-8, by implementing Triple-P parenting system, county-wide.
- In a cluster randomised trial design
  - 9 counties randomised to triple P
  - 9 matched comparison counties got ‘services as usual’.
- Popn 85k families in 18 counties

Bold outcome measures – county-level child abuse indicators

**2 years on, found significant reductions in:**

- substantiated child maltreatment,
- child maltreatment injuries
- child out-of-home placements.  (Effect sizes large: 1.1 - 1.2)
Secondary trial outcomes:
Prinz et al 2009, Prevention Science

- Evaluated before & after 2 years of intervention dissemination
- N=649 service providers participated; often in disconnected services
- Public awareness: Up 5-17% in TP; 4.5 - 5.5% in control grp
- Estimated number of families served: 9-13k (? of 42k)
Conclusions from South Carolina trial

- Unique trial, cluster randomising by area to widespread training and implementation as preventive strategy. Fidelity can be a challenge.
- Tall order to change these indicators – yet appeared successful in reducing maltreatment.
- Cost study done - costs low if expressed per child in population (Foster et al, 2008).
What do we know?

- Strikingly strong evidence base.
- Effectiveness evidence appears to transfer across diverse service settings & families, in many countries.
- Appear to be able to engage and help very marginalised families - and to be as effective – sometimes more so - with the highest risk families and more so with the most difficult children (differential susceptibility?), .
- Taking ‘to scale’ a huge challenge - some promising efforts / trials. But political /funding issues huge.
What next?
Areas of research to enhance practice

Tailoring interventions? Evidence suggests good clinicians / good programmes do this quite well already. Can we improve on this?

Moderator studies: - can help us to tailor. Still in early stages - exciting & promising work investigating differential mediating mechanisms in subgroups – explore and interlink basic and clinical processes at multiple levels: genes – brain - behaviour.

Extra-high need families- few large, high quality trials

Going to scale – can we change the health of children at population level?
Some references


http://www.pitt.edu/ppcl/PUBLICATIONS.html#EarlyStepsMultisite

www.education.gov.uk/publications/standard/publicationdetail/page1/DCSF-RBX-09-08A

http://www.pitt.edu/ppcl/PUBLICATIONS.html#EarlyStepsMultisite

http://www.bmj.com/cgi/content/abstract/334/7595/678

Thank you!
Moderator effects on early conduct problems in Family Check Up intervention (Gardner et al., 2009)


For most variables - no moderator effects: i.e. families equally likely to respond at all levels of disadvantage/distress (eg mother depression, teen parent, drug use)

2 significant moderators found:
- Children of mothers with low education did better
- Children of single mothers did worse
Further adaptations for families in child protection system (Webster Stratton 2010):

- Flexibility - eg more sessions for groups that need them; spend longer on: basic relationship building through play; parent attributions, developmental expectations; anger management and hitting
  (similar components to other ‘high-need’ interventions - eg Day; Dawes PUP)
- home visits; collaborate with case workers
- Case series of 136 families in CPS suggests strong effects on parenting & child outcomes, in pre-post design.
Parental leave policies in comparative perspective

Professor Margaret O’Brien

Centre for Longitudinal Studies
Conference, Institute of Education

London 21st June 2011
Outline

• Leave profiles (maternity, paternity, parental provision)
• What do we know about utilisation?
  - Design features to increase male use
• Emergent evidence of impact
  – Family wellbeing
  – Sharing of family responsibilities
  – Labour market behaviour
Leave from employment: UK history

1976
Maternity Leave

1999
Parental Leave

2003
Paternity Leave

27 years
Length in weeks of maternal leave and full-rate equivalent for the average worker, 2008

Length in weeks of parental leave and full-rate equivalent for the average worker, 2008

Nordic countries (except Denmark), Germany and Slovenia have the most generous leave entitlements for fathers

China's boomtown to offer more paternity leave than U.S

A Chinese man feeds his son as he takes part in a pre-school class with his wife at a child care education chain based in Beijing on April 17, 2010. (GOU YIGE/AFP/Getty Images)

Source: Global Post (June 8th 2011) http://www.globalpost.com/dispatches/globalpost-blogs/the-rice-bowl/chinese-province-offer-more-paternity-leave-us
Utilisation - cautionary note

Methodological issues
- variable data quality; different indicators

Key design dimensions influencing utilisation
- individual or family entitlement; level of income replacement, length
- Maternity (individual); Paternity (individual), Parental (individual, family, mixed entitlements)

Complex and ever changing

Source: Yearly International leave audit (Deven & Moss 2002-2011); O’Brien (2009); O’Brien & Moss (2010); Moss (2011)
What works to increase male use?

- Non-transferable individual entitlements
  - Father “branding” (“daddy days”, fathers’ month)
- High income replacement (50% +)
The impact of father’s 4 week quota: Norway

Percentage of eligible fathers who use leave

Introduction of Father Quota

Nordic countries: Percentage of total number of benefit days used by fathers in the event of pregnancy, childbirth and adoption during the years, 2000-2005

Impact

Family wellbeing

- Improved health outcomes: Job protected + paid parental (mostly maternal) leave associated with lower rates of infant mortality, better infant/child health, high rates & duration of breast-feeding; better maternal health (Rossin, 2011; Hawkins et al, 2007; Ruhm, 2000)
- Improved parenting - reading to child at 3 years (Dex, 2007)
- Fertility and couple stability gains (Duvander, 2009)
Impact

Sharing of family responsibilities
- Signalling commitment (Callus, 2005)
- Support to mother and father involvement
  ‘High’ take-up by fathers associated with more engagement with children, more housework and general reduction in work hours (Hass, 1982; Tanaka & Waldfogel, 2007)
- Enhanced paternal sensitivity to infant life-
  Daddy quota ‘home alone’ fathers (Brandth & Kvande, 2003)
Impact

Labour market behaviour

- Prolonged parental leave (female) - negative wage effect (OECD, 2011)
- Shorter well-paid paid maternity/ parental leave strengthens female labour market attachment (Jaumotte, 2003)
- Father’s leave taking – positive earnings effect on maternal wage (Johansson, 2010)
- Embed in wider context of country work-family reconciliation package available to parents
Concluding observations

• Multipurpose policy measure with potential to boost emotional and economic parental investment in early childhood
• More research needed on how maternal & paternal policies operate together
• Access issues – eligibility, insecure labour market
Impacts on child IQ:

- Maternal IQ
- Parental interest in the child
- Family characteristics
- Developmental delay
- Marital relationship quality/conflict
- Maternal mental health

(Smith et al., 1983)
Children of psychiatric patients

Outcome over four year follow up:

- Behavioural or emotional disturbance: 33%
- 'Transitory' psychiatric problems: 33%
- No emotional or behavioural disturbance: 34%

Rutter and Quinton, 1984
Prevalence: the scale of the problem

- Overall, mental health problems affect > 25% of people
- Rates are increasing
- More common in women
- More common in mothers (much of it not clinically diagnosed)

Rates of Depression (12 month prevalence):
- 10% of women and 6% of men
- (up to 35% of mothers with young children)

Rates of Schizophrenia (point prevalence):
- 0.4% for both men and women
Background

- Children of parents with mental health problems are at significantly increased risk of problems
- Impacts are cognitive, academic, emotional and behavioural
- More than half the offspring of parents with mental health problems will experience mental disorder themselves
- Arguably the most important risk factor in the development of psychopathology
Mechanisms of impact/intergenerational transmission

• genetic inheritance
• “epigenetic” effects (GxE interactions)
• direct effects – exposure to symptoms
• disruptions to parenting
• disruptions to relationships
• conflict or violence
Disruptions to parenting: schizophrenia

- Maternal unresponsiveness
- Under stimulation
- Inattention
- Disordered and disorganised parenting routines

Direct effects: schizophrenia

- Involvement of child in delusional behaviour

Children of parents with schizophrenia at highest risk for maladjustment in childhood – 50% risk of problems
Disruptions to parenting: depression

- More negative affect and interactions with children
- Less responsive to children
- Reduced capacity to respond sensitively to children’s cues
- Low expressed warmth
- Inconsistency
- Inattentive, and psychologically unavailable
- ‘permissive parenting’ or
- Over protectiveness

Disruptions to parent/child relationship
Mutual gaze

Increased interactions with baby

Alert and responsive baby

More alert and responsive baby

Increased talking to baby
Reduced mutual gaze

Decreased interactions with baby

Less alert and responsive baby

Less alert and responsive baby

Reduced talking to baby
Parenting Stress

- Mental health problems
- Marital conflict and irritability
- Disruptions to parenting
- Poorer outcomes for children
Stress

Mental health problems

Separation or divorce

Continuing conflict

Disruptions to parenting

Poorer outcomes for children
Interventions

Remarkably few – most treatment individual

Most effective take a psycho-educational approach

- Beardslee and colleagues in USA: Family Talk Intervention (6-8 sessions)
- Solantaus in Finland: ‘Let’s Talk about children’ (1-2 sessions)
'Let’s Talk about Children’

“Our aim is that, whenever parents seek help for their own problems, welfare workers should also ask about their children and support the parents in their parenting”

Professor Tytti Solantaus
An ideal support system needs to be:

- multigenerational – coping with needs of parents and children
- accessible – especially for vulnerable populations
- developmentally (and culturally) appropriate

Barriers

- systemic – different health care systems/practitioners for adults and children
- lack of capacity
- finance
Conclusions I

Mental health problems in parents

- are common,
- are likely to disrupt parenting
- will potentially impact on huge numbers of children
- need to focus on reducing parenting stress
- and increasing social support
Conclusions II

Impacts on children – policy implications

• are at least partly preventable
• currently little is done to support families
• small structural changes could bring very significant improvements