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#FutureMentalHealth

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Early childhood experience, its contribution to lifelong mental (and physical) health and how to re-orientate services to focus on childhood experience

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My starting po

Methadone maintenance in general practice: patients, workload, and outcomes

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Abstract

***Objective*—To assess recruitment to and workload associated with methadone maintenance clinics in general practice; to investigate the characteristics of patients and outcomes associated with treatment.**

***Design*—Study of case notes.**

***Setting*—Methadone maintenance clinics run jointly by general practitioners and drug counsellors in two practices in Glasgow.**

***Participants*—46 injecting drug users receiving methadone maintenance during an 18 month period, 31 of whom were recruited to clinic based methadone maintenance treatment and 15 of whom were already receiving methadone maintenance treatment from the general practitioners. Mean (SD) age of patients entering treatment was 29·6 (5·5) years; 29 were male. They had been injecting opiates for a mean 9·9 (5·1) years, and most had a concurrent history of benzodiazepine misuse. Average reported daily intake of heroin was approximately 0·75 g. Participants in treatment had high levels of preexisting morbidity, and most stated that they committed crime daily.**

***Results*—2232 patient weeks of treatment were studied. Mean duration of treatment during the study period was 50·7 (21·1) weeks and retention in treatment at 26 weeks was 83%. No evidence of illicit opiate use was obtained at an average of 78% of patients' consultations where methadone had been prescribed in the previous week; for opiate injection the corresponding figure was 86%.**

***Conclusions*—Providing methadone maintenance in general practice is feasible. Although costs are considerable, the reduction in drug use, especially of intravenous opiates, is encouraging. Attending clinics also allows this population, in which morbidity is considerable, to receive other health care.**

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BMJ 1994;309:641-4

Introduction

One to two per cent of the adult population of several British cities inject illicit drugs.[1 2] Well organised methadone maintenance treatment can reduce the intake of illicit opiates in many injecting drug users.[3-5]

For this major public health problem there is an apparently effective form of treatment, a group of patients who prefer to be treated in general practice,[6] and evidence of successful treatment of injecting drug users in general practice,[7 8] so it might seem surprising that most general practitioners either refuse to accept drug misusers onto their lists or adopt a strict non-prescribing policy.[9-12] Greenwood has cited reasons for the unpopularity of injecting drug users with general practitioners, including feeling deskilled due to lack of training; fear of diversion of prescribed drugs onto the illicit market; doubt about usefulness of interventions; and financial worries.[13] Kidd and Ralston's work suggests that those general practitioners who attempt substitute prescribing vary greatly in their approach[14]: much of this prescribing may be unhelpful, but information is limited.

Although there have been reports on the use of methadone for rapid detoxification of drug misusers in British general practice,[7 15] and stable maintenance patients have been treated in primary care in the United States,[16] this is the first report on methadone maintenance prescribing in clinics based in primary care in Britain.

Methods

CLINICS

Methadone maintenance clinics were established in two practices in Glasgow at the beginning of 1992. The clinics, initiated by the general practitioners and set up collaboratively with local drug agencies, were partially funded through NHS health promotion arrangements then in force. Both clinics were based on conjoint work between the general practitioners and drug counsellors. In clinic A, patients were initially seen weekly by both the general practitioners and the counsellor, but this was changed in mid-1992 to a weekly consultation with the counsellor alone; consultations with the doctor were approximately monthly. In clinic B, patients were seen fortnightly by both general practitioner and counsellor. Consultations with the counsellor were generally 15-30 minutes long; those with the doctor lasted 5-15 minutes.

Patients were accepted for methadone maintenance treatment if they stated that they had injected opiates for at least one year and if they had unsuccessfully attempted detoxification. Before being accepted into treatment, patients were interviewed by both the general practitioner and the drug counsellor, and were asked to sign a contract detailing expected standards of behaviour. Records were also kept of patients declaring opiate addiction who approached the practices for treatment during the study period.

In clinic A, doses of methadone were initially low (20-40 mg daily of the 1 mg/ml mixture); in clinic B doses were, in general, higher from the outset (40-100 mg daily). In the first few months of clinic A, patients were excluded from prescribing for 1-4 weeks if they admitted illicit use of opiates or benzodiazepines or evidence of use was obtained from urine testing or from the presence of needle tracks on physical examination. This policy of exclusion was abandoned after six months as a result of an audit showing several episodes of life threatening illness, increased injecting drug use, and criminality during the four week "bans." Average prescribed doses of methadone in clinic A were also increased (to 40-130 mg) after this audit. Urine was collected under supervision at each consultation with the counsellor except when pressure of time prevented urine collection (particularly if patients admitted illicit drug use) and in the first six months of

Adverse Childhood Experiences study: 17,000 Kaiser Permanente patients

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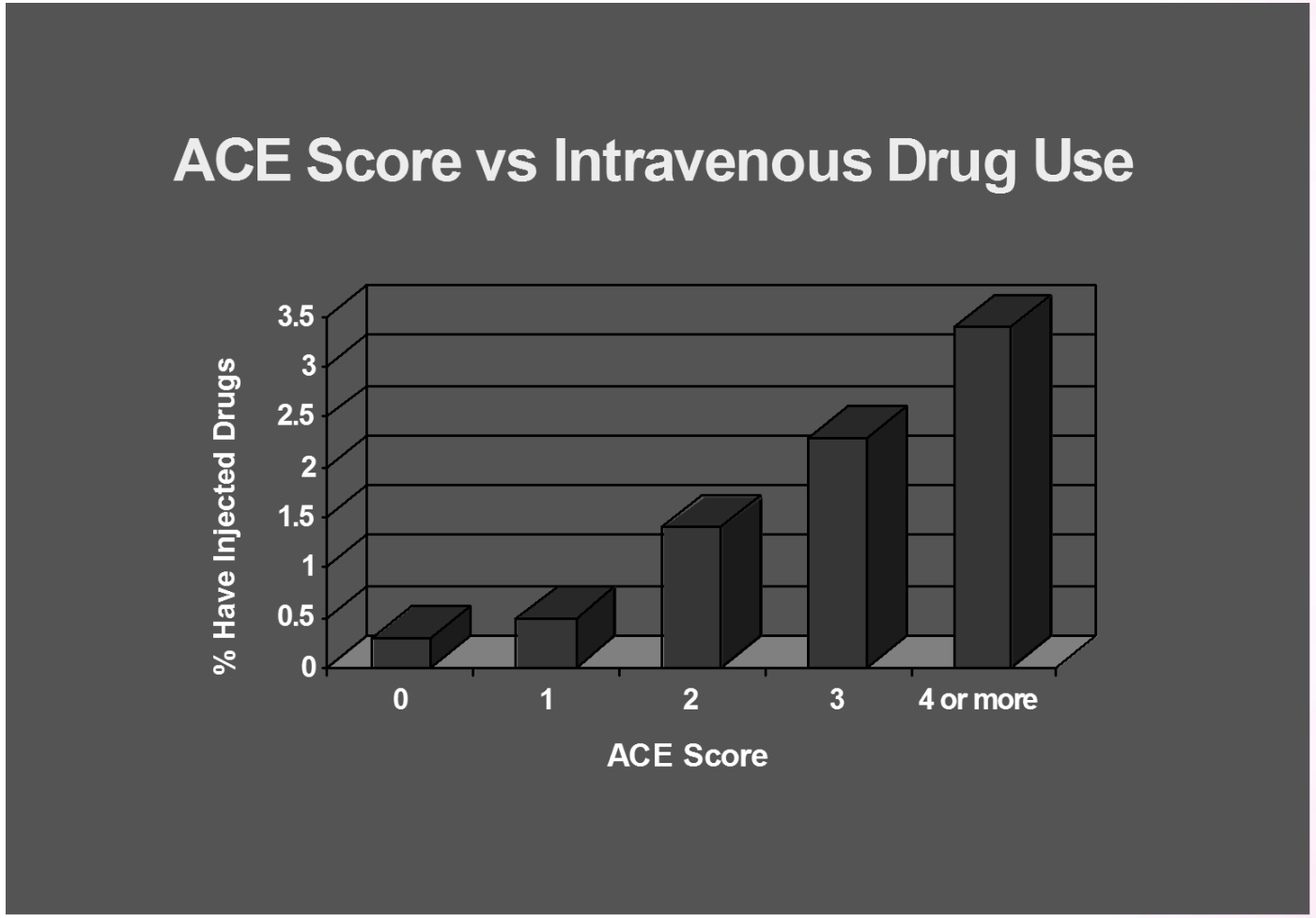
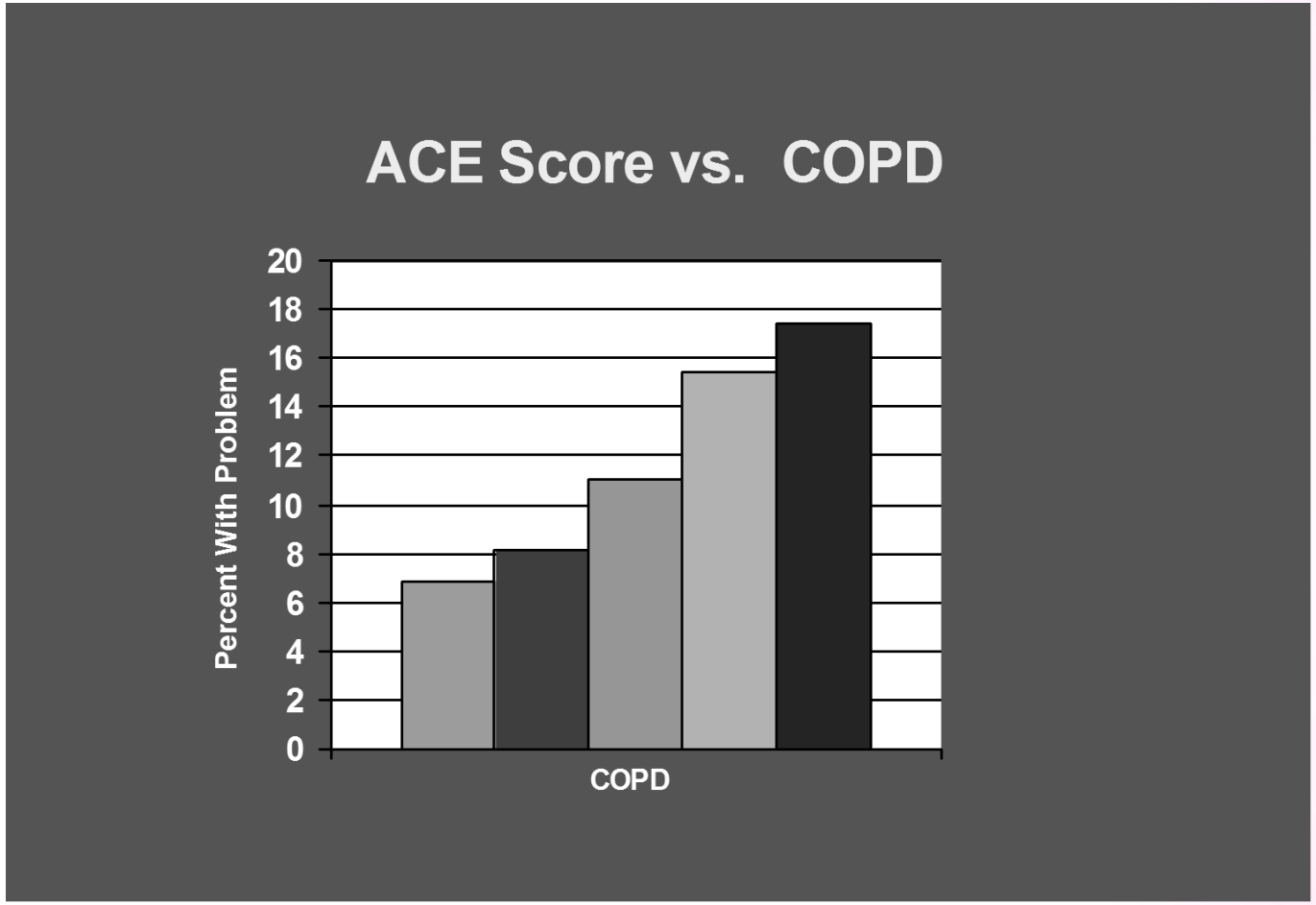
- Abuse
  - emotional – recurrent threats, humiliation (11%)
  - physical—beating, not spanking (28%)
  - contact sexual abuse (28% women, 16% men; 22% overall)
- Household dysfunction
  - mother treated violently (13%)
  - household member was alcoholic or drug user (27%)
  - household member was imprisoned (6%)
  - household member was chronically depressed, suicidal, mentally ill, or in psychiatric hospital (17%)
  - not raised by both biological parents (23%)
- Neglect
  - physical (10%)
  - emotional (15%)

ACE and problem drug use



Felitti & Anda in: R. Lanius & E. Vermetten eds. 2010

ACE and chronic lung disease



Felitti & Anda in: R. Lanius & E. Vermetten eds. 2010

Early behavioural/attention/communication problems predict ill health

- For example:
  - ADHD predicts problem substance use and smoking[†]
  - Language delay predicts mental health problems at age 7[a] and at age 34‡
  - 1958 UK birth cohort: children rated by their teachers as being in the highest scoring quartile for emotional and behavioural problems had about double the mortality by age 46 years of children scoring in the lowest quartile¶
  - "A segment comprising 22% of the cohort accounted for 36% of the cohort's injury insurance claims; 40% of excess obese kilograms; 54% of cigarettes smoked; 57% of hospital nights; 66% of welfare benefits; 77% of fatherless child-rearing; 78% of prescription fills; and 81% of criminal convictions. Childhood risks, including poor brain health at three years of age, predicted this segment with large effect sizes"*

[†]Wilens et al JAACAP 2011,50: 543-553.
[a]Miniscalco et al. Dev Med Child Neurol 2006, **48:** 361-366. ‡Law et al. J Speech Lang Hearing Res 2009, **52:** 1401-1416.
¶Jokela et al. JAACAP 2009, 48:19-24. *Caspi et al Nature Human Behav. 2016 1: 0005

Parenting and ill health

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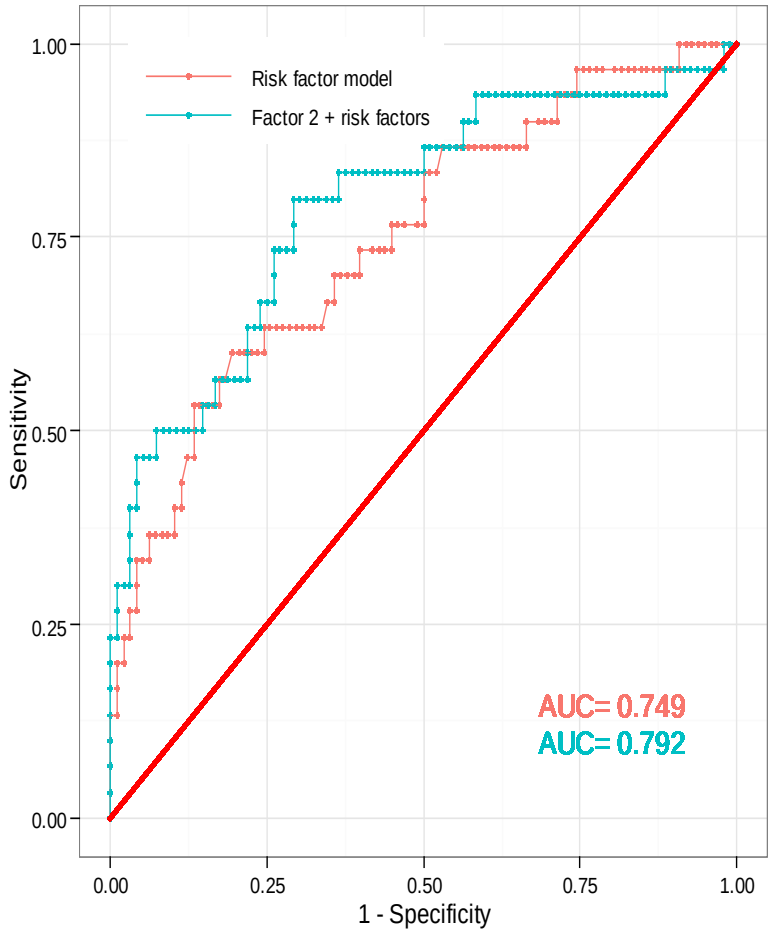
- Positive parenting behaviours towards 1-year-old children are strongly associated with a reduced risk of disruptive behaviour disorders at age 7*
- Multiple studies demonstrate the association between harsh parenting behaviours and conduct disorder†
- We can predict which 1-year-olds will go on to get a psychiatric diagnosis at age 7 pretty well:

Figure 2 ROC curve for DBD diagnoses predicted by factor 2 , infant gender, maternal age, maternal educational level, prenatal anxiety, whether the infant was breast fed, prenatal alcohol and smoking consumption and whether the father lives in the household.



*Puckering et al, BMC Pediatrics 2014, 14: 223

†Wilson et al JECH 2013, 67:76-80 etc

Strengths and Difficulties Questionnaire in Glasgow

30 months

- Completed by parents
- Administered by Health Visitors
- Language data also collected†

Pre-School

- Completed by nursery staff*

P3

- Completed by class teachers

P6

- Completed by children (self-complete)

†Sim et al 2013; 13(1):206
*White et al. Educ. Res. 2013, 55: 87-98

The Strengths and Difficulties Questionnaire

www.sdqinfo.org

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Emotional Symptoms

Conduct problems

Hyperactivity/inattention

Peer relationship problems

Pro-social behaviours

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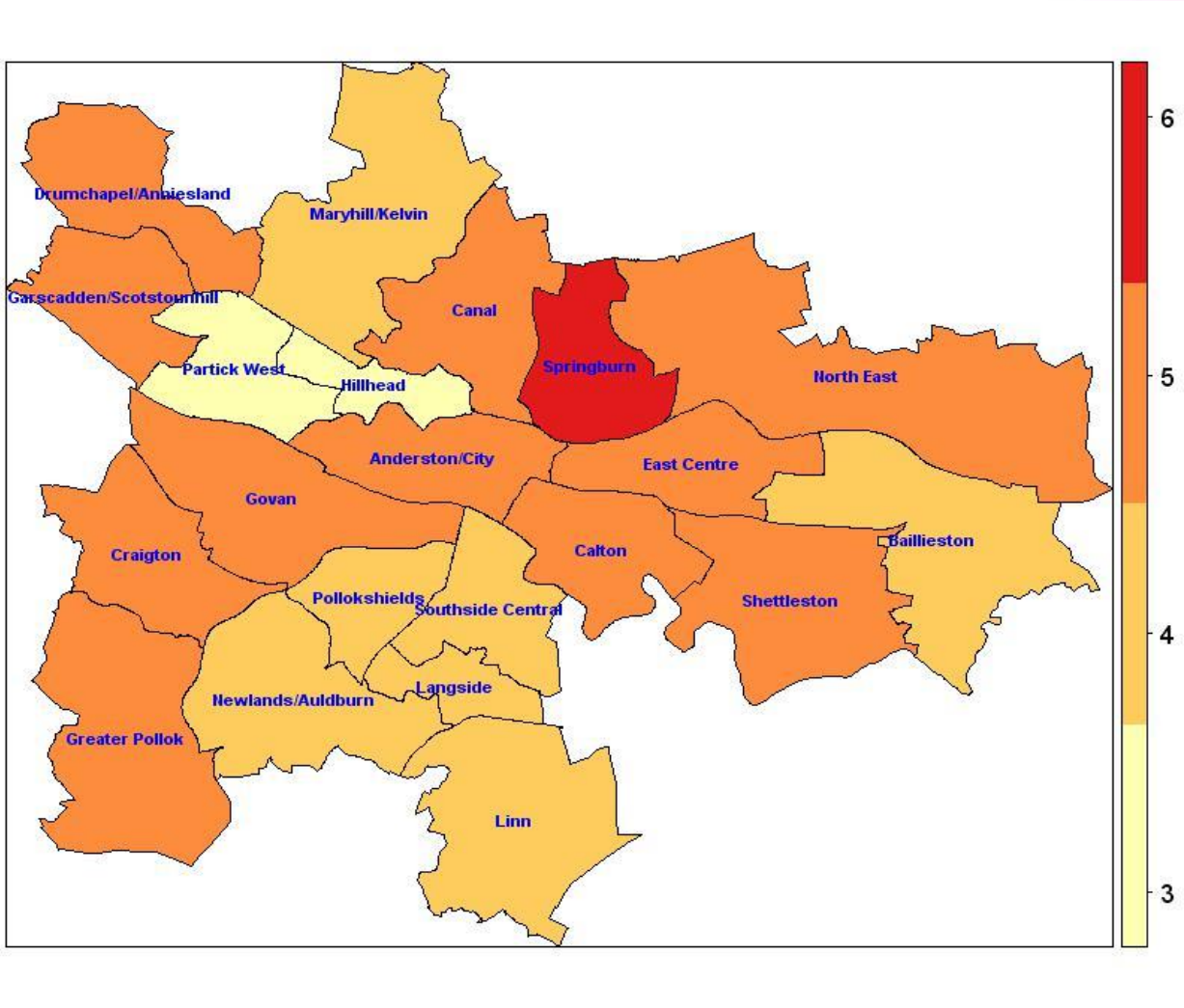
Mapping child mental health in Glasgow

Mental health at age 4-5 years in Glasgow:

- Data from 2010-12
- About 10,500 children
- SDQ scoring by nursery/EYE staff
- Linear mixed effects modelling
- Scores higher among boys, in looked-after children and in areas of higher deprivation

Pre-school total difficulties 2010-12 – median uncorrected scores



Barry et al, Child: Care, Health and Development, 2015, 41(6): 853–864
White et al. Educational Research 2013, 55: 87-98

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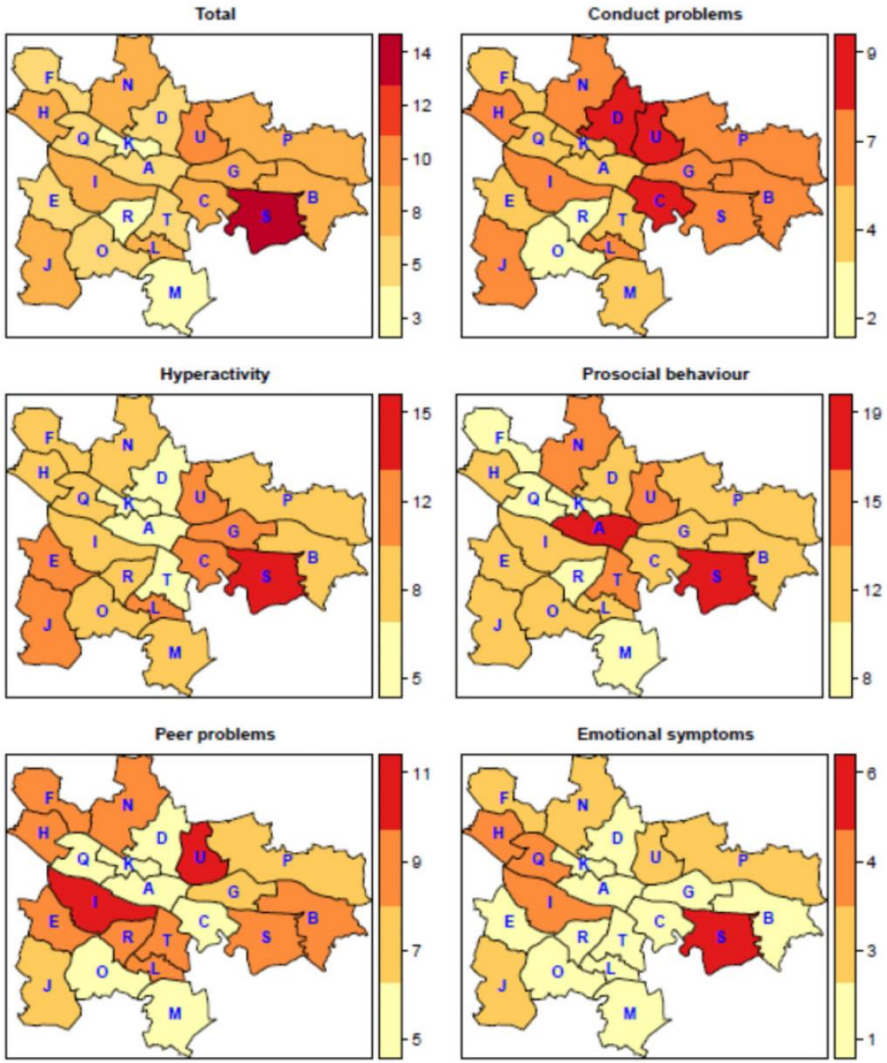
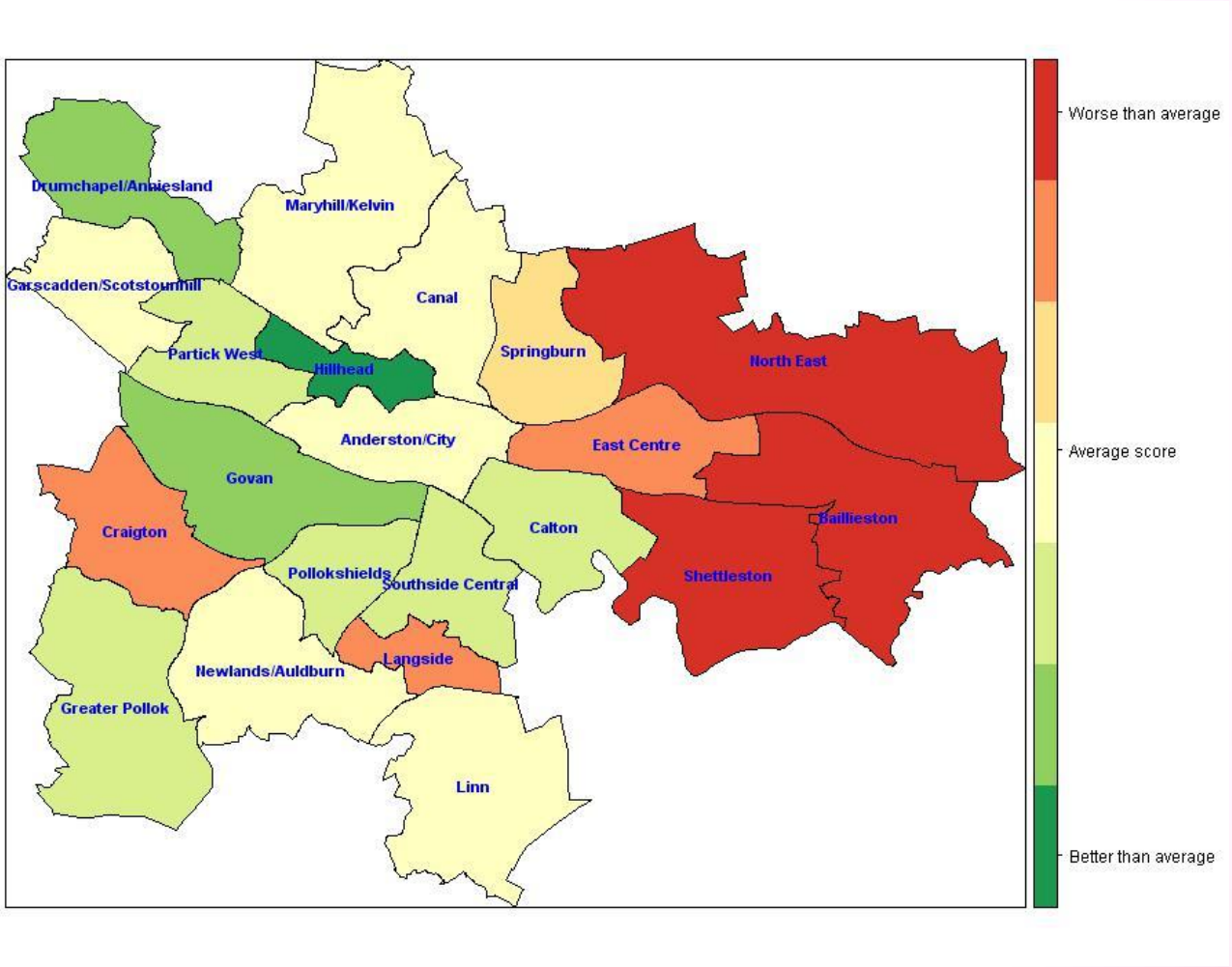
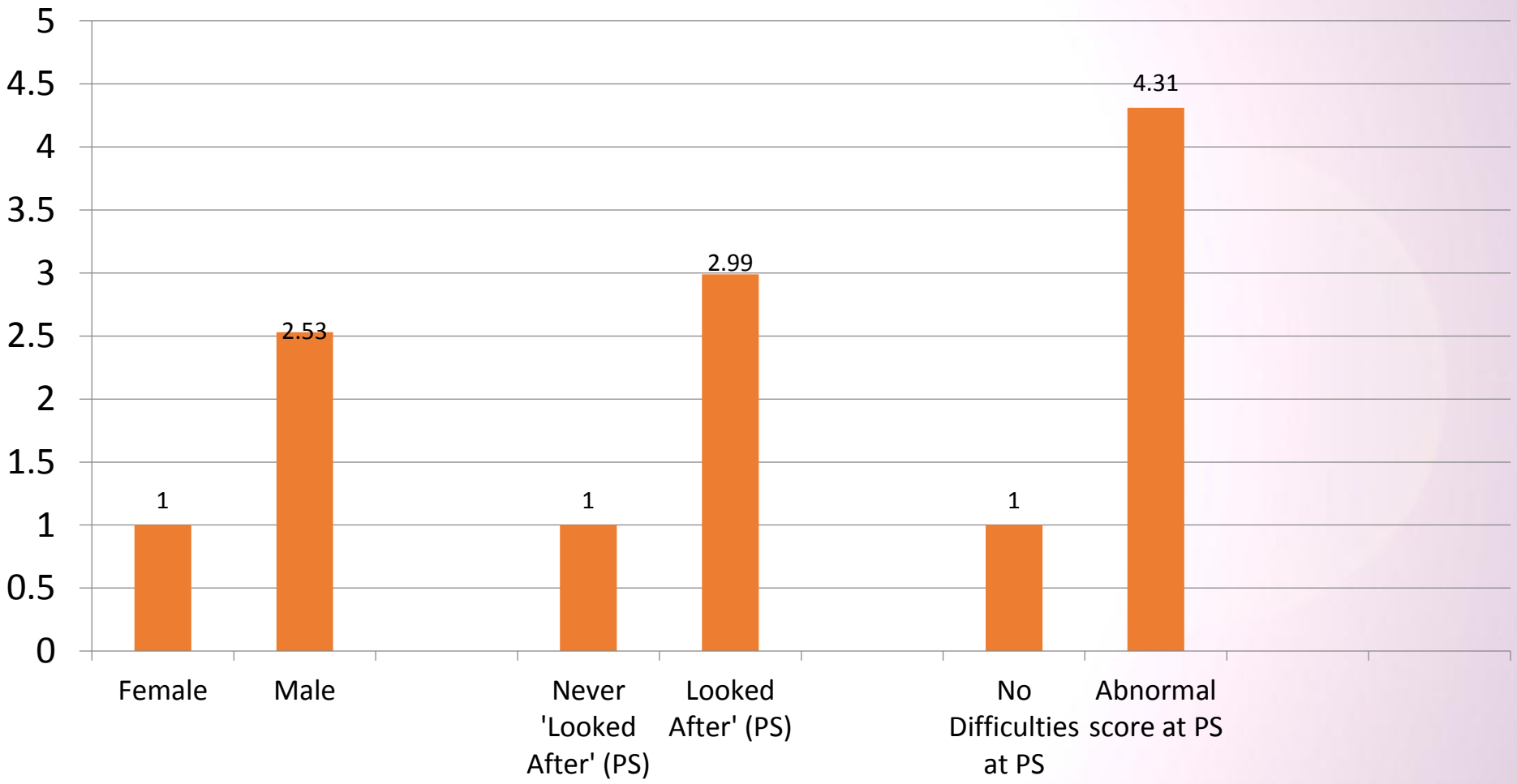
Percentage ‘abnormal’ range SDQ scores



Pre-school total difficulties 2010-12. Scores adjusted for nursery, deprivation etc



What predicts high SDQ scores at age 7?



Early advantage predicts resilience…

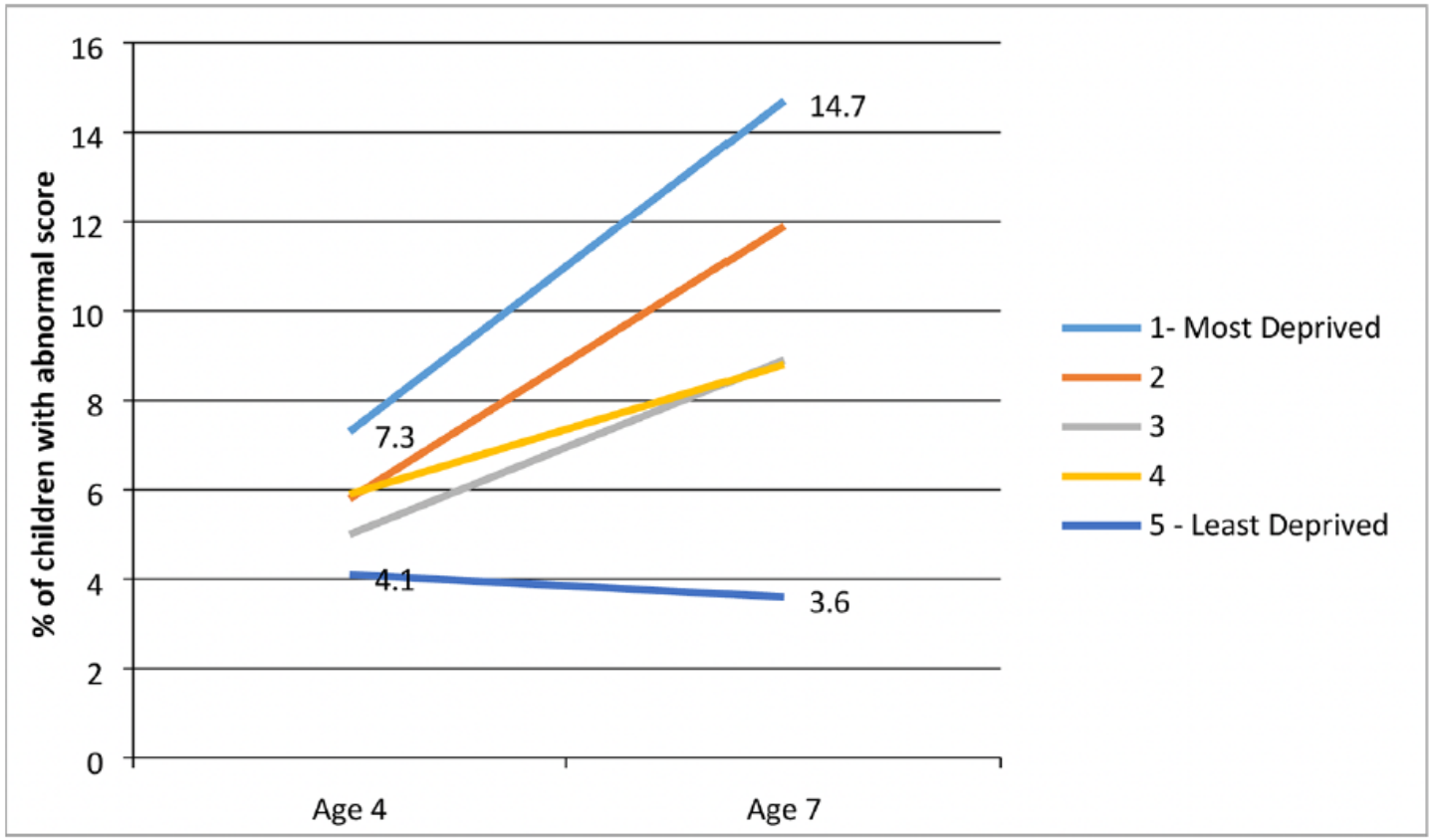


Figure 1 Proportion of children in the 'abnormal' total difficulties group by age and level of area deprivation (base: 3078).

Marryat L, *et al*. *J Epidemiol Community Health* 2017;**0**:1–7. doi:10.1136/jech-2017-208995

Conclusions

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Long-term physical and mental ill health is predicted by:

- Early neurodevelopmental problems
- Early adverse experiences

… and we can predict pretty well very early in life which children will have long-term ill health

Environmental factors mediate the relationship between early adversity and long-term outcomes:

- Positive parenting
- Neighbourhoods
- Schools

- Interactions between these early predictors and environmental factors are complex, important and worthy of further study!

What can we do in adult mental health services?

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- Be alert to the childhood origins of poor mental health
  - Adverse childhood experiences
  - Neurodevelopmental problems/learning difficulties
  - Attachment and parenting problems
- Be alert to the children in the families we work with, and how their experience can be improved
- Think about child and adult services can work together more effectively

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Thank you!

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