

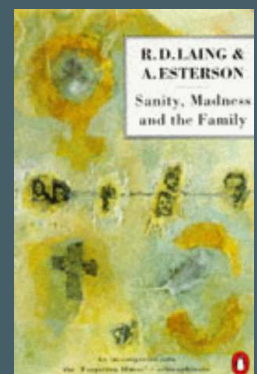
# Childhood maltreatment & psychosis



**Dr Helen Fisher, PhD CPsychol AFBPsS**  
**Lecturer & MRC Population Health Scientist**  
**Institute of Psychiatry, King's College London, UK**

# Background

- Double-bind theory (Bateson et al., 1956)
- Overprotection or rejection by mother (Rosen, 1953)
- Intolerable demands by family (Laing & Esterson, 1964)
- Skewed family milieu (Lidz et al., 1965)
  - Family-blaming culture
  - Backlash by carers' groups (NAMI)
  - Rise of biological psychiatry



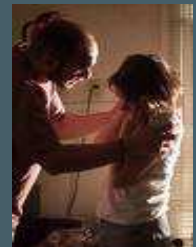


How do we  
define  
childhood  
maltreatment?

# Broader concept of trauma

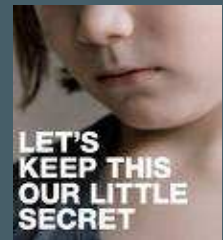
- **Types of childhood trauma (<17)**

- Sexual abuse
- Physical abuse
- Neglect
- Emotional/psychological abuse
- Bullying by peers or siblings
- Separation/death of parent
- Witnessing domestic violence...
- Living with parent(s) with SMI
- Exposure to war, natural disasters, serious accidents etc



# Sexual abuse

- Not limited to household members
- Excludes willing contact with someone of similar age – force and age important
- Any sexual contact <10 considered abuse but less clear cut in teenagers
- Sexual contact with family members, teachers, adult family friends included
- Flashing excluded if by a stranger but included if known person



## Physical abuse

- Members of household only
- Single as well as repeated incidents
- Injury caused/likely
- Usually physical contact but threats with weapon are included – not just verbal
- Doesn't include smacking on bottom
- Peers rated under bullying



# Neglect

- Amount of neglect shown by parents in terms of providing for the child's material, social, educational and emotional needs
- Examples include: child couldn't go to parent if upset, child was not fed and clothed adequately, parents did not attend to child when ill, no interest taken in school work or who child's friends were, parents forgot and did not celebrate child's birthday



## Emotional abuse

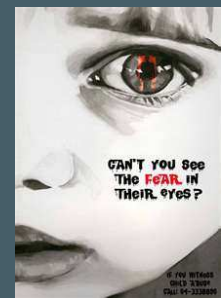
- Members of household only
- Dislike, irritation and coldness shown by parent to child
- Parent makes highly critical or rejecting remarks towards or about child
- Scapegoating or dislike of child in relation to other siblings
- Negative interaction, violence and rejection





# Psychological abuse

- Mainly household members but other adults can be included – teacher etc
- Cruelty with potential to damage social, cognitive & emotional development
- Main types: humiliation, corruption, terrorising, deprivation of basic needs, cognitive disorientation, inflicting distress, extreme rejection & emotional blackmail
- Severity rating based on frequency & number of types – potential for damage more important than actual injury



## Prevalence of childhood trauma

- Rates across the world <18yrs:
  - 1-2% contact sexual abuse
  - 5-11% physical abuse
  - 4-5% neglect
- UK rates for 2009 <18yrs:
  - 1-7% physical abuse
  - 1-11% sexual abuse
- Worldwide gender differences:
  - Sexual: 20% women, 5-10% men

(Finkelhor, 1994)

Kessler et al.  
(2010) British  
Journal of  
Psychiatry,  
197, 378-385

Radford et  
al (2011)  
NSPCC

## Revictimisation

- Children exposed to 1 form of abuse are often repeatedly exposed to the same form of abuse
- A small proportion will be exposed to a range of other forms of abuse - they have the worst outcomes
- Abused children are also at greater risk of (re)victimisation in adulthood

Turner et al.  
(2010)

# Issues related to measurement of childhood maltreatment



## How is it measured?

- Social services' /court/police records
- Child reports of current trauma
- Adult retrospective reports
- Parent/family reports
- Family observation

Official records

Self-report  
questionnaires  
or interviews

Researcher  
observation

# General recall problems

- Normal forgetting
- Infantile amnesia
- Traumatic amnesia
- Rehearsal & interference



(Feldman-Summers & Pope, 1994; Fivush & Hamond, 1990; Rogers, 1995)

## Psychosis-specific problems

They imagine things (Young et al., 2001)

Cognitively impaired  
(Saykin et al., 1991)

Delusional beliefs about  
past (Howard, 1993)

Out of touch with  
reality (Lysaker et al., 2005)

Depressed mood impairs  
recall (Wolfkind & Coleman, 1983)

# Reliability & validity

## ☺ Good concurrent validity

- CTQ: physical abuse  $r_s = 0.77$ ,  $p < 0.01$ ; sexual abuse  $r_s = 0.67$ ,  $p < 0.01$
- PBI: antipathy:  $r_s = 0.350 - 0.737$ ,  $p < 0.01$ ; neglect:  $r_s = 0.688 - 0.715$ ,  $p < 0.01$

Fisher et al (2011)  
Schizophrenia Bulletin,  
37(3), 546-553.

## ☺ Reasonable convergent validity

- case-notes: specificity 97.9% sexual abuse, 100% physical abuse

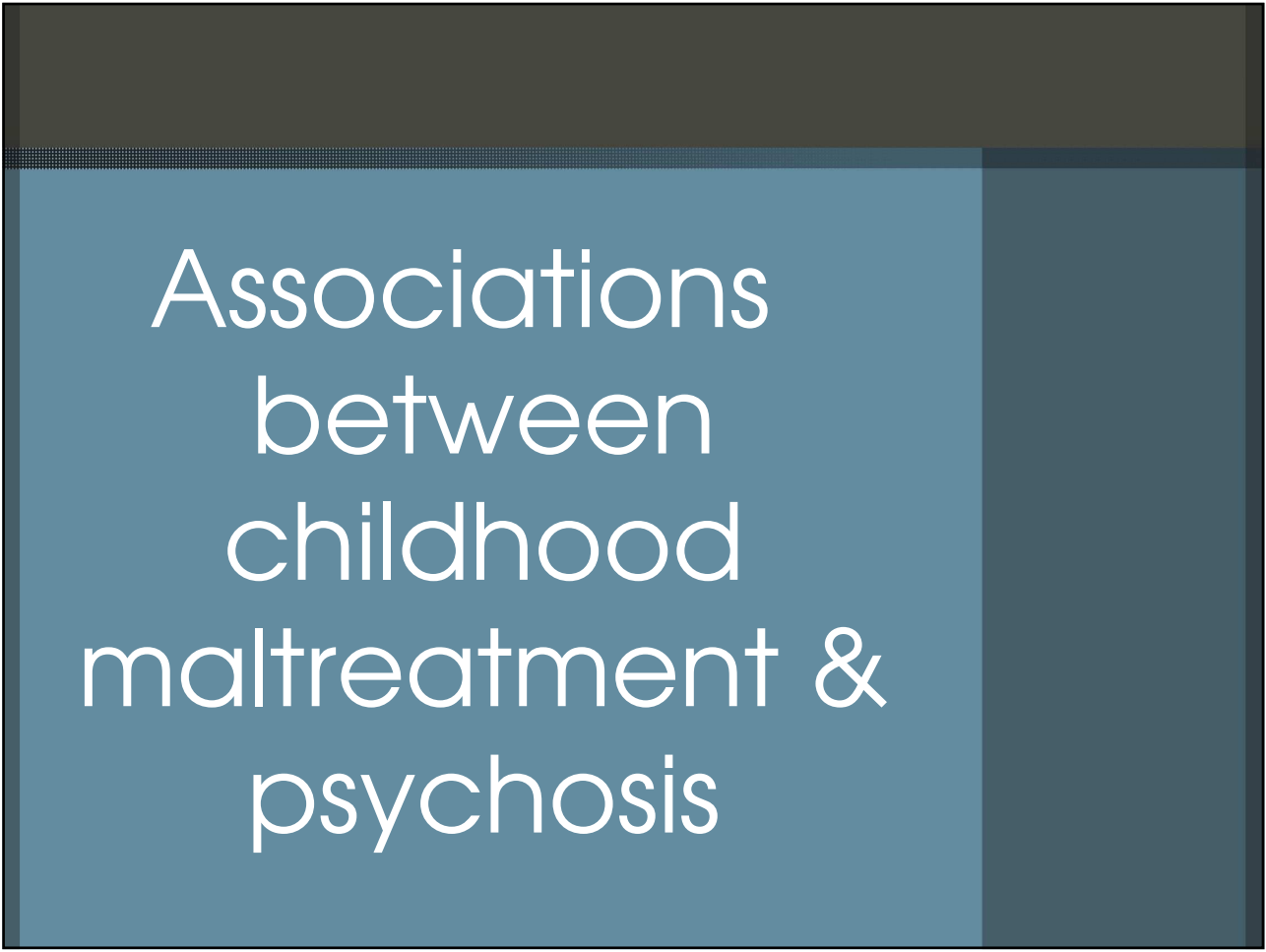
## ☺ Moderate test-retest reliability

- 7 years: sexual:  $k=0.590$ ,  $p < 0.01$ ; physical:  $k=0.634$ ,  $p < 0.01$ ; antipathy:  $k=0.492$ ,  $p < 0.01$ ; neglect:  $k=0.432$ ,  $p < 0.05$

## ☺ No measurable symptom impact

- no significant differences in abuse rates in terms of severity or depression & no clear overlap with symptom content



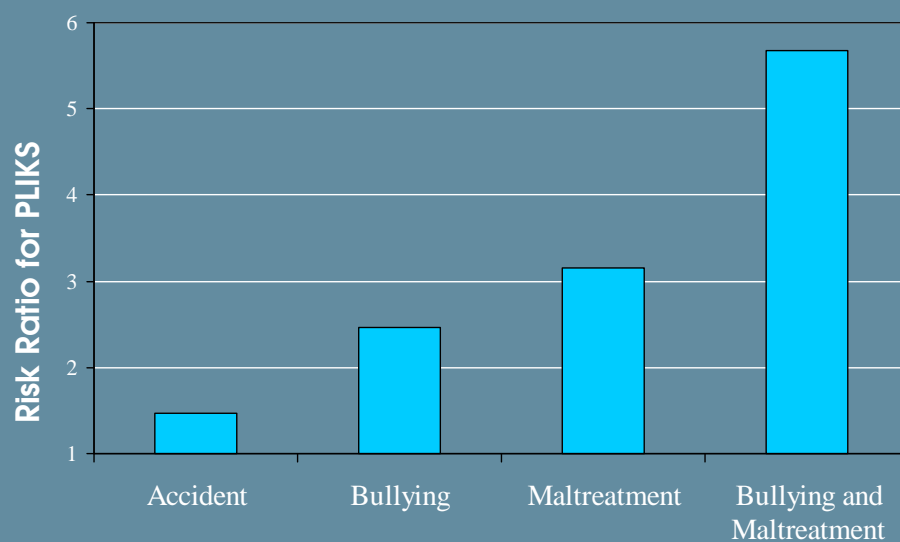


# Associations between childhood maltreatment & psychosis

# Psychosis-like symptoms



2,232 twins – victimisation assessed 5-12 yrs & PLIKS at 12 yrs

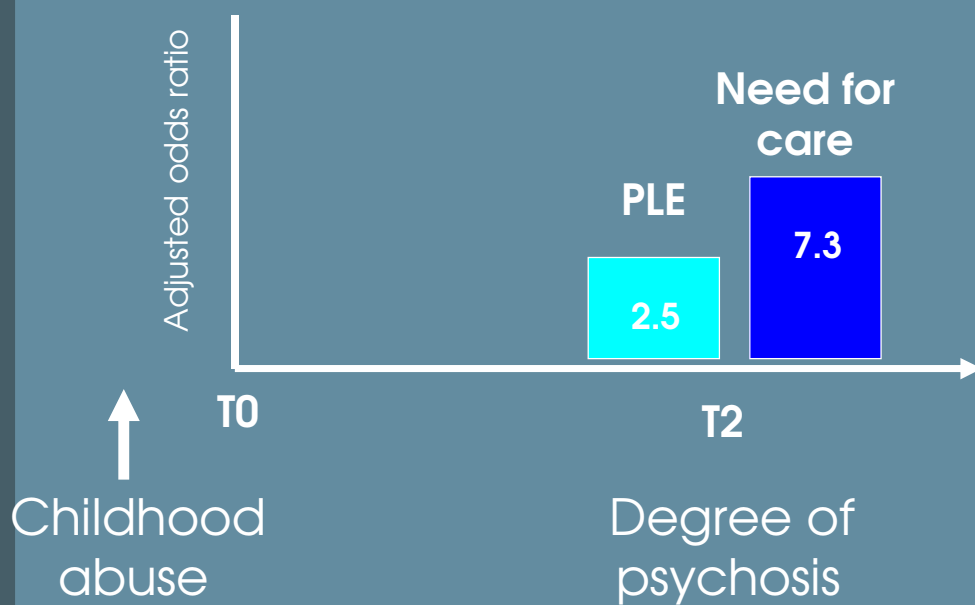


Arseneault, Cannon, Fisher et al. (2010) Am J Psychiatry



# Psychosis - need for care

4045 18-64 year-olds reported abuse prior to 16  
& psychotic symptoms 2 years later

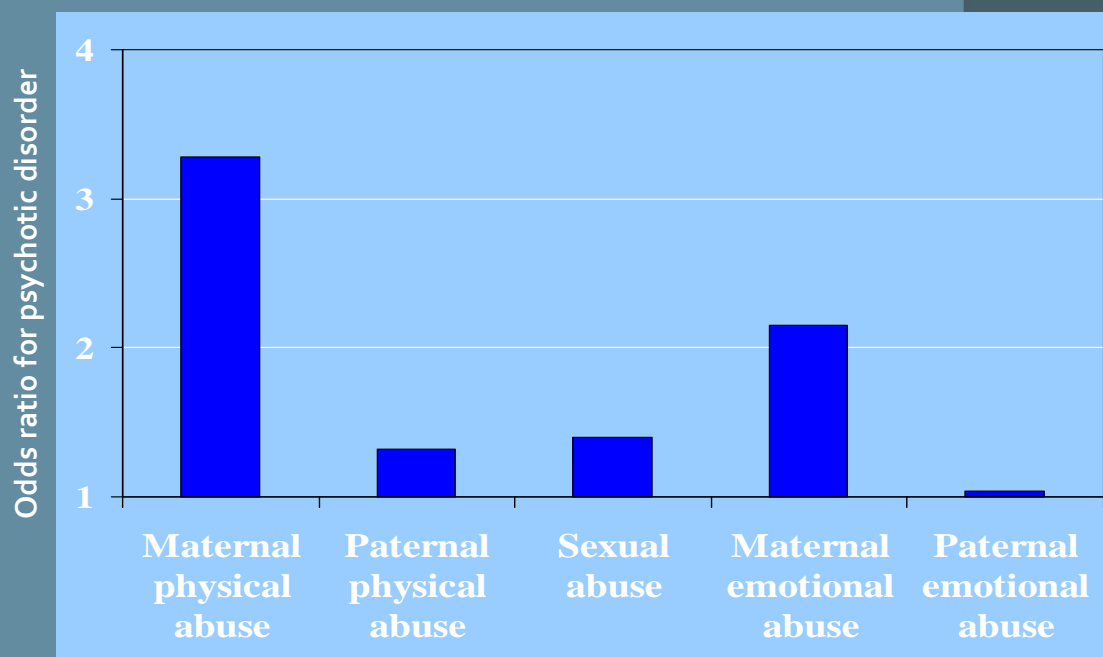


Janssen et al  
(2004) Acta  
Psychiatr  
Scand, 109,  
38-45

# Clinical disorder

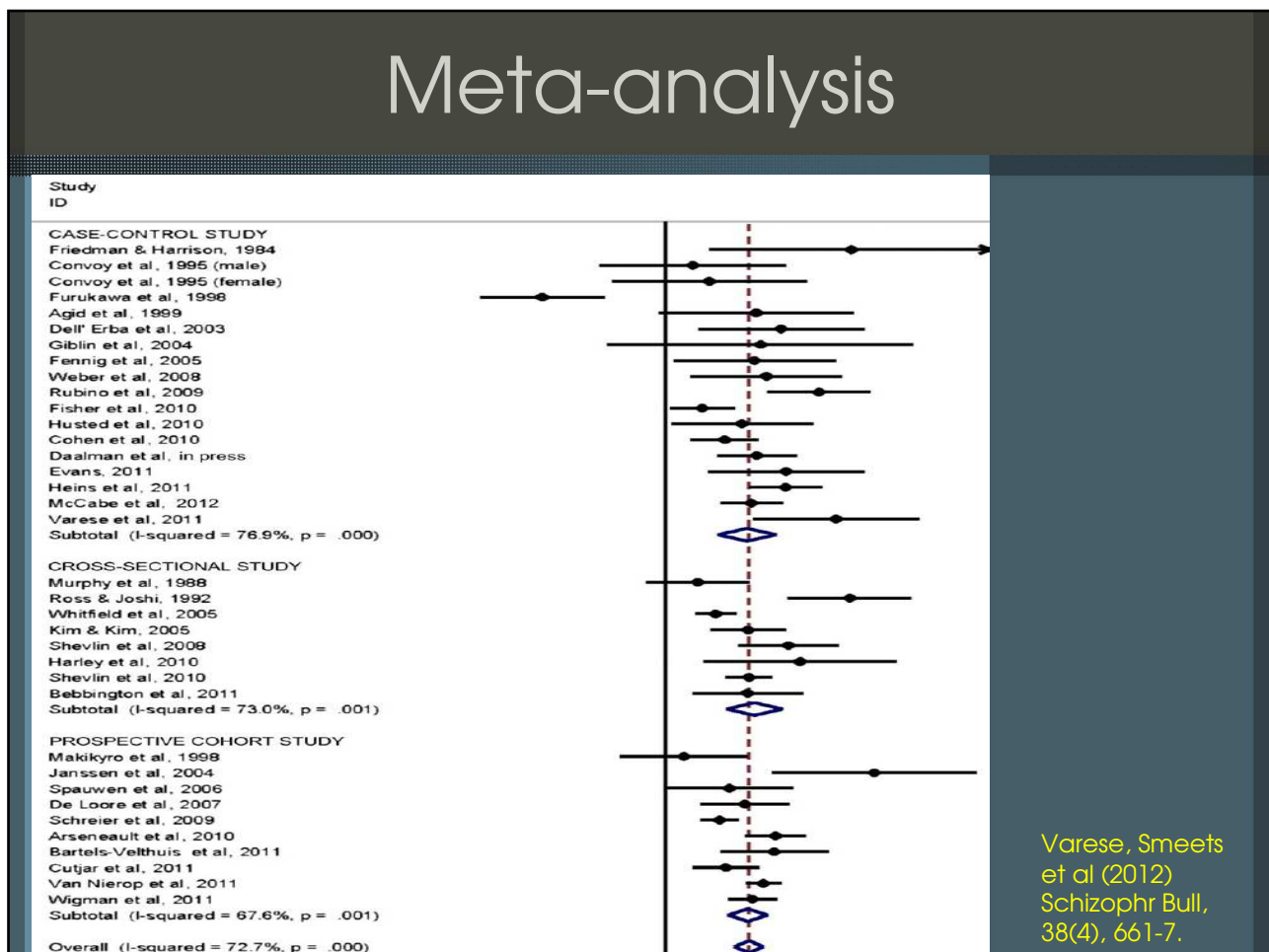
**ESOP**

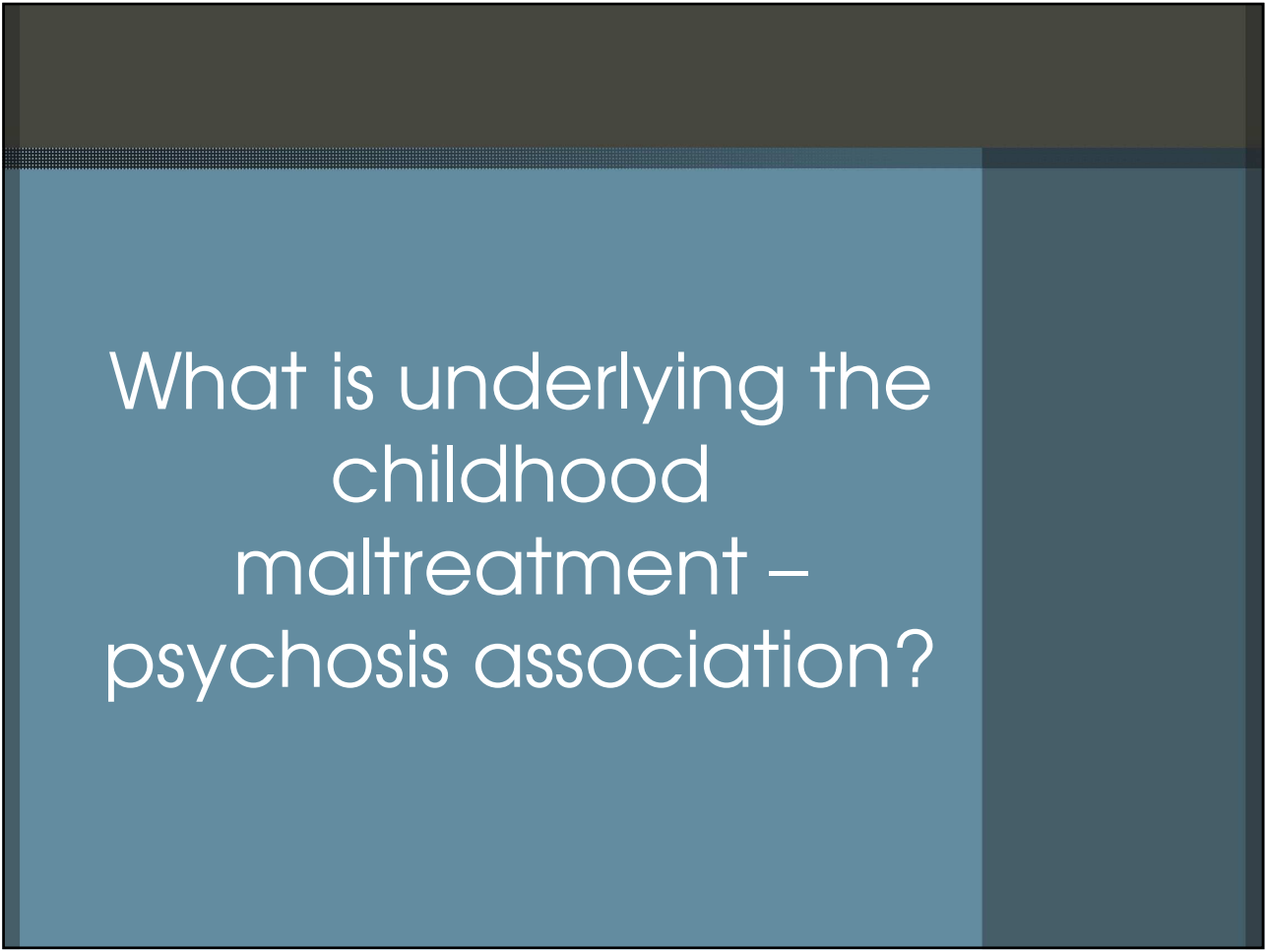
182 first-presentation psychosis cases & 246 screened controls



Fisher et al (2010) Psychol Med, 40, 1967-78

# Meta-analysis





What is underlying the  
childhood  
maltreatment –  
psychosis association?

# Mechanisms?

- Direct
  - Traumatic reaction, re-experiencing, dissociation
- Indirect
  - Biological/genetic
    - Dysregulation of HPA axis
    - Stunted brain development
    - Genetic sensitivity
  - Behavioural
    - Social isolation
    - Substance misuse
  - Psychological/cognitive
    - Hostile attributions/hypervigilance to threat
    - Negative beliefs about self/others
    - Externalising bias for interpersonal & own experiences
    - Cognitive impairment/difficulties
  - Re-victimisation
  - Other psychopathology
    - Depression
    - PTSD
    - Social anxiety
    - Anti-social behaviour

Garety et al (2007)  
Psychol Med  
37(10), 1377-91



Schäfer & Fisher (2011)  
Dialogues Clin  
Neurosci, 13 (3), 360-5.

Is it all due to  
concurrent  
disorders?





# Mental health problems

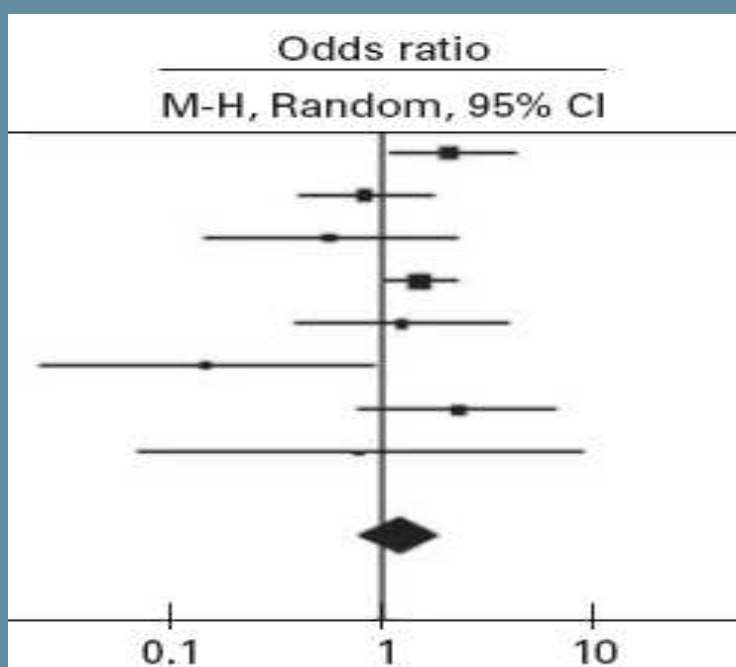
- Childhood trauma shown to be associated with a range of mental health difficulties:
  - ~2x greater risk for any SMI
  - Depression (Bifulco et al., 1991)
  - PTSD (Breslau et al., 1998)
  - Substance misuse (Kendler et al., 2000)
  - Suicidality (Christoffersen et al., 2003)
  - Personality disorder (Zanarini et al., 1997)

... no specificity?

Kessler et al.  
(2010) British  
Journal of  
Psychiatry,  
197, 378-385

# Not due to depression...

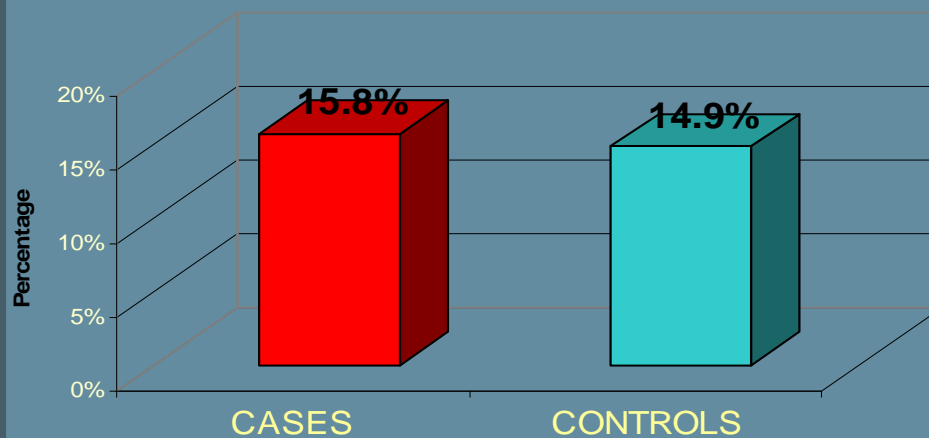
## Schizophrenia vs. affective psychosis



Matheson et  
al. (2012)  
Psychol Med,  
online only

## Not due to PTSD...

- 38 cases & 47 controls reporting PA &/or SA completed Impact of Events Scale (IES)
- Similar proportion had clinical disorder (Total IES >34)



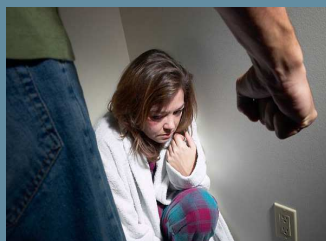
Schäfer et al.  
(2012) JNMD,  
199, 896-898

## Due to revictimisation?

- Individuals abused as children more likely to be victimised in adulthood (Desai et al., 2002)
- Adult trauma linked to psychosis (Bebbington et al., 1993)
- Few studies looked at whether adult trauma weakens association between CT & MH

# Yes, partially...

**OR=2.18**



**OR=4.57**



**45% medication**



80 first-presentation psychosis cases & 74 screened controls; questionnaires

## Mechanisms - behavioural

- Social withdrawal to avoid potential abuse (Kaufman & Cicchetti, 1989)
- Rejected by peers (Salzinger et al., 1993)
- Greater substance misuse (Zlotnick et al., 2004)

## Mechanisms - psychological

- Negative beliefs about the self & others (Gracie et al., 2007)
- Hostile attributions about the intentions of others (Dodge et al., 1986)
- Disrupted attachments (Cole & Putnam, 1992)

# Emotions & schematic beliefs

Emotional  
abuse

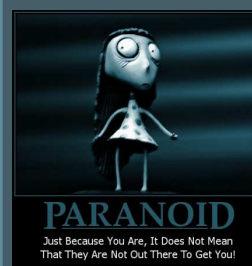
Neglect

Sexual  
abuse

Physical  
abuse



200 community  
volunteers



Fisher et al.  
(2012) Psychiatry  
Res, 196, 323-4



Are effects  
operating via  
affective &/or  
cognitive  
mechanisms?

# ALSPAC birth cohort

## Avon Longitudinal Study of Parents & Children

- **14,062** children born to residents of former Avon Health Authority between **1<sup>st</sup> April 1991 – 31<sup>st</sup> December 1992**
- Leakage sample of 548 live births added
- 3 triplets & 1 quadruplet pregnancy removed + twin with lowest birth weight from 201 pairs (to avoid non-independence)
- Postal questionnaires, face-to-face interviews/assessments with children 7+ yrs



## Assessment of trauma

- **Mother reports via postal questionnaire from birth – 6 years:**
  - Emotional/physical cruelty to mother from partner  
8/21/33/47/61/73 months
- **Bullying** – Bullying and Friendship Interview Schedule with child at 8 years



## Potential mediators

- **Locus of control** – child assessed at 8 with shortened version of the Nowicki-Strickland Internal-External scale – higher=external
- **Self esteem** - child assessed at 8 with shortened form of Harter's Self Perception Profile for Children – posted red/blue statements into post box labelled sort of/really true for me
- **Anxiety** – Mother completed: DAWBA interview when child aged 10 years
- **Depression** - Mother completed: Short Moods & Feelings Questionnaire when child aged 9 & 11 years

# Assessment of PLEs

- Children attended semi-structured interview at mean age of 12.9 years

Kappa = .72

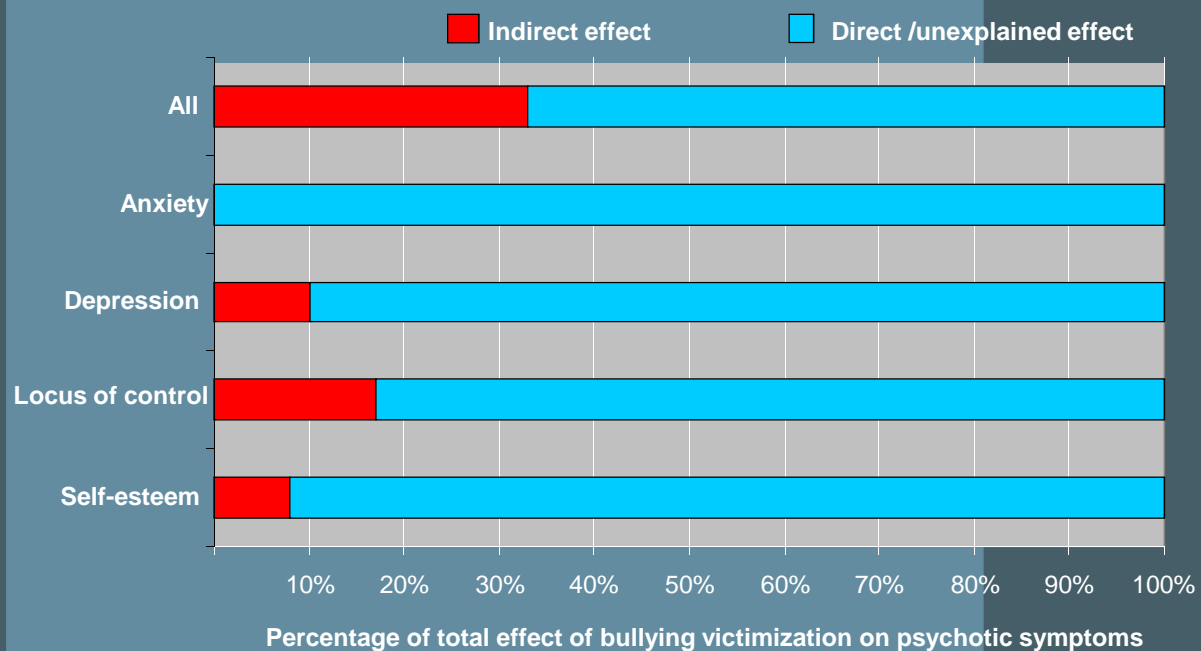
- 12 core questions for *past 6 months* occurrence of hallucinations, delusions & thought interference
- Qs derived from DISC-IV & SCAN & all items defined in accordance with SCAN glossary
- Cross-questioning & probing for presence/absence
- Ratings of none/suspected/**definite**
- Rated down if unclear & credible example required for definitely present



## Sample

- **6992**/14340 children alive at 1 year completed PLIKSi
  - 50.9% female, 3.6% non-White ethnicity
  - >female, >White, >married mothers, <family adversity, >IQ, >EA, >PA than non-completers
  - **11.3%** suspected/definite PLEs not attributable to sleep, fever or substance use
  - **4.7%** definite PLEs without attributions

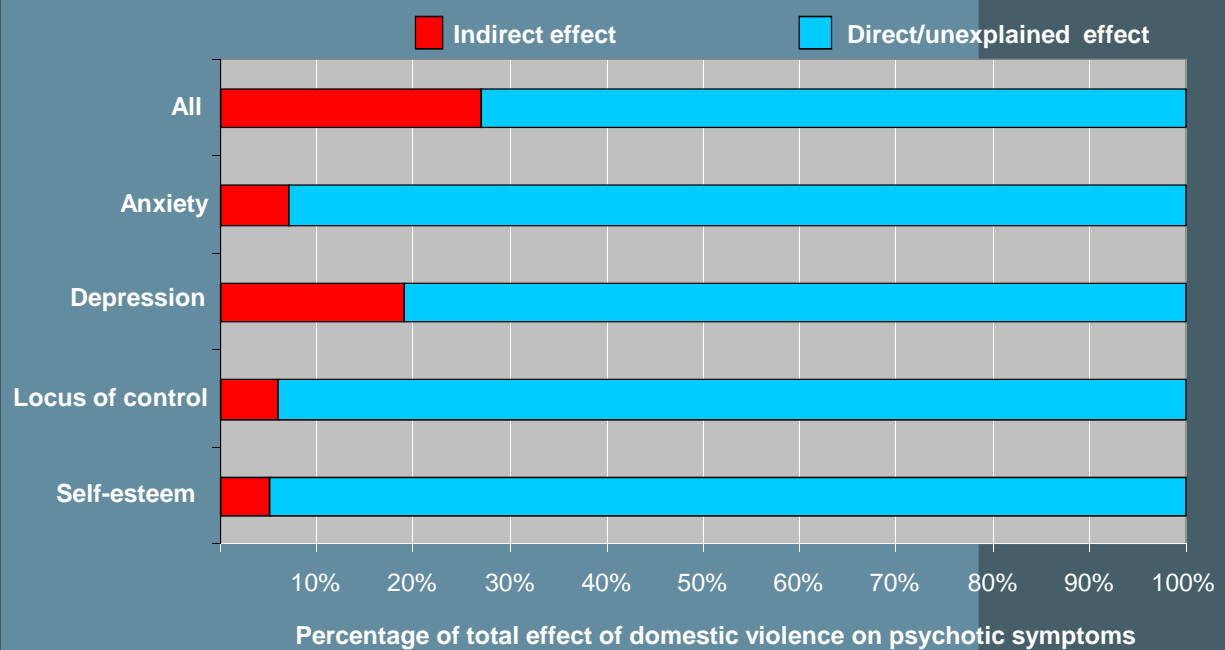
# Bullying & definite PLEs



**Bullying:** OR=1.65 (1.28-2.13)

Fisher et al (2012)  
Schizophr Bull,  
online only

# Domestic Violence & definite PLEs



Domestic Violence: OR=1.49 (1.17-1.90)

Fisher et al (2012)  
Schizophr Bull,  
online only





Is it all down to  
genes?

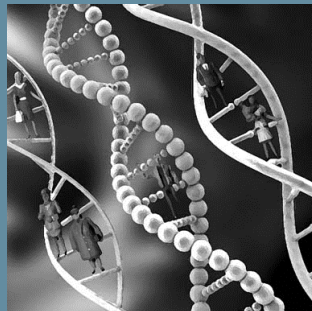
# Are results due to passive GE?



OR = 4.02



P: OR = 3.64  
C: OR = 23.42

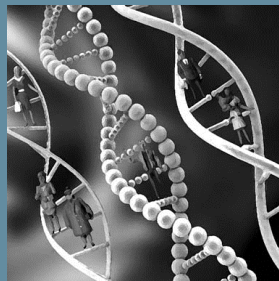


OR = 7.29

# Yes...but...

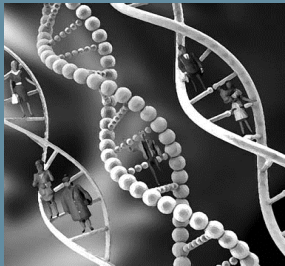


OR = 3.44

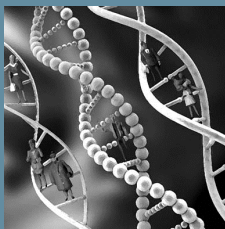
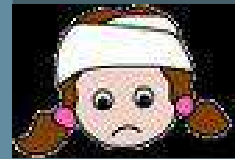


Important for exposure to abuse but doesn't fully account  
for how abuse leads to development of psychosis

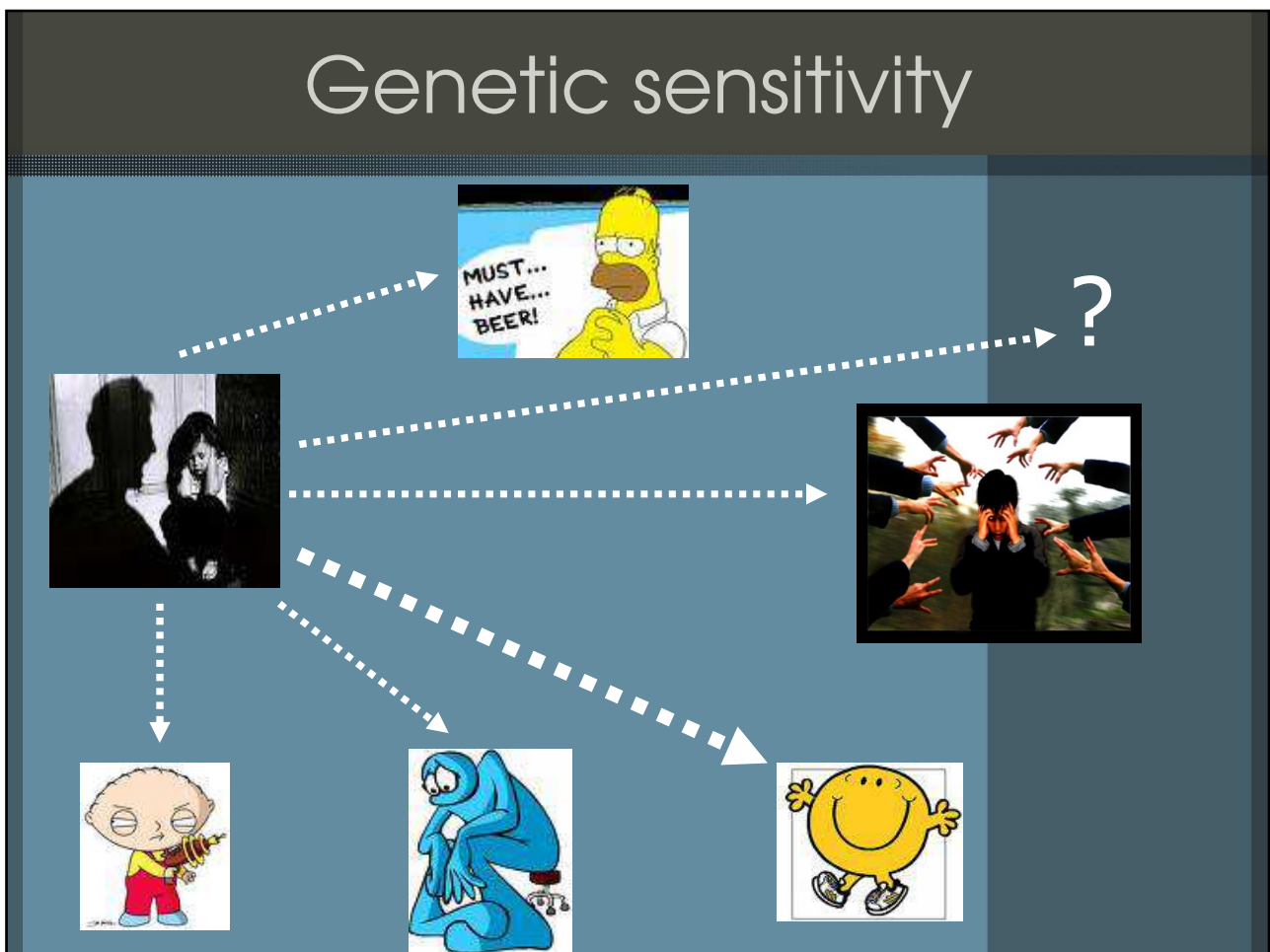
## Active GE example...



## Evocative GE example...



# Genetic sensitivity



No...

**No** parental psychosis x MPA

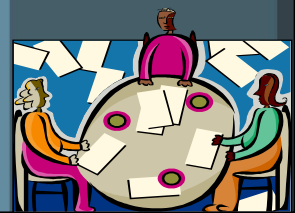
(Irttest  $X^2=1.31$ ,  $p=0.252$ )

**or** family mental illness x MPA

(Irttest  $X^2=0.48$ ,  $p=0.486$ )

# Clinical implications

- Clinicians should routinely enquire about childhood trauma (NHS confederation, 2008)
- Specific interventions for trauma – CBT...
- Take into account co-morbidity
- Problems with engagement, family involvement in care, ongoing abuse to other relatives, revictimisation and/or abusive to others, self-harm...





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[helen.2.fisher@kcl.ac.uk](mailto:helen.2.fisher@kcl.ac.uk)

THANK YOU for your  
attention, any  
questions?

