

Personality Disorder & Population Health

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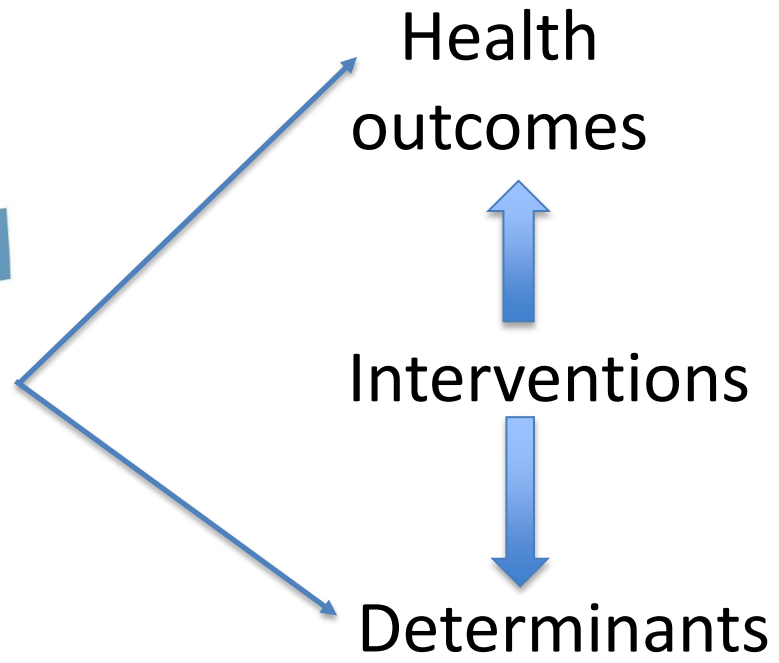


University of
BRISTOL

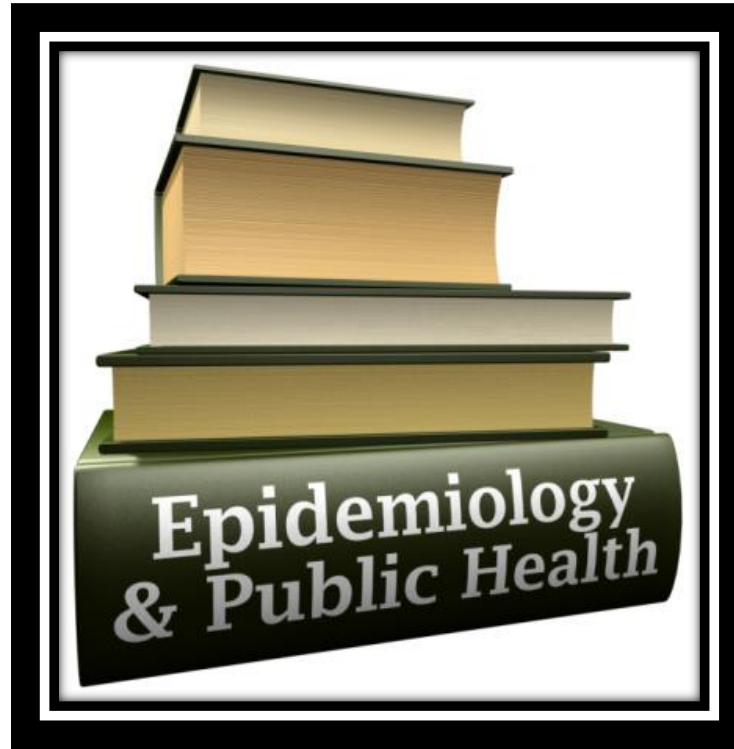
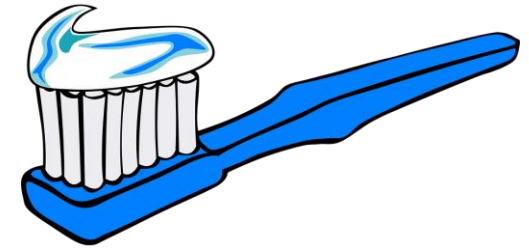
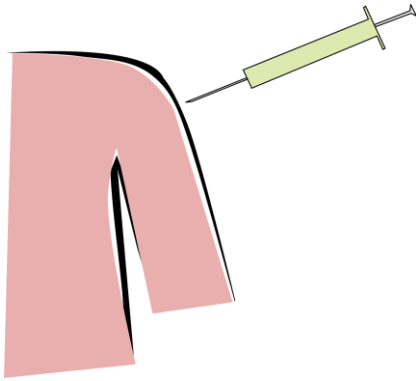
Plan for talk

- The importance of epidemiology and particular challenges for our field
- 3 recent themes on the impact of personality disorders
 - on general health and life expectancy
 - on future psychosocial functioning
 - on the treatment of common mental disorder
- Personality disorder is key to understanding population mental health





“The health outcomes of a group of individuals, including the distribution of such outcomes within the group”



The importance of epidemiology

CASE DEFINITION

An instance of a disease, injury, or problem.
(OED)

'20,000 cases of influenza'

Psychiatric diagnosis: impersonal, imperfect and important

Nick Craddock and Laurence Mynors-Wallis



Summary

Psychiatric diagnosis is in the spotlight following the recent publication of DSM-5. In this article we consider both the benefits and limitations of diagnosis in psychiatry. The use of internationally recognised diagnoses, although insufficient alone, is part of a psychiatrist's professional

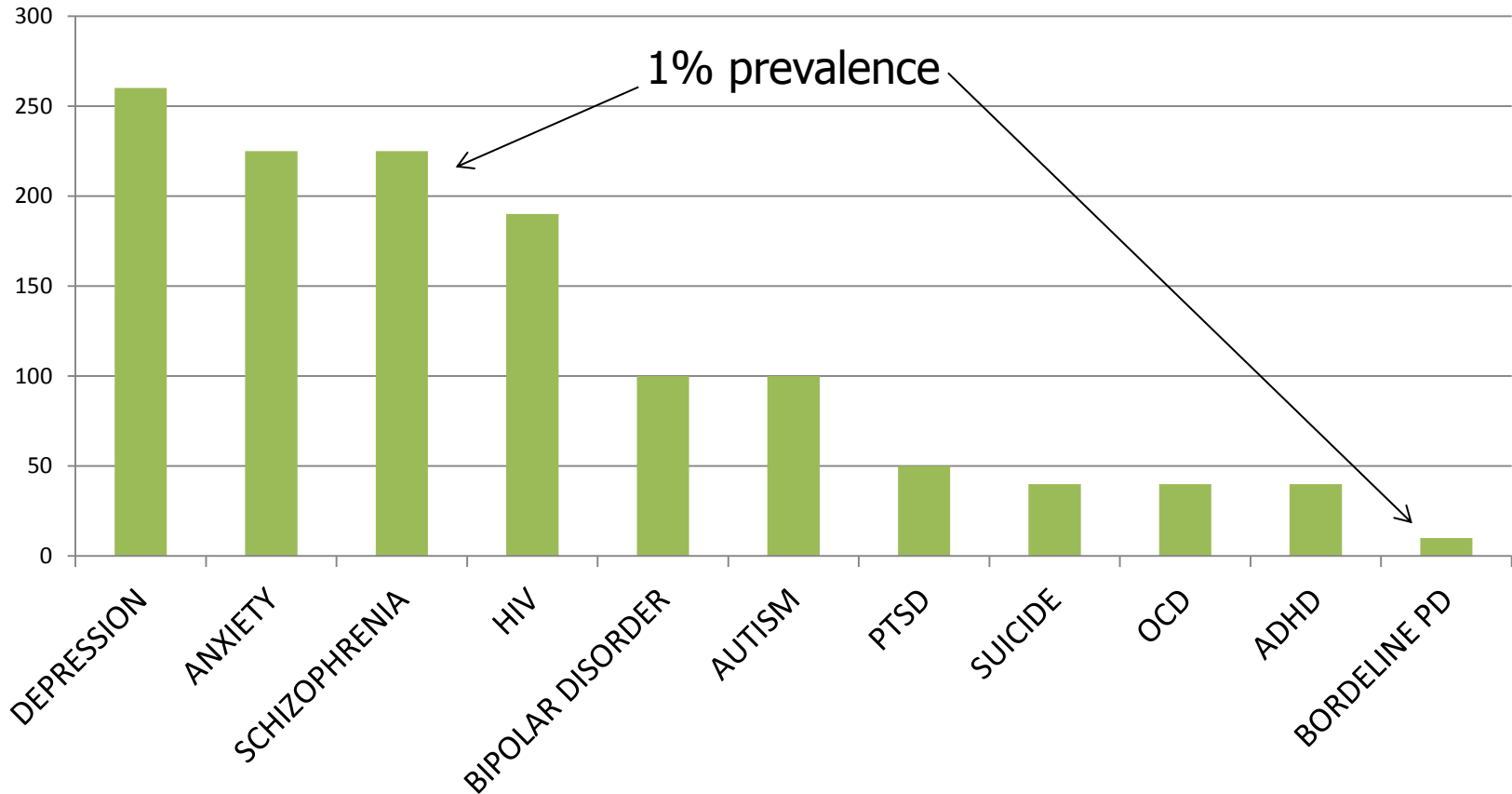
responsibility to provide high-quality, evidence-based care for patients.

Declaration of interest

None.

- Guides clinical decision making
- Provides reassurance that someone's problems are not inexplicable and that they are not alone
- Helps communicate information
- Diagnoses can help to mobilise resources...

NIMH funding 2009-2013



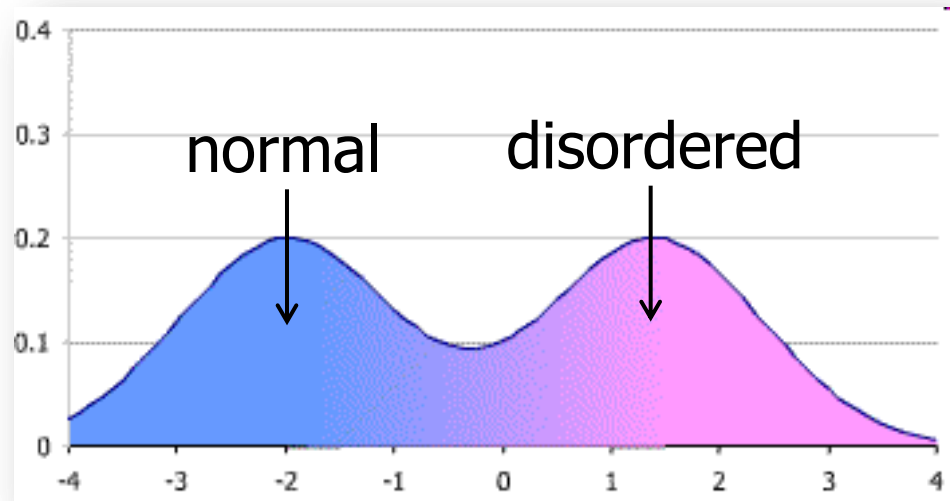
Bars represent pooled estimates in \$millions /year over 2009-2013

ADAPTED FROM: INSEL: "The anatomy of NIMH funding":

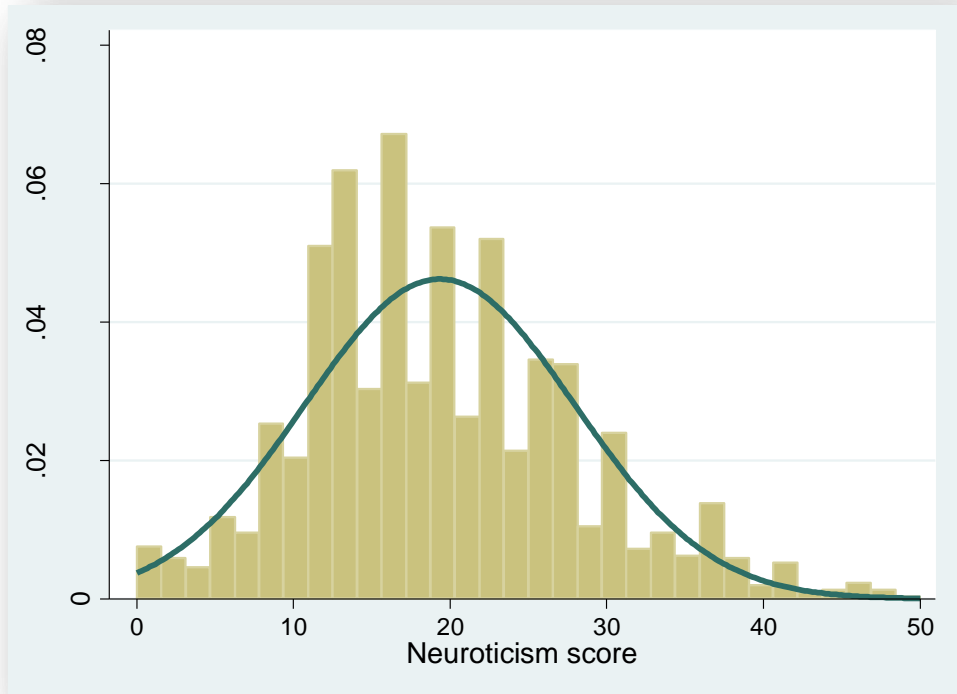
<http://www.nimh.nih.gov/funding/funding-strategy-for-research-grants/the-anatomy-of-nimh-funding.shtml>

Challenge 1) The science doesn't support categories

What you'd expect..



The reality..



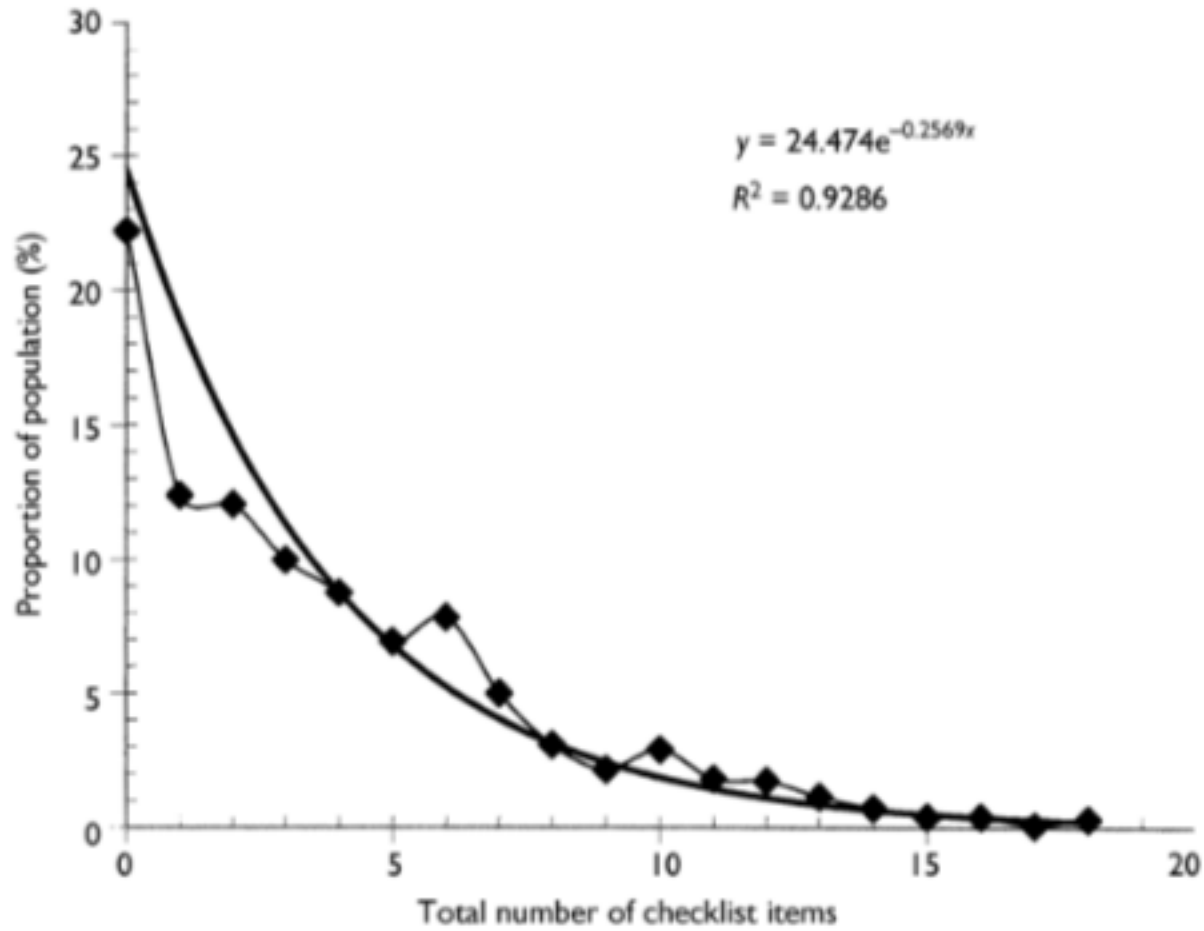


Fig. I Percentage of the study population v. total number of Paranoia Checklist items endorsed, with fitted exponential curve.

Freeman et al, 2005

Personality Disorder - a pejorative label

Personality disorder is a concept like body odour... affected by constitution and environment, a source of distress to both sufferer and society, yet imbued with ideas of degeneracy so that its possession is also a personal criticism' .

Tyrer & Ferguson (1988)

Challenge 2) Our terminology

The need to settle on a term which

- is scientifically robust
- is applied appropriately
- does not obfuscate ('complex', 'challenging' etc)
- helps us to develop and test new treatments
- helps mobilise resources to help people

Challenge 3) Defining 'personality' in a busy setting...





Rapid and efficient screening....

BRITISH JOURNAL OF PSYCHIATRY (2003), 183, 228-232

Standardised Assessment of Personality – Abbreviated Scale (SAPAS): preliminary validation of a brief screen for personality disorder

PAUL MORAN, MORVEN LEESE, TENNYSON LEE, PAUL WALTERS,
GRAHAM THORNICROFT and ANTHONY MANN

Background There is a need for a brief and simple screen for personality disorders that can be used in routine psychiatric assessments.

Aims To test the concurrent validity and test-retest reliability of a brief screen for personality disorder.

Method Sixty psychiatric patients were administered a brief screening interview for personality disorder. On the same day, they were interviewed with an established assessment for DSM-IV personality disorder. Three weeks later, the brief screening interview was repeated in order to examine test-retest reliability.

Results A score of 3 on the screening interview correctly identified the presence of DSM-IV personality disorder in 90% of participants. The sensitivity and specificity were 0.94 and 0.85 respectively.

Conclusions The study provides preliminary evidence of the usefulness of

Personality disorder can significantly affect the management and outcome of associated mental illness (Patience *et al*, 1995; Yonkers *et al*, 2000). An assessment of personality status should therefore ideally form part of the routine assessments conducted by psychiatric teams (Moran *et al*, 2003; Tyrer & Simmonds, 2003). However, too often the assessment of personality disorder remains one of clinical judgement. Unfortunately, clinical diagnoses are unreliable (Mellsop *et al*, 1982), and although reliability can be improved by the use of standardised assessments, these assessments are lengthy and require training. Self-report questionnaires are useful research tools, but they can be tiring for patients because they require the ability to concentrate on written questions. A brief structured interview with the patient would overcome some of these problems provided it could be easily incorporated into a standard psychiatric interview. This paper reports on the preliminary validation of a brief structured interview for personality disorders that is feasible for use in routine clinical assessment.

METHOD

day hospital attendance, and in-patients were interviewed on the hospital ward. The sample consisted of 34 women and 26 men, with a mean age of 43 years (s.d.=15.9). The clinical diagnoses of the sample were as follows: affective disorder ($n=25$), anxiety disorder ($n=11$), eating disorder ($n=9$), schizophrenia ($n=9$) and drug or alcohol dependence ($n=6$).

Measures

Screening questionnaire

The screening questionnaire consisted of eight dichotomously rated items taken from the opening section of an informant-based interview, the Standardised Assessment of Personality (SAP) (Mann *et al*, 1981; Pilgrim & Mann, 1990; Pilgrim *et al*, 1993). The SAP allows an ICD-10 or DSM-IV diagnosis of personality disorder to be made (World Health Organization, 1992; American Psychiatric Association, 1994). Each of the eight questions from the opening section of the SAP corresponds to a descriptive statement about the person and can be scored 0 or 1 (see Appendix). The scores on the eight items can be added together to produce a total score between 0 and 8.

An exploratory analysis of the SAP ratings of a sample of 303 primary care attenders (Moran *et al*, 2001; Rendu *et al*, 2002) showed that the total score on these eight official probe items satisfactorily predicted the final SAP diagnosis of personality disorder obtained after more detailed questioning of the informant: area under the curve (AUC)=0.79, 95% CI 0.74-0.84. The performance of these eight items suggested that they might also act as a patient-based screen for a diagnosis of

Relative performance of PD screens

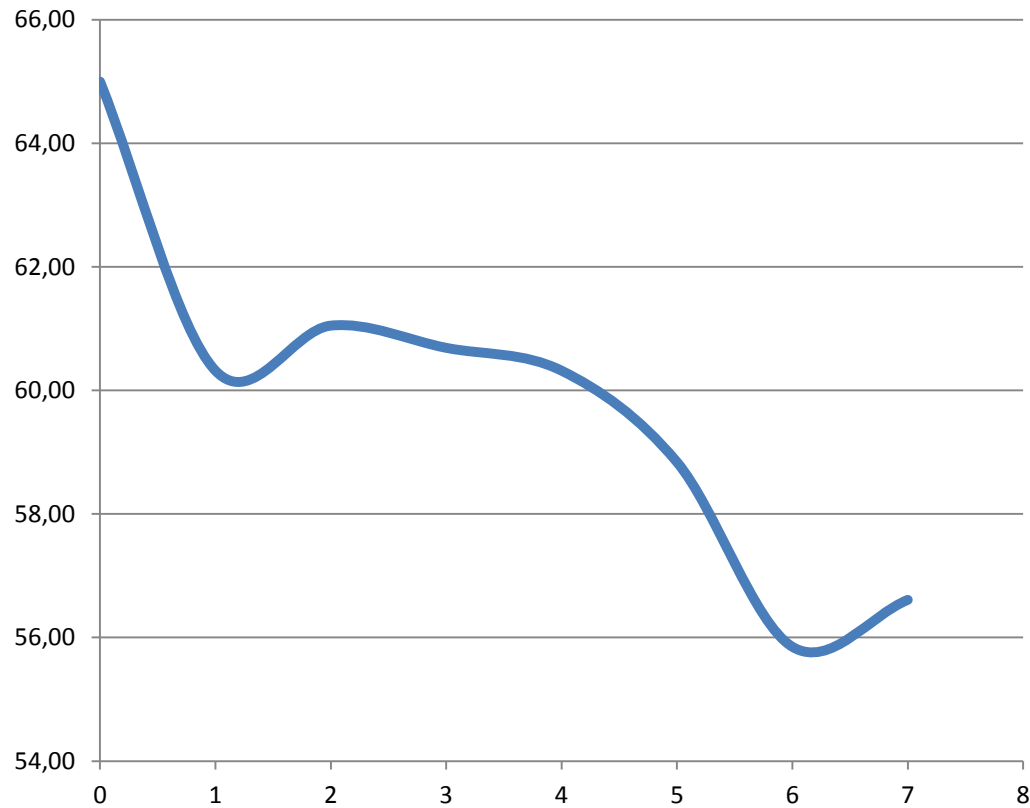
	SAPAS	IPDS	S-SCID	PAS-Q	NEO-FFI
Sensitivity %	83	77	78	80	63
Specificity %	80	85	78	82	35
PPV %	80	83	78	81	48
Correctly classified %	81	81	78	80	49
α coefficient	0.45	0.64	0.67	0.35	n/a
Test-retest reliability	0.89	0.87	0.94	0.94	n/a

UTILITY OF SAPAS

- SAPAS score predicts drop-out from specialist treatment (Crawford et al, 2009)
- SAPAS score independently associated with non-response to antidepressant treatment (Gorwood et al, 2010)
- SAPAS captures variance unique to PD, rather than just extremes of general disposition (Ball et al, 2016)
- Adopted by large scale surveys of psychiatric morbidity in England and Denmark

SAPAS significantly correlates with global functioning (Hesse et al, 2008)

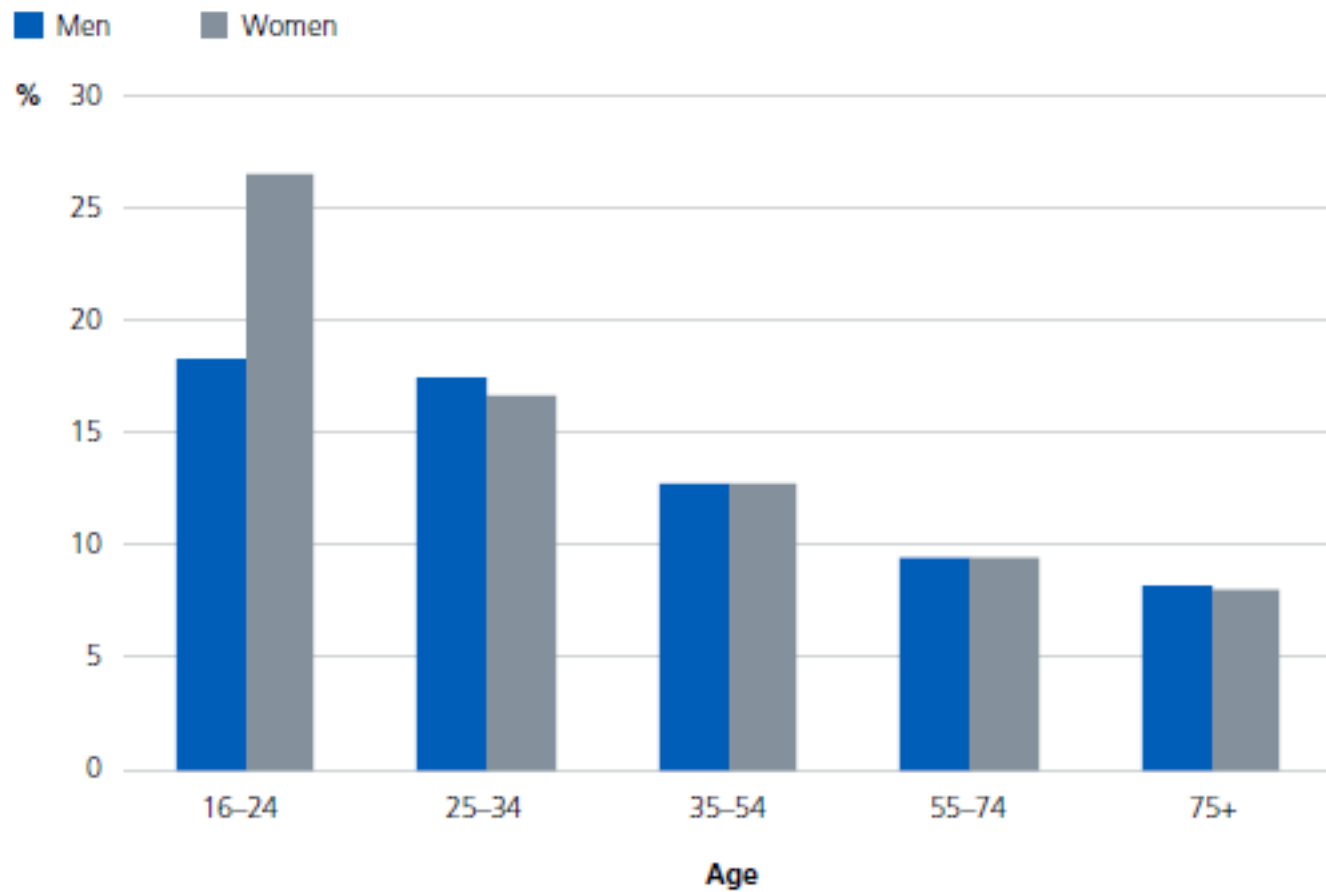
GAF score



SAPAS score

**Figure 7B: Screen positive for any personality disorder (SAPAS),
by age and sex**

Base: all adults



Impact on general health

J. chron. Dis. 1964, Vol. 17, pp. 265–276. Pergamon Press Ltd. Printed in Great Britain

A PROSPECTIVE STUDY OF THE RELATIONSHIP BETWEEN PERSONALITY AND CORONARY HEART DISEASE*

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(Received 5 April 1963)

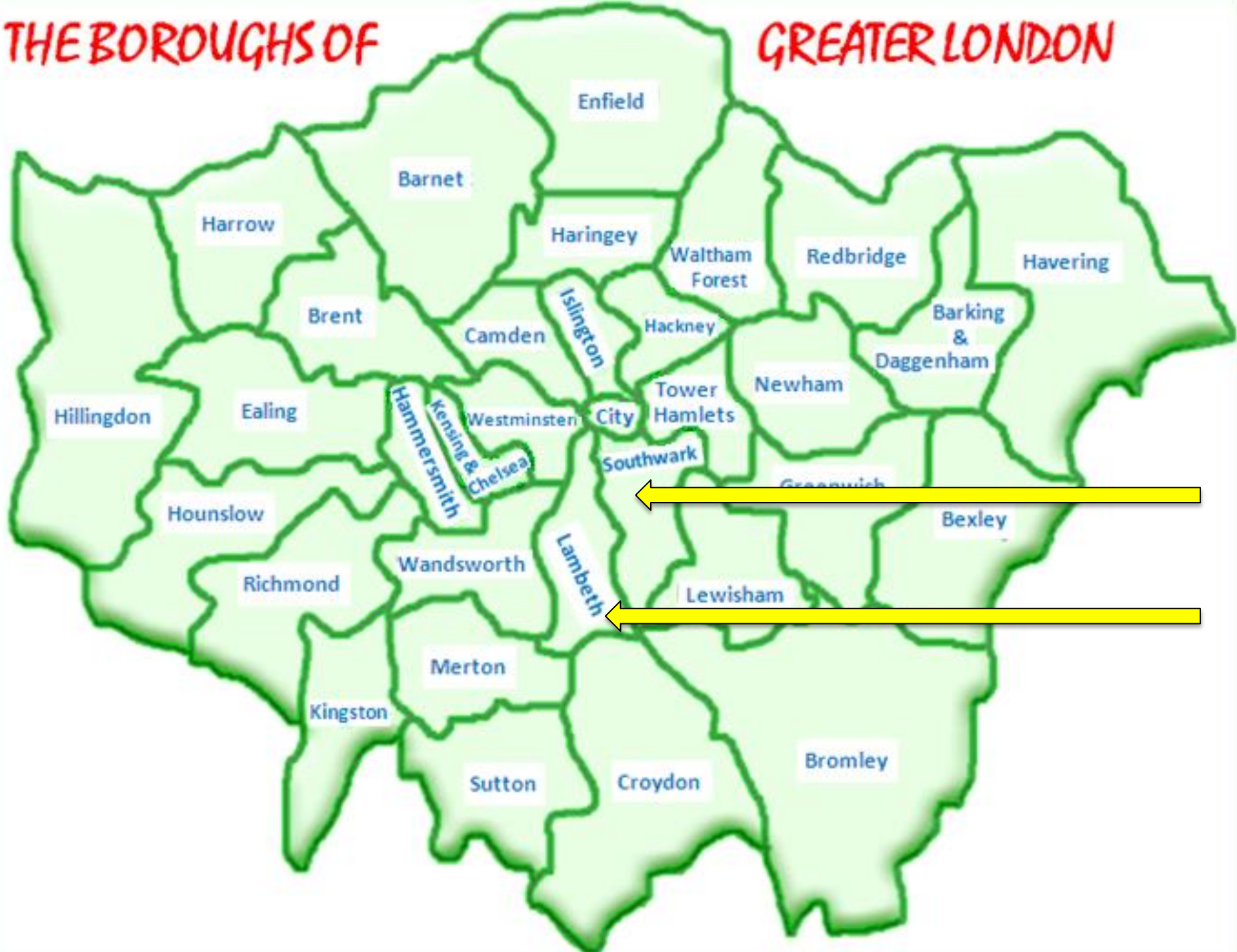
The link between PD and general health

- Cross sectional survey of 1700 randomly selected individuals within Southwark and Lambeth
- Personality dysfunction as measured by SAPAS
- Outcome of interest – self-rated health
“How is your health in general?”



THE BOROUGHES OF

GREATER LONDON



- People screening positively for personality disorder are more likely to report poor general health
- Sub-threshold symptoms of personality disorder are independently associated with poor self-rated health
- People screening positively for personality disorder are more likely to report having multiple longstanding illnesses - backpain, migraine, arthritis, asthma

Fok, M.L. et al (2014). Personality disorder and self-rated health: a population-based cross-sectional survey. *Journal of Personality Disorders*.

WHY?

- ◆ Alternative methodological explanations:
reporting bias – unlikely
reverse causality - possible
- ◆ Common causal pathways – entirely possible
- ◆ Are these isolated findings...?

Population Prevalence of Personality Disorder and Associations With Physical Health Comorbidities and Health Care Service Utilization: A Review

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Deakin University, IMPACT Strategic Research Centre

Andrew M. Chanen
Orygen, the National Centre of Excellence in Youth Mental Health, Melbourne, Australia and The University of Melbourne

Heli Koivumaa-Honkanen
Institute of Clinical Medicine, University of Eastern Finland, and Kuopio University Hospital, Kuopio, Finland

Sharon L. Brennan-Olsen
Deakin University, IMPACT Strategic Research Centre, and Institute for Health and Ageing, Australian Catholic University

Julie A. Pasco
Deakin University, IMPACT Strategic Research Centre, and The University of Melbourne

Lana J. Williams
Deakin University, IMPACT Strategic Research Centre

Personality disorder (PD), outcomes of diverse comorbid physical health conditions, and the associated burden on health service resources have seldom been studied at a population level. Consequently, there is limited evidence that might inform a public health approach to managing PD and associated mental and physical disability. A review was conducted of population-based studies examining the prevalence of PD and associations between physical comorbidities and service utilization. The prevalence of any PDs were common (4.4% –21.5%) among populations spanning England, Wales, Scotland, Western Europe, Norway, Australia, and the United States. Preliminary evidence supports associations between PDs from Clusters A and B and physical comorbidities, namely cardiovascular diseases and arthritis. PD appears to increase health care utilization, particularly in primary care. In order to facilitate rational population health planning, further population studies are required.

Obesity Comorbidity

Personality disorders and obesity: a systematic review

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Received 16 December 2015; revised 22 February 2016; accepted 14 March 2016

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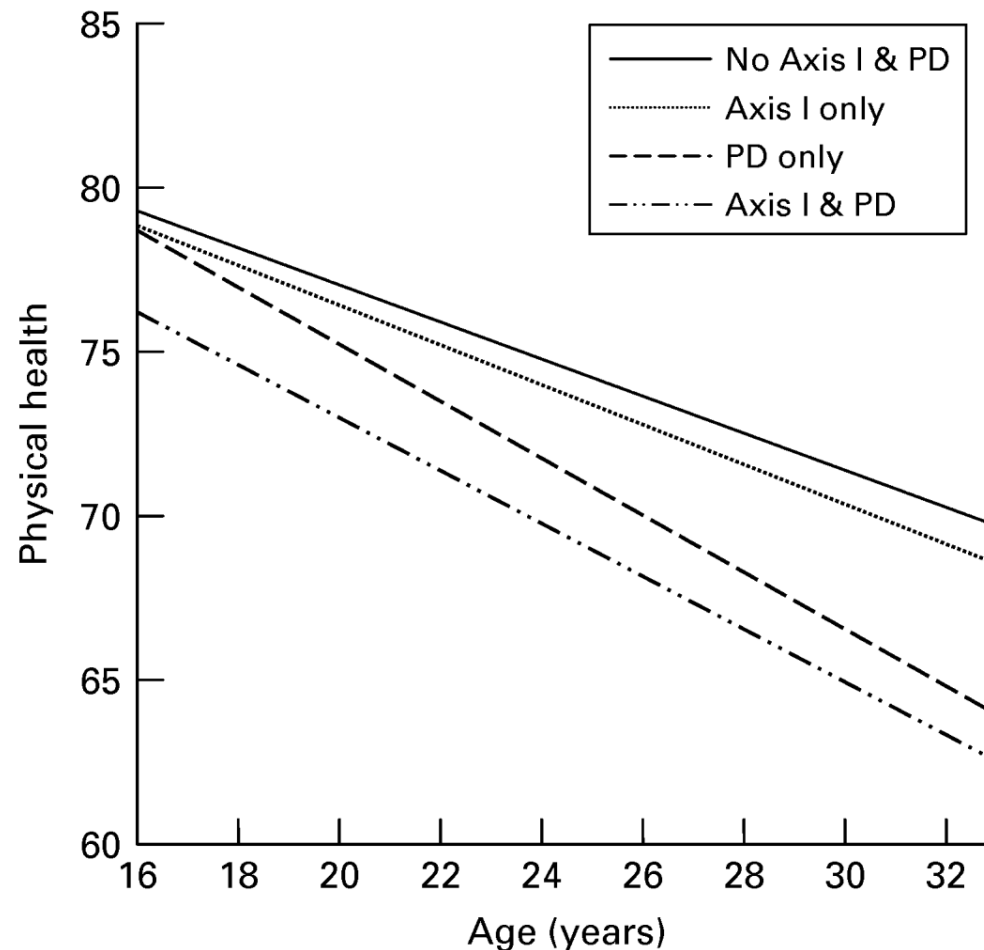
Summary

Background: Studies demonstrate an association between personality traits and obesity as well as their prognostic influence on weight course. In contrast, only few studies have investigated the association between personality disorders (PDs) and obesity.

Objective: The present review summarizes through a comprehensive and critical evaluation the results of 68 studies identified by database research (PubMed and PsycINFO) covering the last 35 years that investigated the association between PDs, overweight and obesity as well as the predictive value of PDs for the development of obesity and the effectiveness of weight reduction treatments.

Results: Adults with any PD have a higher risk of obesity. In the female general population, there is an association between avoidant or antisocial PD and severe obesity. Further, women with paranoid or schizotypal PD have a higher risk of obesity. Clinical studies including foremost female participants showed a higher

Impact of early adolescent psychiatric and personality disorder on long-term physical health: 20-year longitudinal follow-up study



Chen et al. *Psychological Medicine*, [Volume 39, Issue 5](#), May 2009, pp. 865-874

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DOI: <http://dx.doi.org/10.1017/S0033291708004182>

Costs to health services

1-in-5 GP attender met criteria for PD

PD attenders more likely to:

- have psychological morbidity
- attend on emergency basis
- be frequent attenders
- x3 more expensive to manage than those without PD
- interaction between PD and depression significantly predicted excess health costs

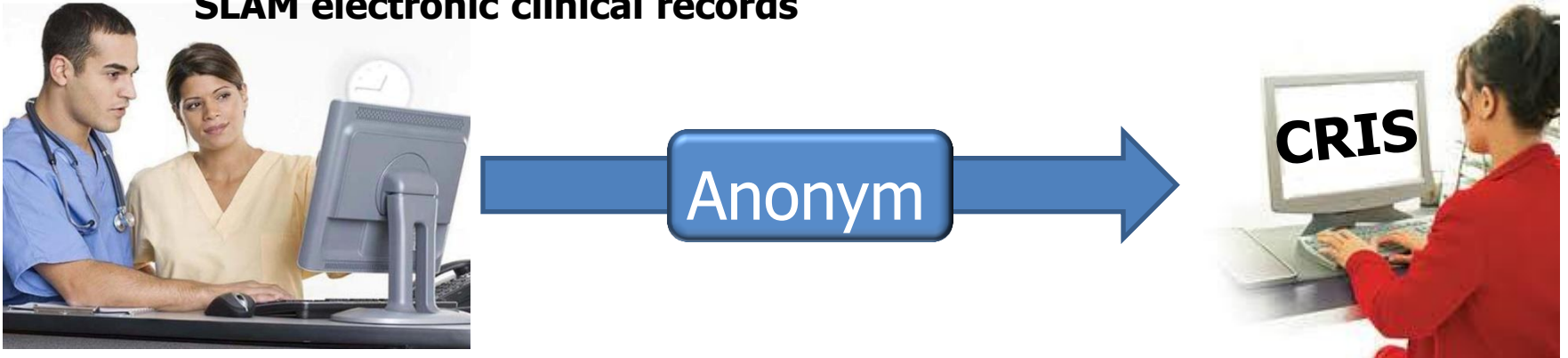
Personality disorder & life expectancy





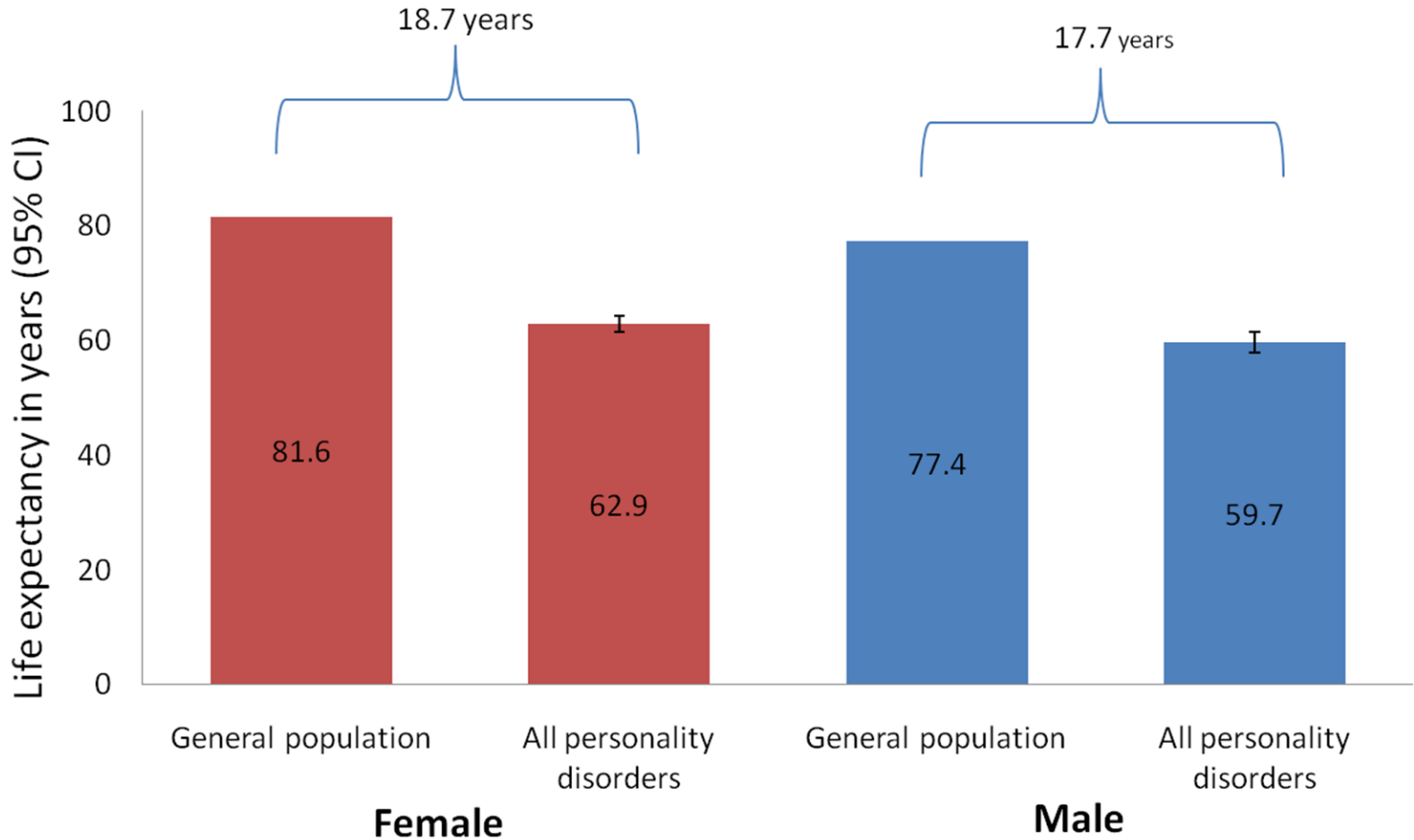
SLaM BRC Case Register

SLaM electronic clinical records

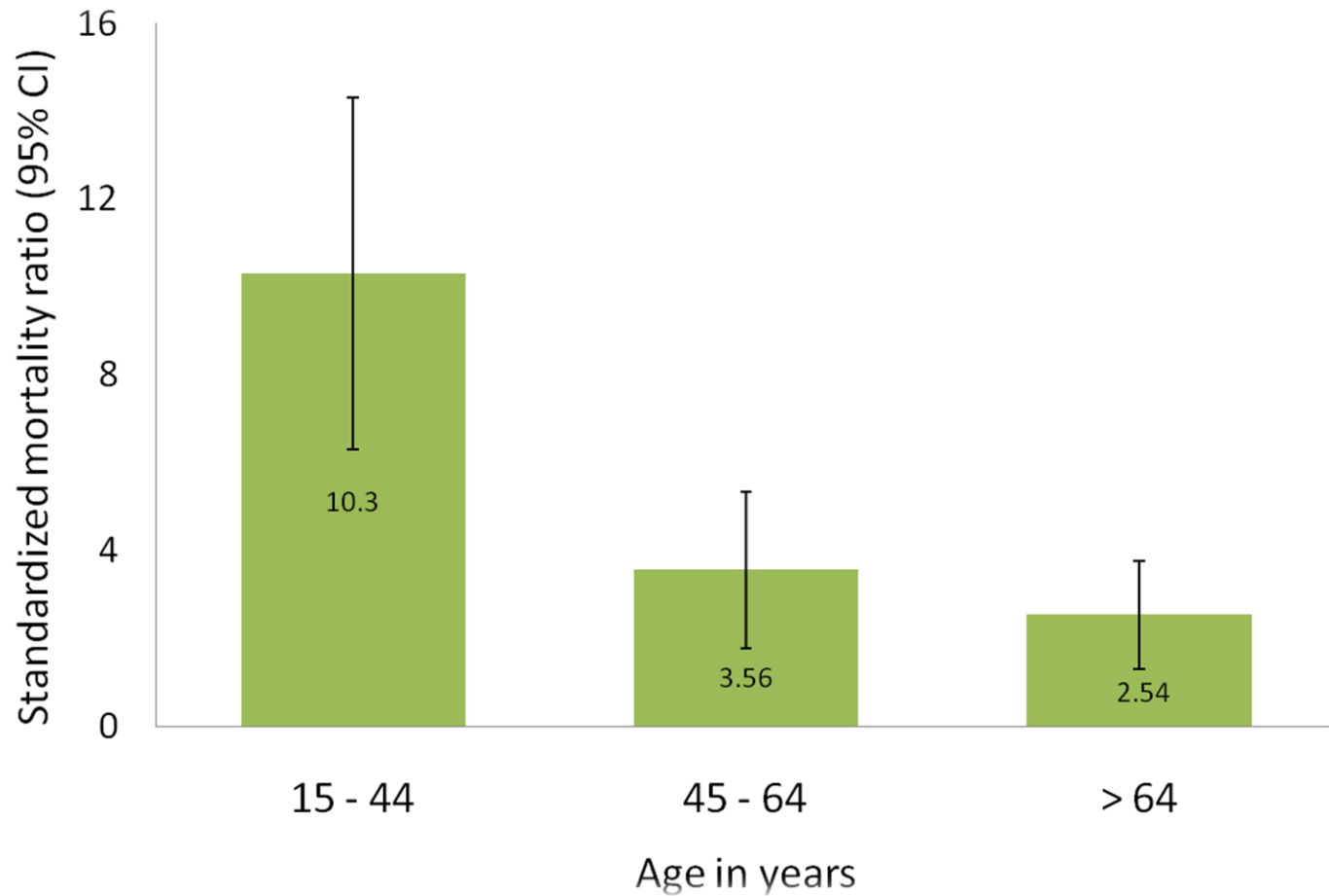


- Across all SLaM services: inpatient, outpatient, CMHTs, liaison services, forensic, old age, CAMHS, LD
- Anonymised database derived from electronic clinical record system
- Over 200,000 patient records

Estimated life expectancy at birth of patients with personality disorder



SMRs for personality disorder by age groups



Excess cause-specific mortality in in-patient-treated individuals with personality disorder: 25-year nationwide population-based study*

Emma Björkenstam, Charlotte Björkenstam, Herman Holm, Bengt Gerdin and Lisa Ekselius

Background

Although personality disorders are associated with increased overall mortality, less is known about cause of death and personality type.

Aims

To determine causes of mortality in ICD personality disorders.

Method

Based on data from Swedish nationwide registers, individuals admitted to hospital with a primary diagnosis of personality disorder between 1987 and 2011 were followed with respect to mortality until 31 December 2011. Standardised mortality ratios (SMRs) with 95% confidence intervals and underlying causes of death were calculated.

Results

All-cause SMRs were increased, overall and in all clusters, for natural as well as unnatural causes of death. The overall

SMR was 6.1 in women and 5.0 in men, as high as previously reported for anorexia nervosa, with higher rates in cluster B and mixed/other personality disorders. The SMR for suicide was 34.5 in women and 16.0 in men for cluster B disorders. Somatic and psychiatric comorbidity increased SMRs.

Conclusions

The SMR was substantially increased for all personality disorder clusters. Thus, there was an increased premature mortality risk for all personality disorders, irrespective of category.

Declaration of interest

H.H. has participated on an advisory board for Janssen-Cilag AB. L.E. participates on advisory boards for H. Lundbeck A/S and Eli Lilly Sweden AB.

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All cause mortality

Men: 6.1

Women: 5.0

Unnatural causes

Suicide

Men: 16.4

Women 32.8

Natural causes

Infections

Men: 10.7

Women: 8.6

“This marked increase in excess mortality casts a shadow over the issue of whether they are given the care they need.”



(38.6%), blood glucose (25.2%) and blood cholesterol (20.7%) were less likely to be recorded. Interventions were not given to all those requiring them. Compared to people with schizophrenia, a lower proportion had evidence of assessment of smoking, illicit drug use, blood glucose and blood lipid levels. Smoking cessation advice was more likely to be offered to people with schizophrenia (difference = 29.4%, 95% CI = 12.5 to 44.7).

Conclusion – Physical health is under-assessed and under-treated in patients with personality disorder. Medical staff must do more to help tackle increased morbidity among this group. Copyright © 2015 John Wiley & Sons, Ltd.

Impact on future psychosocial function



From: <https://margiewarrell.com/facing-uncertainty/>

What do existing
cross-sectional studies tell us?

Severity of PD + social difficulties

	Group vs. no PD; odds ratio			
Factor	Personality difficulty	Simple disorder	Complex disorder	Severe disorder
School, expelled	1.00	1.26	1.65	9.56
Sexually abused	1.61	2.31	3.55	5.60
Homeless	1.43	1.72	2.29	8.83
Ever convicted	1.22	1.67	2.11	10.6
Problem with police	1.27	1.71	2.12	5.73
Unemployed	1.23	1.61	2.15	6.42

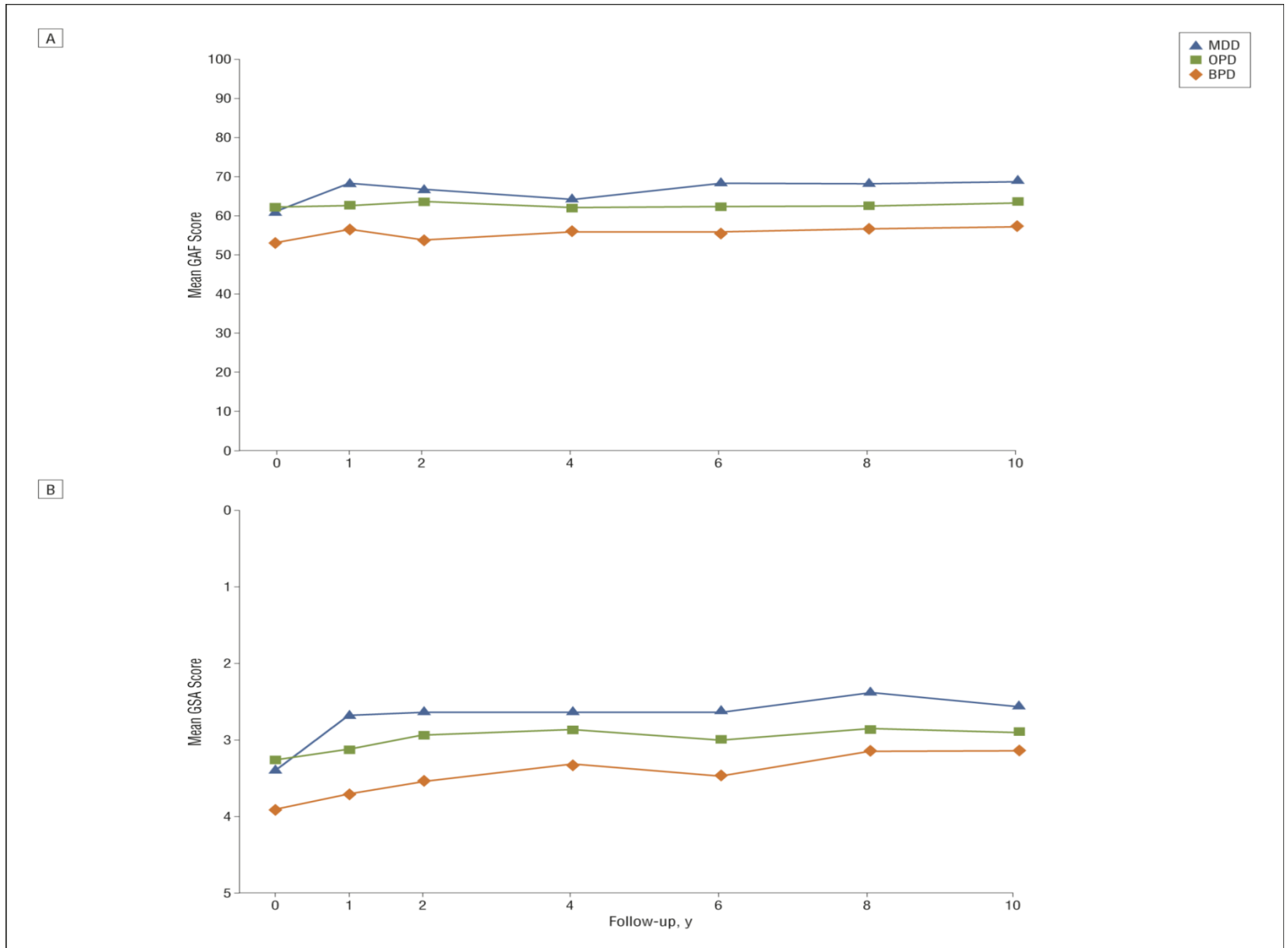
Weighted associations between PD, Anxiety/Depression (AD) and co-morbid PD & AD, with receipt of disability benefits in Great Britain

	PD	AD	Co-morbid PD + AD
Adjusted covariates			
age + sex	1.7 (1.2-2.4)	5.8 (4.1-8.4)	10.9 (8.2-14.6)
+ socio-demographics	1.6 (1.1-2.3)	5.7 (3.9-8.3)	9.5 (6.9-12.9)
+ longstanding illnesses	1.4 (1.0-2.1)	3.4 (2.2-5.3)	4.8 (3.3-6.9)
+ substance use	1.4 (1.0-2.1)	3.4 (2.2-5.3)	4.7 (3.3-6.8)

What do existing cohort studies tell us?

Social functioning at 10 years in the CLPS Study

(from: Gunderson et al Arch Gen Psychiatry. 2011;68(8):827-837)

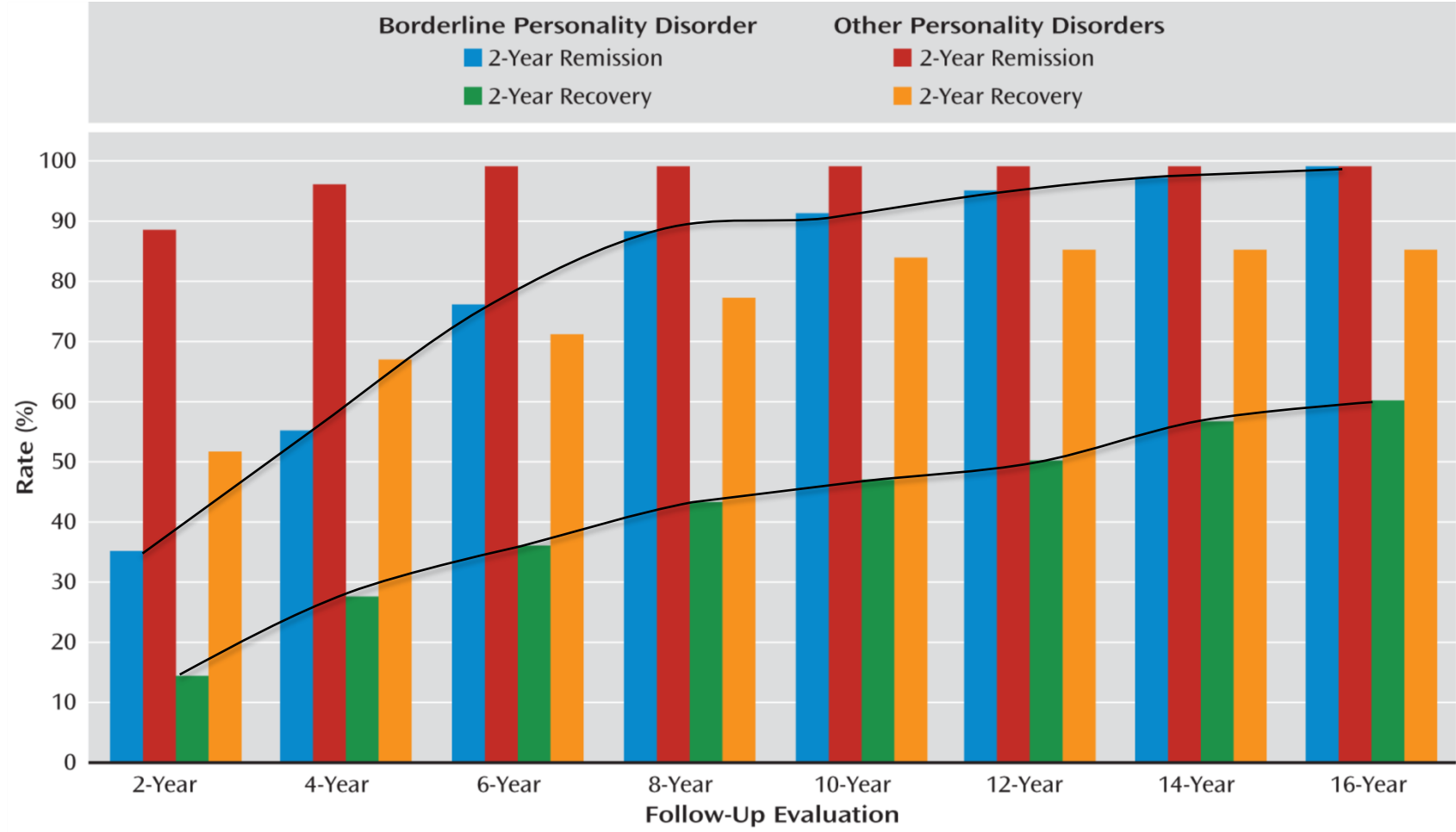


McLean Study of Adult Development (Zanarini et al, 2003)

- Study of 290 former McLean Hospital inpatients with BPD
- Followed-up every 2 years for 16 years
- 'Remission' = no longer meeting criteria for BPD
- 'Recovery' = GAF score ≥ 61 : able to work, at least one sustaining relationship

From: Attainment and Stability of Sustained Symptomatic Remission and Recovery Among Patients With Borderline Personality Disorder and Axis II Comparison Subjects: A 16-Year Prospective Follow-Up Study

Am J Psychiatry. 2012;169(5):476-483. doi:10.1176/appi.ajp.2011.11101550

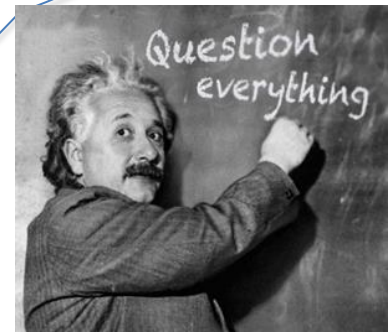


Time to Remissions and Recoveries Lasting at Least 2 Years Among Patients With Borderline Personality Disorder and Comparison Subjects With Other Axis II Disorders

Methodological problems

- ❑ Studies of clinical populations with high levels of functional impairment and co-morbidity
- ❑ Studies have not looked at all forms of PD
- ❑ Have not looked at severity of PD

**Is personality disorder
really associated with an increased
risk of future problems?**



The influence of personality disorder on the future mental health and social adjustment of young adults: a population-based, longitudinal cohort study



Paul Moran, Helena Romaniuk, Carolyn Coffey, Andrew Chanen, Louisa Degenhardt, Rohan Borschmann, George C Patton

Summary

Background Existing knowledge about the consequences of personality disorders is substantially derived from the study of clinical populations. To gain a fuller understanding of the disease burden associated with personality disorders, we report their long-term mental health and social consequences in a large population-based sample of young adults.

Methods We used data from a population-based, ten-wave cohort study of a stratified random sample of non-treatment-seeking young adults recruited from Victoria, Australia, between Aug 20, 1992, and March 3, 2014. The population sample was originally recruited in adolescence: here we report the analysis of data collected from wave 8 (participants aged 24–25 years) and wave 10 (participants aged 34–35 years). Presence and severity of personality disorder were assessed at age 24 years with a semi-structured, informant-based interview (the Standardised Assessment of Personality). At age 35 years, participants were assessed on the occurrence of the following outcomes: major depressive disorder, anxiety disorder, smoking and alcohol consumption, illicit substance use, ever having separated from a long-term partner or been divorced, not currently in a relationship, not currently in paid employment, and in receipt of government welfare. We used multiple imputation to address potentially biased estimates resulting from the reduction of the analysis sample to participants who had completed both survey waves. The imputation dataset contained 1635 individuals.

Findings For the 1520 participants in wave 8, 1145 (75%) informant interviews for personality disorder in these participants took place. At age 24 years, 305 (27%) of the observed sample had either personality difficulties or personality disorder. At age 24 years, in the imputed analysis sample, the severity of personality disorder was associated with the absence of a degree or vocational qualification (adjusted odds ratio [aOR] for the effect of complex and severe personality disorder *vs* no personality disorder 1.76, 95% CI 1.11–2.76), receipt of welfare (2.52, 1.33–4.78), the presence of common mental disorders (1.77, 1.08–2.90), and cigarette smoking (2.01, 1.29–3.14). At age 35 years, severity of personality disorder was independently associated with not being in a relationship (aOR for the effect of complex and severe personality disorder *vs* no personality disorder or personality difficulty 2.05, 95% CI 1.21–3.45), increased odds of an anxiety disorder (2.27, 1.2–4.28), and major depression (2.23, 1.24–4.01).

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Murdoch Childrens Research Institute, University of Melbourne

Carolyn Coffey, Helena Romaniuk,
Rohan Borschmann , George Patton



Centre for Youth Mental Health University of Melbourne

Andrew Chanen



NDARC, University of NSW

Louisa Degenhardt



Our aim

To determine whether, in the general population, there is an independent association between personality disorder and:

- future mental health
- substance use
- social difficulties



Area: 228,000 km²
Population: 4.5 million
Capital: Melbourne

Victoria Adolescent Health Cohort Study

10-wave cohort study of health in young people living in Victoria, Australia

Representative sample of adolescents derived from 2-stage (cluster) sampling procedure:

- Stage 1: 45 schools randomly selected
- Stage 2: a single intact class was selected at random from each participating school

prevention programs. More recently, we have focussed on how teenage experiences, health and lifestyles may



PD

Outcomes



Adolescent phase

Adult phase

wave 1
1992
14.9yr
n=898

wave 2
1993
15.5y
n=1727

wave 3
1993
15.9yr
n=1697

wave 4
1994
16.4yr
n=1628

wave 5
1994
16.8yr
n=1575

wave 6
1995
17.4yr
n=1530

wave 7
1998
20.7yr
n=1601

wave 8
2001/03
24.1yr
n=1520

wave 9
2006/08
29.1 yr
1501

wave10
2012/13
35.1 yr
1443

2 entry points
Total intended sample = 1037(w1) + 995 (w2) = 2032
96% (1943) of sample participated at least once in waves 1-6

SAP
(friend informant)
n=1145

Baseline (age 24 yrs) measures

- **Parental divorce/separation**
- **School qualifications**
- **Common mental disorder: GHQ-12**
- **Alcohol diary**
- **Cigarette smoking**
- **Use of illicit substances**
- **Personality disorder: Standardised Assessment of Personality**

5 levels of severity:

- (0) **No personality disturbance**
- (1) **Personality difficulty** (one criterion less than the threshold for PD)
- (2) **Simple PD** (in one DSM cluster only)
- (3) **Complex PD** (2+ PDs in >1 cluster)
- (4) **Severe PD** (2+ personality disorders in >1 DSM cluster with one being ASPD).

Outcomes (age 35 yrs)

- **Axis I disorder:** Composite International Diagnostic Interview
Depression
Anxiety (GAD, social phobia, agoraphobia, panic)
- **Licit substances**
Cigarette smoking, nicotine dependence
High risk alcohol, alcohol dependence
- **Illicit substances**
Cannabis, amphetamines, cocaine, designer drugs

Outcomes (age 35 yrs)

- **Social difficulties**

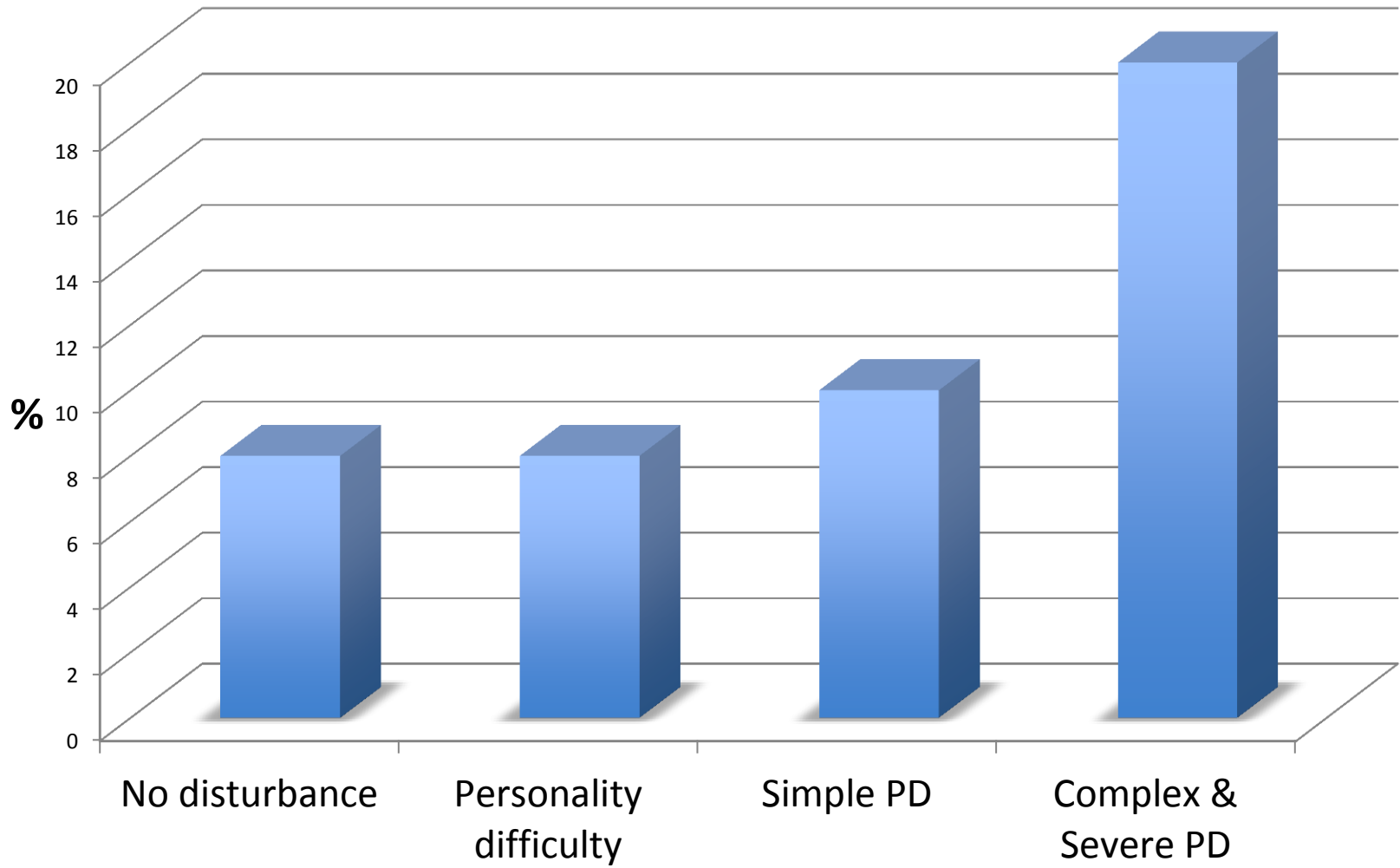
- ever separated/divorced from long-term partner (> 2 yrs)
- not currently in relationship
- in receipt of welfare benefits

'Multiple social difficulties' = 2 + difficulties

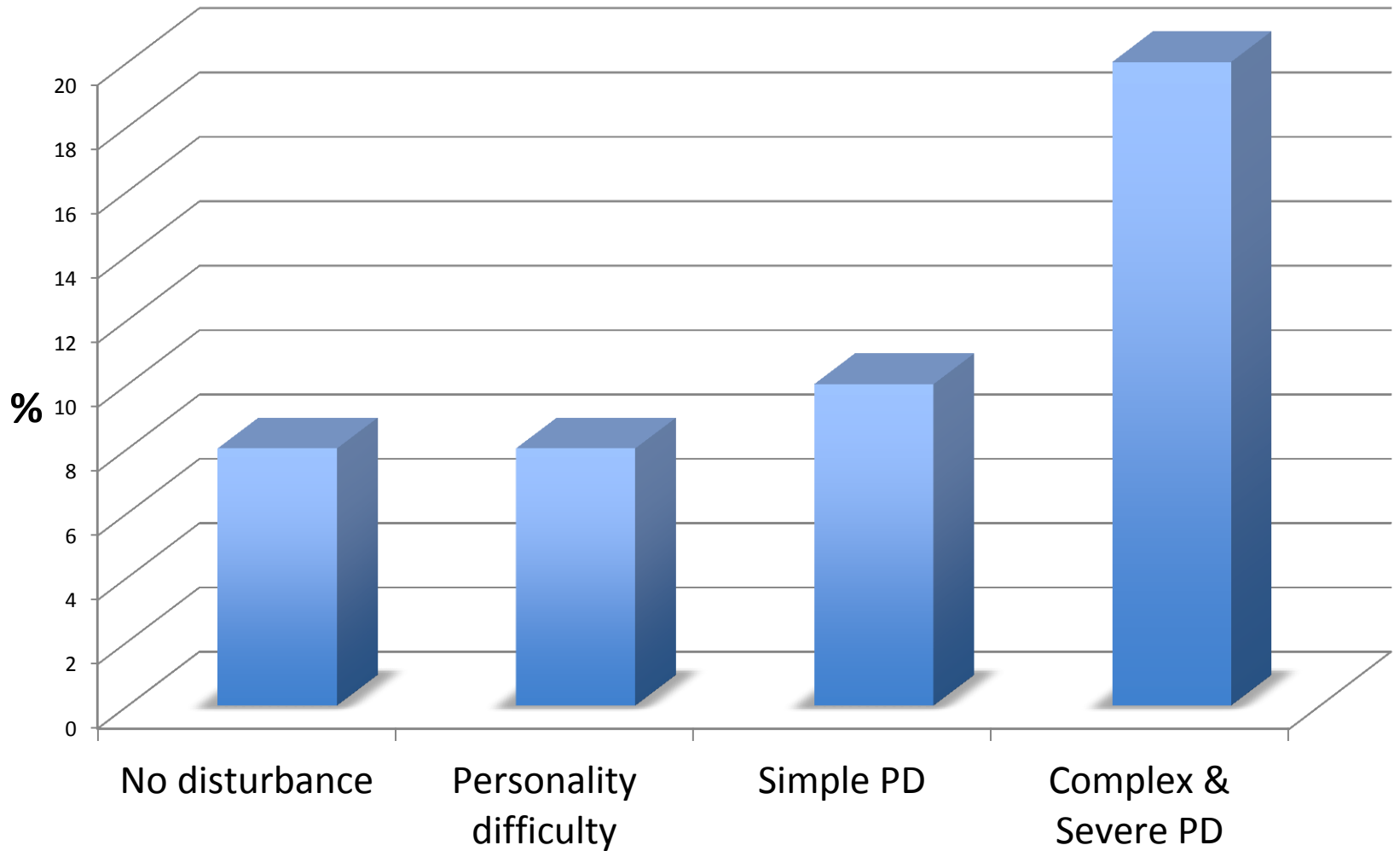
Analysis of the imputed datasets

- N = 1635
- 3 models for each outcome
 - model 1 = unadjusted
 - model 2 = adjusted for sex + baseline social measures
 - model 3 = model 2 + prior mental health + substance use

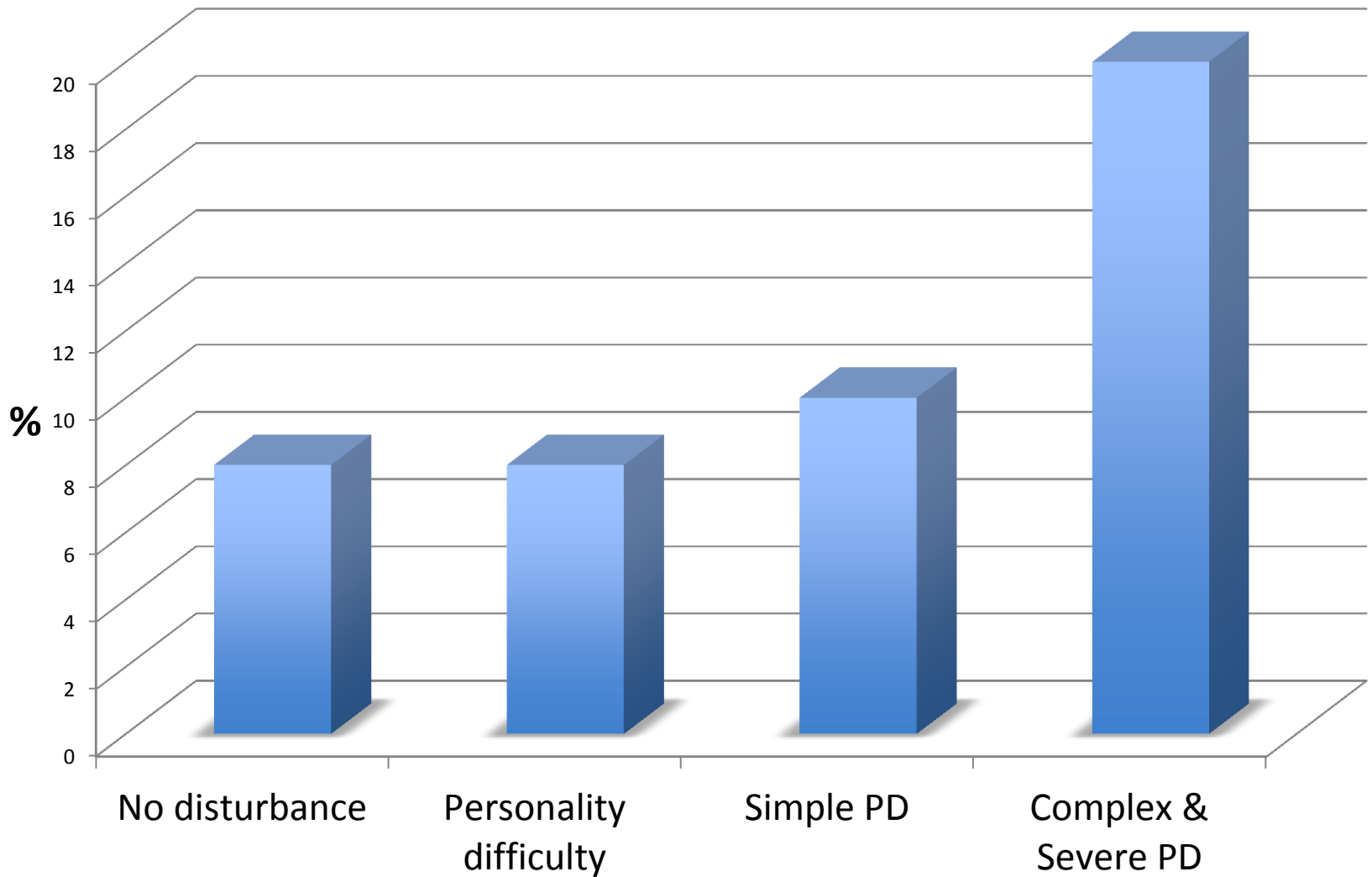
Not in a relationship at 35 yrs, by PD severity at 24 yrs



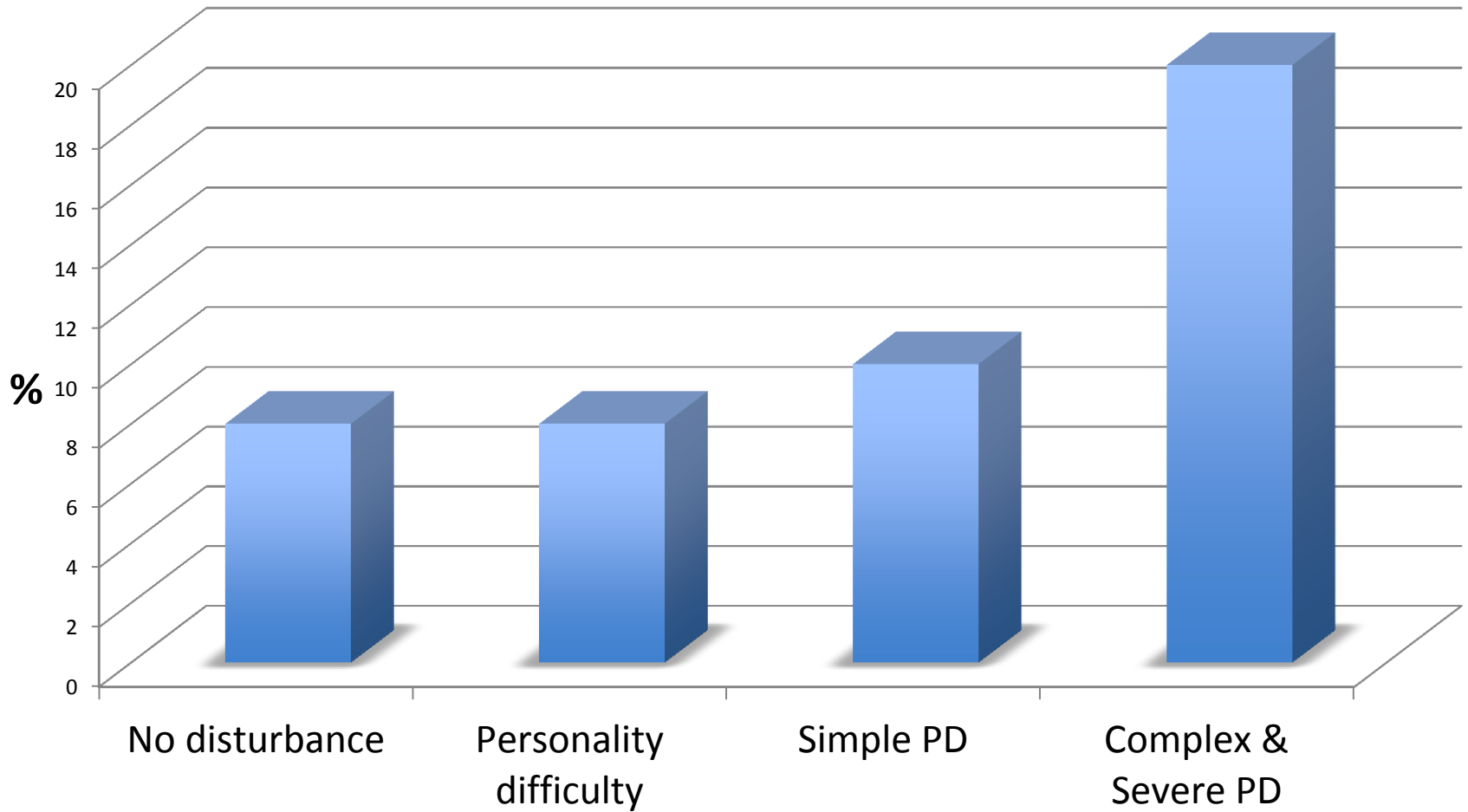
Multiple social problems at 35 yrs, by PD severity at 24 yrs



Depressive disorder at 35 yrs, by PD severity at 24 yrs



Alcohol dependence at 35 yrs, by PD severity at 24 yrs



	No long- term relationship		Separated/divorced	
	OR	95% CI	OR	95% CI
Model 1 (unadjusted)				
No pathology	1		1	
Personality difficulty	1.16	0.62 – 2.16	1.26	0.75 – 2.14
Simple	2.07	1.36 – 3.16	1.41	0.94 – 2.12
Complex/severe	2.50	1.52 -4.13	1.97	1.19 – 3.25
Joint <i>p</i> -value	0.0001		0.03	
Model 2*				
No pathology	1		1	
Personality difficulty	1.15	0.61 – 2.15	1.20	0.69 - 2.04
Simple	2.06	1.35 – 3.14	1.34	0.84 – 1.93
Complex/severe	2.36	1.43 – 3.88	1.77	0.99 – 2.81
Joint <i>p</i> -value	0.0002		0.1	
Model 3 **				
No pathology	1		1	
Personality difficulty	1.09	0.57 – 2.08	1.10	0.63 – 1.91
Simple	1.83	1.18 – 2.83	1.16	0.75 – 1.80
Complex/severe	2.05	1.21 – 3.45	1.50	0.88 – 2.55
Joint <i>p</i> -value	0.006		0.5	

* Model 2 = sex, parental divorce, education, welfare receipt

** Model 3 = model 2 + w8 mental health and substance use

	ANXIETY DISORDER		DEPRESSIVE DISORDER	
	OR	95% CI	OR	95% CI
Model 1 (unadjusted)				
No pathology	1		1	
Personality difficulty	2.73	1.52 – 4.93	2.34	1.28 – 4.28
Simple	1.94	1.15 – 3.27	1.64	1.01 – 2.65
Complex/severe	3.01	1.66 – 5.46	2.83	1.60 – 5.00
Joint <i>p</i> -value	<0.0001		0.0002	
Model 2				
No pathology	1		1	
Personality difficulty	2.59	1.41 – 4.76	2.28	1.24 – 4.19
Simple	1.83	1.08 – 3.10	1.59	0.98 – 2.58
Complex/severe	2.75	1.50 – 5.04	2.69	1.52 – 4.79
Joint <i>p</i> -value	0.0003		0.0005	
Model 3				
No pathology	1		1	
Personality difficulty	2.43	1.30 – 4.53	2.14	1.15 – 3.99
Simple	1.52	0.88 – 2.64	1.33	0.81 – 2.20
Complex/severe	2.27	1.20 – 4.28	2.23	1.24 – 4.01
Joint <i>p</i> -value	0.007		0.009	

	DAILY SMOKING		ALCOHOL DEPENDENCE	
	OR	95% CI	OR	95% CI
Model 1 (unadjusted)				
No pathology	1		1	
Personality difficulty	1.60	0.88 – 2.90	0.99	0.38 – 2.53
Simple	2.01	1.28 – 3.16	1.33	0.72 – 2.48
Complex/severe	2.81	1.69 – 4.68	2.89	1.52 – 5.50
Joint <i>p</i> -value	<0.0001		0.01	
Model 2				
No pathology	1		1	
Personality difficulty	1.54	0.82 – 2.89	0.97	0.37 – 2.53
Simple	1.83	1.15 – 2.90	1.27	0.68 – 2.35
Complex/severe	2.30	1.35 – 3.94	2.44	1.25 – 4.73
Joint <i>p</i> -value	0.003		0.05	
Model 3				
No pathology	1		1	
Personality difficulty	1.32	0.64 – 2.74	0.89	0.33 – 2.43
Simple	1.60	0.91 – 2.81	1.11	0.59 – 2.10
Complex/severe	1.81	0.97 – 3.40	2.29	1.14 – 4.61
Joint <i>p</i> -value	0.14		0.11	

CONCLUSIONS

- ❑ In the general population, PD severity predicts the future occurrence of major depression, anxiety + relational problems
- ❑ These effects are independent of previous patterns of substance use and prior depression/anxiety
- ❑ Future trajectories for substance misuse are best predicted by prior substance use, not by the presence of PD

Impact of personality disorder on the treatment of common mental disorder

ADVERSE EFFECT

Personality disorder and the outcome of depression: meta-analysis of published studies

GILES NEWTON-HOWES, PETER TYRER and TONY JOHNSON

Background There is conflicting evidence about the influence of personality disorder on outcome in depressive disorders.

Aims Meta-analysis of studies in which a categorical assessment of personality disorder or no personality disorder was made in people with depressive disorders, and categorical outcome (recovered/not recovered) also determined.

Method Systematic electronic search of the literature for relevant publications. Hand searches of *Journal of Affective Disorders* and recent reviews, with subsequent meta-analysis of selected studies.

Results Comorbid personality disorder with depression was associated with a doubling of the risk of a poor outcome for depression compared with no personality disorder (random effects model OR = 2.18, 95% CI 1.70–2.80), a robust finding maintained with only Hamilton-type depression criteria at outcome (OR = 2.20, 95% CI 1.61–3.01). All treatments apart from electroconvulsive therapy (ECT) showed this poor outcome, and the ECT group was small.

Conclusions Combined depression and personality disorder is associated with a poorer outcome than depression alone.

Declaration of interest P.T. and T.J. belong to a UK Medical Research Council Cooperative Group (Mencog) evaluating mental health interventions. P.T. is Editor of the *British Journal of Psychiatry* but had no part in the evaluation of this paper.

Reports in the psychiatric literature that comorbid personality disorder is associated with a poor outcome in depression have recently been challenged (Brigier *et al.*, 2002; Mulder, 2002). This is an important clinical issue that needs to be resolved and we judged that there have now been sufficient high-quality studies to enable a definitive answer to be obtained from a systematic review. Before the introduction of DSM-III (American Psychiatric Association, 1980) there were few studies examining the influence of personality disorder on the outcome of depression, although clinical opinion suggested that people with personality disorder responded less well to treatment (Sargant, 1966) and follow-up studies supported this (Greer & Cawley, 1966). However, both before and since the introduction of DSM-III, personality problems have been studied in some depth using self-rating questionnaires in which personality abnormality is assessed dimensionally (Eysenck, 1959; Eysenck & Eysenck, 1964; Cloninger, 1987). Although there is good evidence that personality abnormality is best viewed as a dimensional construct (Livesley, 1991), in clinical practice decisions are dichotomous and are aided by a categorical diagnostic system; hence we used this in our systematic review.

METHOD

The aim of the meta-analysis was to examine all studies of outcome in depressive disorders in which: (a) personality disorder was assessed formally and (b) outcome was recorded either using standard rating scales, such as the Hamilton Rating Scale for Depression (HRSD; Hamilton, 1960) or another measure, such as clinical judgement.

Inclusion criteria

Inclusion criteria were broad to ensure maximum accrual of information for

systematic review. Papers were selected if: (a) written in English; (b) participants were assessed for both depression and personality disorder using a scale published in a peer-reviewed journal; (c) the population studied was aged at least 18 years; (d) assessment of outcome of depression was at least 3 weeks after initial assessment, this being considered the minimum time necessary for treatment response. Both observational studies and randomised trials were included and there were no restrictions with regard to type of treatment or its duration.

Exclusion criteria

Studies that examined personality using a dimensional scale were excluded, as these could not be compared directly with those in which a categorical diagnosis of personality disorder was made.

Search method

Medline, Cinhal and Psycinfo were searched online from 1966, 1982 and 1982, respectively. The terms DEPRESSION, MENTAL ILLNESS and PERSONALITY DISORDER were entered and combined. All abstracts were reviewed and those with data suggesting satisfaction of the inclusion criteria read in full.

In addition, a hand search of the *Journal of Affective Disorders* was carried out by G.N.-H. This served as an audit of the online search and provided additional sources of information. All relevant review articles were also examined closely for eligible studies, especially those by McGlashan (1987), Reich & Green (1991), Reich & Vasile (1993), Shea *et al.* (1992), Ilardi & Craighead (1995), Corballe *et al.* (1996), Dreesen & Arntz (1998) and Mulder (2002). The 'grey' literature was not examined as it was considered unlikely to provide further data.

Data extraction and checking

Two-by-two tables of the numbers of patients with or without personality disorder cross-classified by response to treatment (and stratified by treatment modality when possible) were drawn up for each paper, either by direct extraction from published tables and text (including associated papers), derived from summary percentages, or reconstructed from summary statistics such as χ^2 . The resultant 2x2 tables were cross-checked against all



The effects of comorbid personality disorders on cognitive behavioral treatment for panic disorder*

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ABSTRACT

The present study investigated the influence of personality pathology assessed both dimensionally and categorically on acute clinical response to group cognitive-behavioral treatment in a large sample of panic disorder patients ($N = 173$) meeting DSM-IV-R criteria for panic disorder with or without agoraphobia. Nearly one-third of the sample met for one or more personality disorders, with the majority meeting for a Cluster C diagnosis. Patients with one or more comorbid personality disorders displayed higher baseline and higher post treatment scores across multiple indices of panic disorder severity compared to those without personality disorders. After controlling for panic disorder severity at baseline, the presence of both Cluster C and Cluster A Pers-Ds predicted a poorer outcome, whereas when assessed dimensionally, only Cluster C symptoms predicted a poorer treatment response. However, the influence of personality pathology was modest relative to that of baseline panic disorder severity.

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1. Introduction

Panic disorder is frequently complicated by the presence of both psychiatric comorbidity (Brown *et al.*, 1995) and non-psychiatric medical comorbidity (Schmidt *et al.*, 1996). In terms of psychiatric comorbidity, as many as 70% of patients with panic disorder present with co-occurring psychiatric diagnoses (Reich and Troughton, 1988). The high rate of comorbidity in panic disorder has naturally led to evaluation of the effects of co-occurring conditions on treatment outcome.

Cognitive-behavioral treatment (CBT) has established efficacy in the treatment of panic disorder (Barlow *et al.*, 2000; Clark *et al.*, 1994; Gould *et al.*, 1995; Hofmann, 2008). However, following CBT, many patients continue to display residual symptoms requiring some to seek out additional treatment (Brown and Barlow, 1995). Consequently, identifying factors that predict a poor response to CBT is an important research goal for optimizing the clinical management of panic disorder (Wolfe and Maser, 1994).

Personality disorder comorbidity is frequently cited as a factor implicated in poor treatment response to both pharmacotherapy

(Slaap and den Boer, 2001) and psychosocial treatments (Milrod *et al.*, 2007; Reich and Green, 1991; Reich and Vasile, 1993). Although not studied systematically, personality dysfunction may negatively affect treatment outcome through its potential influence on other moderators of treatment outcome such as patient drop-out (Grilo, Money, Barlow, Goddard, Gorman, Hofmann *et al.*, 1998), compliance with treatment regimens (Schmidt and Woolaway-Bickel, 2000), the therapeutic alliance, or motivation for treatment (Persons *et al.*, 1988).

The presence of a comorbid personality disorder as measured by either structured interview (i.e., SCID II) or questionnaire has been shown to predict treatment non-response (Marchesi *et al.*, 2006; Noyes *et al.*, 1990; Reich, 1988) or relapse upon medication discontinuation (Green and Curtis, 1988). Despite the claim that patients displaying comorbid Axis II pathology respond less favorably to cognitive-behavioral treatment (Mennin and Heimberg, 2000), evidence from controlled prospective studies is inconclusive. This is due to the small number of prospective studies and the significant methodological limitations of the existing studies i.e., small sample size, use of questionnaires to assess personality dysfunction, and failure to control for baseline severity of Axis I pathology (Dreesen and Arntz, 1998; Shear *et al.*, 1994).

Of the prospective studies investigating the linkage between Pers-D comorbidity and treatment response in panic disorder, three published studies have investigated the effects of Pers-D pathology (as assessed by structured clinical interview) on panic patients'

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NULL EFFECT

Behavioural and Cognitive Psychotherapy, 2008, 36, 99–112

Printed in the United Kingdom First published online 16 November 2007 doi:10.1017/S1352465807004018

BRITISH JOURNAL OF PSYCHIATRY (2007), 192, 503–508. doi:10.1192/bjp.bp.106.024737

Temperament, character and personality disorders as predictors of response to interpersonal

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to this paper are expanded upon. The study
was approved by the Canterbury (New

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is put into question.

Keywords: Panic disorder, cognitive behaviour therapy, prediction research.

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¹See pp. 496–502, this issue.

companion paper (Luty *et al.*, 2007, this
issue). Only methodological issues
and our tendency to continue striving in
the absence of reward (persistence). In

- ❑ Established in England in 2008 to improve access to psychological interventions for depression and anxiety
- ❑ Single point of access for evidence-based psychological treatments for mild-moderate anxiety or depression (**CBT**)
 - ❑ 1 million referrals/year ~ 50% enter treatment
 - ❑ Stepped care: high (up to 20 sessions) or low intensity (6-10 sessions)
 - ❑ 'Recovery' = moving from case → non-case
 - ❑ 46% achieve recovery (2015/16)

Reli

Improving Access to Psychological Therapies is an NHS programme rolling out services across England offering interventions approved by the [National Institute of Health and Clinical Excellence \(NICE\)](#) for treating people with depression and anxiety





Talking therapies: A four-year plan of action

A supporting document to No health
without mental health: A cross-
government mental health outcomes
strategy for people of all ages

- IAPT services will have a substantial role in the management of people with personality disorder
- Assuming prevalence of 4% \approx 40,000 people with personality disorder/yr
- Do personality difficulties effect response to treatment?



The impact of comorbid personality difficulties on response to IAPT treatment for depression and anxiety



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IAPT

ABSTRACT

The UK's Improving Access to Psychological Therapies (IAPT) initiative provides evidence-based psychological interventions for mild to moderate common mental health problems in a primary care setting. Predictors of treatment response are unclear. This study examined the impact of personality disorder status on outcome in a large IAPT service. We hypothesised that the presence of probable personality disorder would adversely affect treatment response.

Method: We used a prospective cohort design to study a consecutive sample of individuals ($n = 1249$). **Results:** Higher scores on a screening measure for personality disorder were associated with poorer outcome on measures of depression, anxiety and social functioning, and reduced recovery rates at the end of treatment. These associations were not confounded by demographic status, initial symptom severity nor number of treatment sessions. The presence of personality difficulties independently predicted reduced absolute change on all outcome measures.

Conclusions: The presence of co-morbid personality difficulties adversely affects treatment outcome among individuals attending for treatment in an IAPT service. There is a need to routinely assess for the presence of personality difficulties on all individuals referred to IAPT services. This information will provide important prognostic data and could lead to the provision of more effective, personalised treatment in IAPT.

Methods

● Aim

To examine whether the likely presence of PD independently predicts treatment outcomes in a large IAPT service

● Design

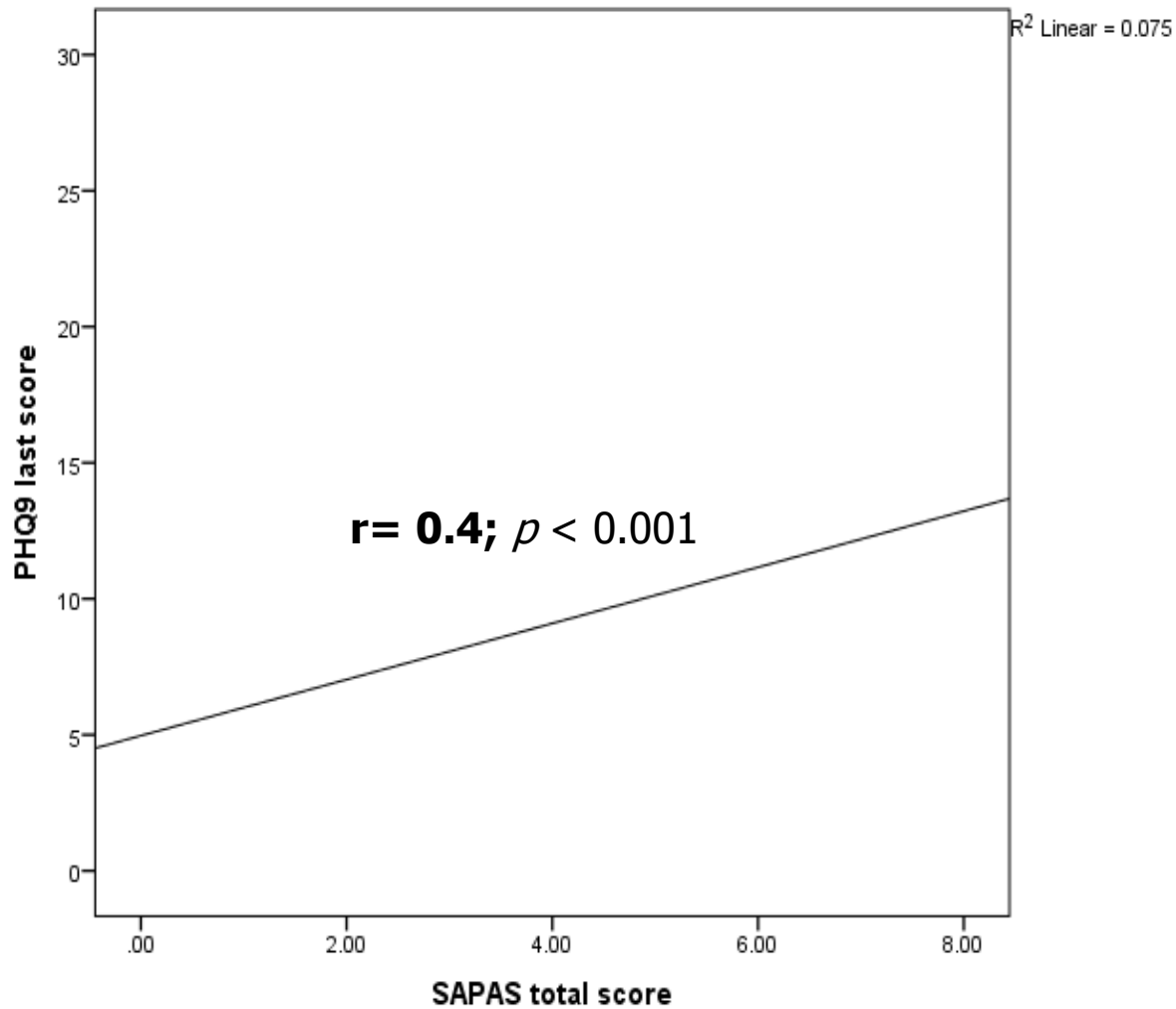
- Prospective cohort study
- Data extracted from IAPTus for all individuals who initially attended Jan 2012 – Jan 2013 and who had a PD rating (n=1249)
- 1005/1249 (81%) had end of treatment ratings



Measures

- **Depression:** Patient Health Questionnaire-9 (PHQ-9)
- **Anxiety:** Generalised Anxiety Disorder Assessment (GAD-7)
- **Impairment:** Work & Social Adjustment Scale (W&SAS)
- **Personality difficulties:** SAPAS

Relationship between SAPAS score and depression at last session

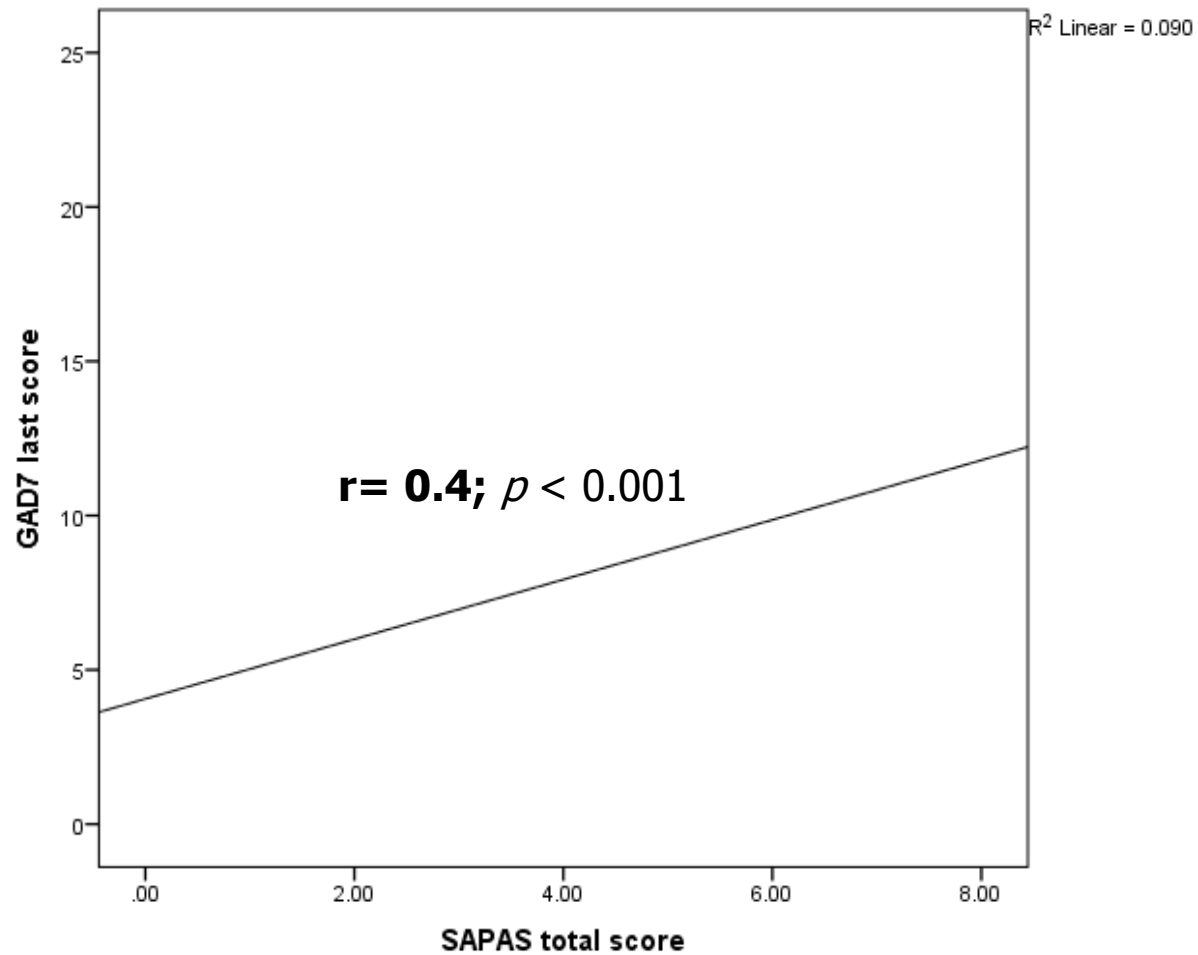


Regression model examining predictors of depression at end of treatment

Independent variable	Beta	<i>p</i> -value	95% CI
Gender	-0.01	0.71	- 1.1, 0.75
Age	0.07	0.03	-0.00, 0.08
N of sessions	-0.22	<0.001	-0.3, -0.17
Baseline PHQ-9 score	0.49	<0.001	0.43, 0.63
Baseline GAD-7 score	0.00	0.95	-0.11, 0.12
Baseline W&SAS score	0.07	0.06	-0.00, 0.11
SAPAS	0.08	0.02	0.04, 0.56

Adj. $R^2 = 0.35$; R^2 change estimate (ΔR^2) = 0.005; $p = 0.02$

Relationship between SAPAS score and anxiety at last session

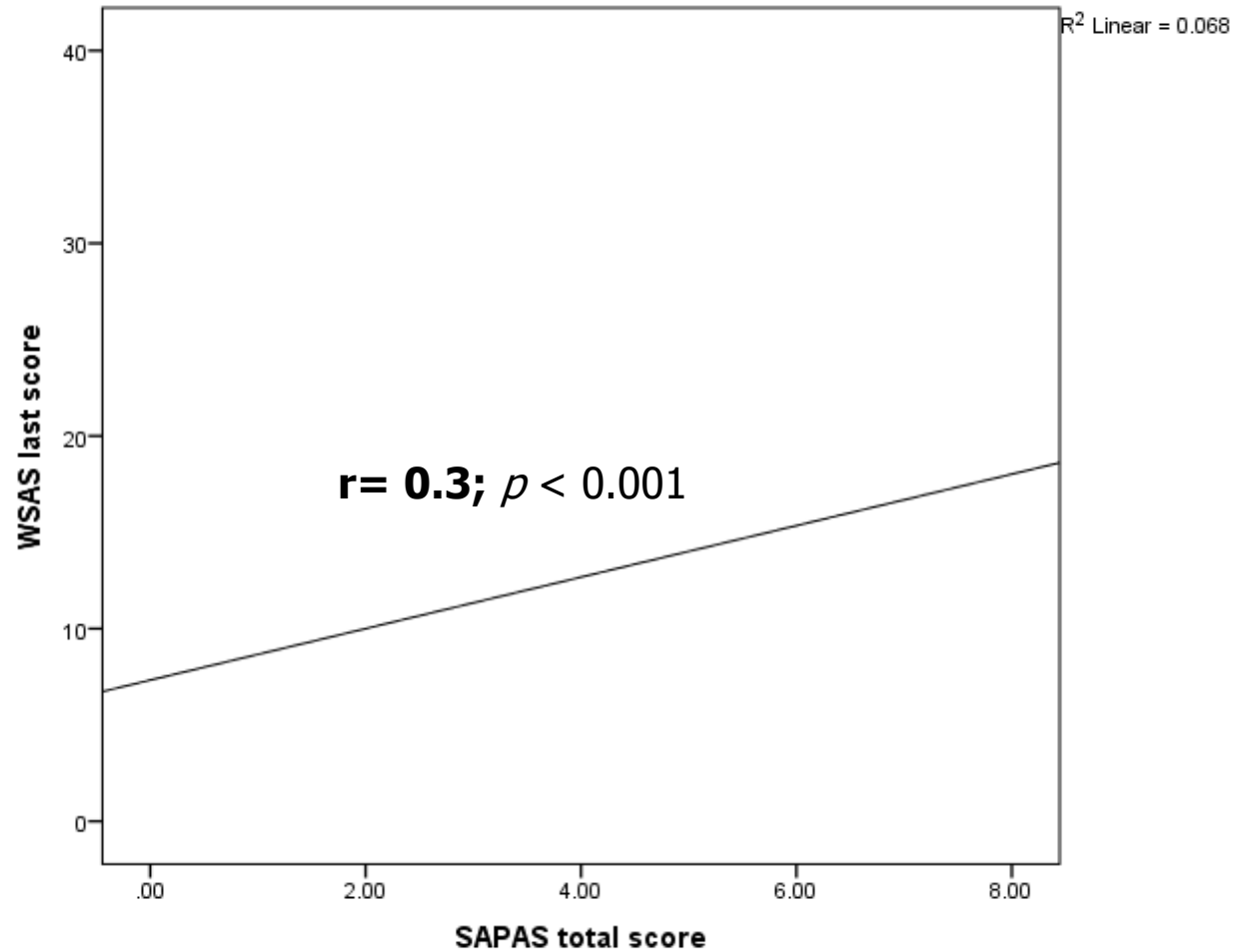


Regression model examining predictors of anxiety at end of treatment

Independent variable	Beta	p-value	95% CI
Gender	-0.00	0.91	-0.85, 0.75
Age	0.06	0.07	-0.00, 0.1
N of sessions	-0.22	<0.001	-0.26, - 0.15
Baseline PHQ-9 score	0.25	<0.001	0.14, 0.32
Baseline GAD-7 score	0.26	<0.001	0.19, 0.39
Baseline W&SAS score	0.05	0.22	-0.02, 0.08
SAPAS	0.11	0.003	0.12, 0.57

Adj. R² = 0.32; $\Delta R^2 = 0.009$; p = 0.003

Relationship between SAPAS score and functioning at last session



Regression model examining predictors of functioning at end of treatment

Independent variable	Beta	p-value	95% CI
Gender	0.01	0.85	-1.1, 1.4
Age	0.03	0.36	-0.03, 0.07
N of sessions	-0.14	< 0.001	-0.3, -0.11
Baseline PHQ-9 score	0.30	< 0.001	0.31, 0.59
Baseline GAD-7 score	-0.07	0.1	-0.29, 0.03
Baseline W&SAS score	0.39	< 0.001	0.33, 0.48
SAPAS	0.07	0.03	0.03, 0.73

Adj. $R^2 = 0.35$; $\Delta R^2 = 0.004$; $p = 0.03$

Main findings

Personality dysfunction independently predicts

- Higher levels of anxiety, depression and functional impairment at the end of treatment
- Less clinical change
- Less recovery at end of treatment

Conclusions

- The presence of personality difficulties is an important prognostic indicator in the IAPT population (1 million referrals/yr)
- Mechanism unclear:
 - increased drop-out? X
 - sicker at baseline? X
 - dynamic issues?
 - more complex alliance?

Implications

- Personality screening could provide valuable prognostic data regarding therapy outcomes
- Personality screening could also help shape more personalized, effective, brief psychological treatment
 - more focus on core beliefs vs. automatic thoughts
 - more consideration of issues around endings
 - more consideration of alliance/relational issues

Major epidemiological findings

- ❑ People with personality disorder experience major health and social disadvantages
- ❑ The reduced life expectancy of people with personality disorder
- ❑ The failure of CBT to help some people with common mental disorder is in part attributable to personality disorder

Personality disorder is key to
understanding population health

**BUT WHERE IS
PERSONALITY DISORDER
IN THIS STORY?**



The Lancet Psychiatry

Volume 2, Issue 3, March 2015, Pages 201–202



Comment

Personality disorder and population mental health

Shae E Quirk^a, Lana J Williams^a, Andrew M Chanen^{b, c}, Michael Berk^{a, b, c, d} 

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[http://dx.doi.org/10.1016/S2215-0366\(14\)00144-8](http://dx.doi.org/10.1016/S2215-0366(14)00144-8)

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“Personality disorder deserves recognition as an independent and direct contributor to and moderator of population mental and physical health, alongside mental state disorders.”

Thank you for listening

paul.moran@bristol.ac.uk

Thanks

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