

Short report

On poverty, politics and psychology: the socioeconomic gradient of mental healthcare utilisation and outcomes[†]

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Summary

Since 2008, the Improving Access to Psychological Therapies (IAPT) programme has disseminated evidence-based interventions for depression and anxiety problems. In order to maintain quality standards, government policy in England sets the expectation that 50% of treated patients should meet recovery criteria according to validated patient-reported outcome measures. Using national IAPT data, we found evidence suggesting that the prevalence of mental health problems is greater in poorer areas and that these areas had lower average recovery rates. After adjusting benchmarks for

local index of multiple deprivation, we found significant differences between unadjusted (72.5%) and adjusted (43.1%) proportions of underperforming clinical commissioning group areas.

Declaration of interest

None.

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Improving Access to Psychological Therapies (IAPT) is a large-scale government funded programme that has dramatically changed the face of psychological care in England since its inception in 2008.¹ Its defining features include the provision of evidence-based psychological treatments informed by clinical guidelines, the delivery of interventions in a stepped-care model and the routine application of validated patient-reported outcome measures (PROMs) to monitor and evaluate treatment.² Currently around 147 IAPT services provide treatment across 212 clinical commissioning group (CCG) localities.³ Consistent with UK government policy,⁴ mental health services are expected to attain measurable outcomes for equitable access to care, waiting times, clinical improvement and satisfaction. Current policy rhetoric emphasises the notion of 'recovery' from common mental disorders.⁴ Informed by outcomes observed in an initial pilot study,¹ the clinical performance of IAPT services is assessed based on whether at least 50% of treated cases recover according to data derived from PROMs. Available data³ appear to show very wide variations in recovery rates across CCG areas, ranging between 8.2 and 86.6%. At face value this may indicate marked variations in the quality and effectiveness of care. For example, a national evaluation report suggested that variability in outcomes could be partly explained by lack of fidelity to evidence-based treatment guidelines and lower mean therapy sessions offered by some services.⁵ An alternative and overlapping explanation is that such variability may be influenced by differences in the local clinical populations. For example, there is a wide gradient of socioeconomic deprivation across England.⁶ More deprived local populations show a greater prevalence of psychiatric morbidity.⁷ They also appear to be less likely to present to mental health services⁸ and less likely to start therapy if they are referred to psychological care.⁹ Furthermore, there is emerging evidence that socioeconomic status is associated with counselling¹⁰ and psychotherapy treatment outcomes.¹¹ Considering the above, we examined the relationships between socioeconomic deprivation with referrals, access to therapy and clinical outcomes in English psychological services aligned to the national IAPT programme, based on publicly available data³ covering more than 200 local CCG areas.

Method

We obtained available data on new referrals, case-load sizes (individuals that were referred, accessed therapy and were discharged from care) and recovery rates nested within 211 identifiable CCG areas across England, for the period July to September 2014. This included data on 293 400 referrals (referrals per CCG between 70 and 4355) and clinical outcomes for a total of 110 415 patients who accessed therapy (case-load sizes per CCG 35 to 2425) in the English IAPT system. The recovery rate calculations are based on validated PROMs,^{12,13} which are combined into a single index of recovery representing the number of individuals whose post-treatment depression and anxiety scores were below established clinical cut-offs used to screen common mental disorders.¹ We matched these data to the normalised index of multiple deprivation (IMD)⁶ rank per each CCG, where a lower rank denotes greater deprivation.

Associations were examined in four steps. First, we calculated rank correlations between IMD, number of referrals and case-load sizes per CCG area. Second, we calculated rank correlations between IMD and recovery rates. A sensitivity analysis excluding extreme outliers was carried out to assess whether CCG areas with unusually large or small recovery rates overly influenced associations between the variables of interest. Next, we used weighted least squares regression to assess the proportion of variance in recovery rates attributable to IMD, and to estimate adjusted recovery rates. We estimated 95% confidence intervals weighted by sample size to account for measurement error, and based on the rationale that services should be expected to perform at least as well as the 'average' IAPT site working within a similar socioeconomic context. The predictors entered into the regression model included IMD and a dummy variable to assess the influence of outlier cases. Finally, we used chi-square and kappa (κ) statistics to compare the classification of CCG areas with sub-optimal outcomes according to (a) the current 50% benchmark and (b) the lower 95% confidence interval for the IMD-adjusted benchmarks. Ethical approval was not required for these analyses, since they relied on information available in the public domain that does not contain any personally identifiable patient data.

[†]See invited commentary, pp. 431–432, this issue.

Results

We observed a statistically significant and negative correlation between IMD rank and the number of new referrals per CCG ($r = -0.27$, $P < 0.001$), but IMD was not correlated with case-load sizes ($r = -0.07$, $P = 0.33$). Online Fig. DS1 displays a scatterplot of recovery rates and IMD rank per each CCG area. Rank correlations were statistically significant ($r = 0.39$, $P < 0.001$) and excluding extreme outliers had a negligible influence on the correlation coefficient ($r = 0.38$, $P < 0.001$). Similarly, outlier cases did not significantly leverage regression slopes ($P = 0.54$), so the dummy variable was removed to attain a parsimonious regression equation including IMD rank as a single independent variable that predicted 15.3% of variance in outcome ($F = 37.76$, $d.f. = 1$, $P < 0.001$). Agreement between the benchmarking methods was low ($\kappa = 0.45$). The 50% benchmark classified a significantly greater proportion (72.5%) of CCG areas as 'underperforming' by comparison with the IMD-adjusted benchmark (43.1%; $\chi^2 = 60.66$, $d.f. = 1$, $P < 0.001$). The mean IMD-adjusted recovery rate for the whole sample was 45.2% (s.d. = 30.0, 95% CI 40.1–50.5).

Discussion

Consistent with the wider literature on psychiatric morbidity,⁷ higher numbers of referrals for psychological care were moderately associated with greater deprivation of local areas. However, no such relationship was found for deprivation and case-load sizes, which suggests that the 'inverse care law' applies in this context. This could be explained by the detrimental influence of deprivation on the likelihood of starting therapy after being referred,⁹ insufficient healthcare resources in services working in poor areas, or a combination of both. Furthermore, we found evidence of statistically significant associations between socioeconomic deprivation and psychological therapy outcomes. Poorer areas had lower average recovery rates. These associations were moderate in strength at an aggregate population level. Given that more detailed data were not accessible at the time of analysis,³ it is unclear whether these associations would remain significant after controlling for patient-level variables. A range of other factors including employment status,¹⁴ baseline symptom severity, functional impairment and variability between therapists are likely to influence clinical outcomes in psychological care.¹⁵

We found that the current 50% recovery target is classifying a significantly larger number of CCG areas as underperforming (an additional 29.4%) by comparison with the IMD-adjusted benchmark. It seems improbable that over 70% of IAPT services are attaining poor outcomes. The most recent national audit for psychological therapies¹⁶ reported aggregated effect sizes of $d = 0.88$ (interquartile range (IQR) = 0.78–1.00) for depression and $d = 0.98$ (IQR = 0.81–1.09) for anxiety measures across 119 IAPT services. These are large clinical effects by conventional standards, comparable with efficacy benchmarks derived from clinical trials.¹⁷ Although an IMD-adjusted benchmark may offer a more realistic estimate, we recognise that this raises a contentious political issue about whether it is appropriate to apply what may be perceived as 'lower standards' for some services and not others. A related and perhaps more palatable consideration is whether services working in more deprived areas should receive increased funding, commensurate with the increased psychiatric morbidity and disadvantages of their local populations. Overall, we caution against the wholesale application of unadjusted performance targets, and argue for

population-matched and risk-adjusted metrics such as those advanced in other areas of healthcare.¹⁸

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References

- Clark DM, Layard R, Smithies R, Richards DA, Suckling R, Wright B. Improving access to psychological therapy: initial evaluation of two UK demonstration sites. *Behav Res Ther* 2009; **47**: 910–20.
- Clark DM. Implementing NICE guidelines for the psychological treatment of depression and anxiety disorders: the IAPT experience. *Int Rev Psychiatr* 2011; **23**: 318–27.
- Health and Social Care Information Centre. Quarterly Improving Access to Psychological Therapies Data Set Reports, England – Final Q2 2014–15 summary statistics and related information, Experimental statistics. HSCIC 2015 (<http://www.hscic.gov.uk/catalogue/PUB16739>).
- Department of Health. *Closing the Gap: Priorities for Essential Change in Mental Health*. Department of Health, 2014 (www.gov.uk/government/uploads/system/uploads/attachment_data/file/281250/Closing_the_gap_V2_-_17_Feb_2014.pdf).
- Gyani A, Shafran R, Layard R, Clark DM. *Enhancing Recovery Rates in IAPT Services: Lessons from Analysis of the Year One Data*. University of Reading, London School of Economics and Kings College London, 2011.
- Payne RA, Abel GA. UK indices of multiple deprivation – a way to make comparisons across constituent countries easier. *Health Stat Q* 2012; **53**: 1–16.
- Muntaner C, Eaton WW, Miech R, O'Campo P. Socioeconomic position and major mental disorders. *Epidemiol Rev* 2004; **26**: 53–62.
- Saxon D, Fitzgerald G, Houghton S, Lemme F, Saul C, Warden S, et al. Psychotherapy provision, socioeconomic deprivation, and the inverse care law. *Psychother Res* 2007; **17**: 515–21.
- Grant K, McMeekin E, Jamieson R, Fairful A, Miller C, White J. Individual therapy attrition rates in a low-intensity service: a comparison of cognitive behavioural and person-centred therapies and the impact of deprivation. *Behav Cogn Psychother* 2012; **40**: 245–9.
- Hawley LD, Leibert TW, Lane JA. The relationship between socioeconomic status and counseling outcomes. *Prof Couns* 2014; **4**: 390–403.
- Falconnier L. Socioeconomic status in the treatment of depression. *Am J Orthopsychiatry* 2009; **79**: 148–58.
- Kroenke K, Spitzer RL, Williams JB. The PHQ-9: validity of a brief depression severity measure. *J Gen Intern Med* 2001; **16**: 606–13.
- Spitzer RL, Kroenke R, Williams JB, Lowe B. A brief measure for assessing generalized anxiety disorder: the GAD-7. *Arch Intern Med* 2006; **166**: 1092–7.
- van der Lem R, Stamsnieder PM, van der Wee NJA, van Veen T, Zitman FG. Influence of sociodemographic and socioeconomic features on treatment outcome in RCTs versus daily psychiatric practice. *Soc Psychiatry Psychiatr Epidemiol* 2013; **48**: 975–84.
- Firth N, Barkham M, Kellett S, Saxon D. Therapist effects and moderators of effectiveness and efficiency in psychological wellbeing practitioners: a multilevel modelling analysis. *Behav Res Ther* 2015; **69**: 54–62.
- Royal College of Psychiatrists. *Second Round of the National Audit of Psychological Therapies for Anxiety and Depression (NAPT)*. Healthcare Quality Improvement Partnership, 2013.
- Delgadillo J, McMillan D, Leach C, Lucock M, Gilbody S, Wood N. Benchmarking routine psychological services: a discussion of challenges and methods. *Behav Cogn Psychother* 2014; **42**: 16–30.
- Asimakopoulos G, Al-Ruzzeh S, Ambler G, Omar RZ, Punjabi P, Amrani M, et al. An evaluation of existing risk stratification models as a tool for comparison of surgical performances for coronary artery bypass grafting between institutions. *Eur J Cardio-Thorac* 2003; **23**: 935–42.

