

Evaluating the Effectiveness of a Primary Mental Health Care Service on Outcomes for Common Mental Disorders: Modelling the Effect of Deprivation

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Introduction

- Depression and anxiety disorders have been characterised as the most prevalent and debilitating common mental health problems (CMHPs) that mainly afflict adults (McManus et al., 2016; NICE, 2011).
- Evidence-based psychological therapies delivered in primary mental health care (such as the IAPT initiative) have been recognised as effective in treating CMHPs (De Lusignan et al., 2012; Clark et al., 2009).
- Outcomes for the effectiveness of primary mental health care services for adults in Scotland remain limited.
- High levels of socio-economic deprivation can significantly predict high levels of psychological distress (Cientanni et al., 2017).
- Socio-economically deprived populations may also encounter more barriers in accessing and utilising psychological therapies (Health Scotland, 2018).

Research Aims

- We evaluated the accessibility and effectiveness of the redesigned NHS Grampian Adult Primary Care Psychological Therapies service.
- The main aims of the research were threefold:
 - I. Establish clinical and demographic characteristics of individuals accessing the service.
 - II. Evaluate the impact of service delivery on post-treatment outcomes
 - III. Model the impact of baseline characteristics such as social deprivation on access to, and effectiveness of the service.

Method

- A pre-post study design was adopted with the objective of measuring patient improvement in symptomatology post-intervention
- The sample ($N = 1607$) comprised of adult patients referred to the service by GPs over a 19-month period (November 2016 – June 2018). The mean age was = 35.47 years, ($SD = 14.17$; Range = 16-86 years).
- Patients completed clinical outcome measures at pre-treatment and post-treatment: the PHQ-9, GAD-7 and WSAS. Individual socio-economic deprivation was measured by the Scottish Index of Multiple Deprivation (SIMD).
- Intention-to-Treat analyses were conducted ($n = 356$). T-tests, McNemar's test and multiple linear regression were performed.

Results

- In terms of sample demographics, 65.38% of the patients referred to the service were female and 34.62% were male.
- Patients in the 65+ years age group were under-represented, with less patients referred compared to that expected from the GP surgery population. 19.1% of patients were experiencing physical health difficulties, and 39.3% of patients reported engaging in previous interventions.
- The exact proportion of patients on prescribed medication significantly reduced from 52% at pre-treatment to 39% at post-treatment; $\chi^2(1) = 188.66, p < .001, g = 0.42$.
- Paired samples t-tests indicated a significant reduction in mean PHQ-9 and GAD-7 scores from pre-treatment to post-treatment; $p < .001, d = 0.90$ (PHQ-9), $d = 0.93$ (GAD-7).
- There was a significant reduction in the proportion of patients scoring within the clinical range at post-treatment; $p < .001, g = 0.48$ (PHQ-9), $g = 0.45$ (GAD-7). Increased social functioning was also identified overall: $p < .001, d = 1.32$. A large proportion of patients demonstrated an overall reliable improvement in symptomatology.
- The regression models containing all predictor variables for post-treatment PHQ-9 and post-treatment GAD-7 scores were significant (see Tables 1 and 2 respectively).

Table 1. The significant predictor variables for post-treatment PHQ-9 scores.

Independent Variables	β	p	R ² Change
Pre-treatment PHQ-9 Scores	.52	.000***	.294***
Number of Treatment Appointments	-.12	.011*	.013*
Number of Appointments DNA or Cancelled	.14	.004**	.016**
R ² = .324 Note: ***p < .001, **p < .01, *p < .05			

Table 2. The significant predictor variables for post-treatment GAD-7 scores.

Independent Variables	β	p	R ² Change
Pre-treatment GAD7 Scores	.36	.000***	.287***
Pre-treatment PHQ9 Scores	.20	.003**	.019**
Number of Treatment Appointments	-.11	.013*	.012*
Number of Appointments DNA or Cancelled	.14	.004**	.016**
R ² = .335 Note: ***p < .001, **p < .01, *p < .05			

- The most socially deprived patients (illustrated by SIMD Decile 1) were under-represented and less likely to be referred by their GP surgery to the service (see Figure 1).

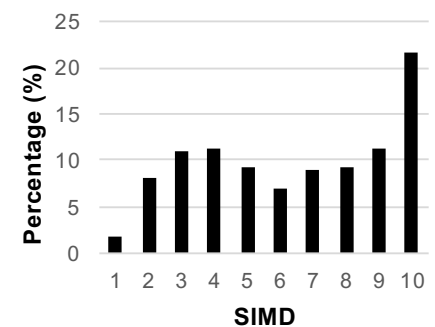


Figure 1. The overall percentage of patients referred by GP surgeries in each SIMD decile category.

- When limiting analyses to patients from SIMD deciles 1-4 ($n = 95$), the results were similar and arguably stronger than the whole sample on the key parameter of clinical effectiveness.

Discussion

- The findings indicated significant, large pre-post treatment effects for reductions in anxiety and depression symptoms; and overall increased social functioning.
- Males, older adults, and individuals with comorbid physical health conditions were under-represented in the sample compared to population estimates.
- Individuals from areas of higher social deprivation were also under-represented, but those who did receive treatment reported clinical improvements consistent with the overall sample.
- These data demonstrate the effectiveness of an IAPT-informed psychological therapies approach in Scotland. The findings also reveal the utility of high-quality routine data capture in the NHS to inform service standards, and future development priorities, in line with the Mental Health Strategy.
- Further work is required to improve equitable access to primary mental health care.

References

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