Research report

Predictors of patient non-attendance at Improving Access to Psychological Therapy services demonstration sites

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ABSTRACT

Background: Improving Access to Psychological Therapy (IAPT) services have increased the number of people with common mental health disorders receiving psychological therapy in England, but concerns remain about how equitably these services are accessed.
Method: Using cohort patient data ($N=363$) collected as part of the independent evaluation of the two demonstration sites, logistic regression was utilised to identify socio-demographic, clinical and service factors predictive of IAPT non-attendance.
Results: Significant predictors of IAPT first session non-attendance by patients were: lower non-risk score on the Clinical Outcomes in Routine Evaluation-Outcome Measure (CORE-OM); more frequent thoughts of "being better off dead" (derived from the CORE-OM); either a very recent onset of common mental health disorder (1 month or less) or a long term condition (more than 2 years); and site.
Limitations: The small sample and low response rate are limitations, as the sample may not be representative of all those referred to IAPT services. The predictive power of the logistic regression model is limited and suggests other variables not available in the dataset may also be important predictors.
Conclusions: The clinical characteristics of risk to self, severity of emotional distress, and illness duration, along with site, were more predictive of IAPT non-attendance than socio-demographic characteristics. Further testing of the relationship between these variables and IAPT non-attendance is recommended. Clinicians should monitor IAPT uptake in those they refer and implement strategies to increase their engagement with services, particularly when referring people presenting with suicidal ideation or more chronic illness.

1. Introduction

1.1. Background

Improving Access to Psychological Therapy (IAPT) services were introduced in 2006 to address the limited availability of psychological therapy for people with common mental health disorders (CMHD) in England (Layard, 2005; for a contextual account, see Layard and Clark (2014)). The rationale for setting up this initiative was based on the disparity between the high prevalence and economic burden of CMHD disorders in the UK, in the context of evidence that specific psychological interventions were both clinically and cost effective with these conditions (Layard et al.,

2007). National Institute for Health and Care Excellence (NICE) guidelines described effective psychological therapy treatments and recommended that they should be available to everyone with CMHD apart from those with the very mildest or most recent onset of problems. However, insufficient services were available, resulting in unnecessary distress to a large proportion of the UK population (Centre for Economic Performance, 2006). The difficulties of accessing psychological therapy were highlighted further by the 2007 English adult psychiatric morbidity household survey finding fewer than 10% of people with CMHD received psychological therapy and only 5% an evidence-based psychological therapy (McManus et al., 2009). It was argued that investment in psychological therapy would pay for itself through reduced use of National Health Service (NHS) services and incapacity benefit payments (Centre for Economic Performance, 2006).

Since its inception, IAPT has trained over 3000 practitioners to deliver NICE-recommended psychological therapies (Department

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of Health, 2012). The 1-year evaluation of the IAPT rollout reported a median recovery rate of 42% with a range across the 32 sites from 24% to 57% (Gyani et al., 2013). The report on the first million people receiving treatment in IAPT services cited recovery rates to be over 45% (Department of Health, 2012). Studies have suggested that IAPT is probably cost effective (Department of Health, 2012; Mukuria et al., 2013), reducing use of some other health services (de Lusignan et al., 2012) and, it is claimed, moving IAPT users off benefits and into work (Clark et al., 2009; Department of Health, 2012).

1.2. Improving Access to Psychological Therapy (IAPT): the issue of access

Despite the achievements of the IAPT initiative, questions remain about how equitably the service is being used; therefore improving equitable access has become a focus for service improvement (Department of Health, 2012). Studies have found various groups underrepresented in IAPT services: men (Glover et al., 2010; de Lusignan et al., 2012; Parry et al., 2011), older people (Glover et al., 2010; de Lusignan et al., 2012; Parry et al., 2011) people from some minority ethnic groups (Glover et al., 2010; de Lusignan et al., 2012; Parry et al., 2011) and people presenting with certain anxiety disorders (Clark, 2011). All IAPT services monitor the age, gender, ethnicity, deprivation, religion/belief, sexual orientation, physical health, diagnosis, illness severity, employment, and duration of current illness episode of their service users. However, evaluations of IAPT services using routinely collected data do not include all those referred to IAPT, and have found data to be incompletely recorded, limiting validity (Glover et al., 2010). Other IAPT evaluations of equity of access are limited by only investigating differences within IAPT attenders (Clark, 2011; Gyani et al., 2009, 2013).

Where comparisons with non-attenders have taken place, differences in attendance rates have been described in relation to only a small number of variables and predictive analyses have not been carried out (de Lusignan et al., 2012; Mukuria et al., 2013; Parry et al., 2011). Studies of equity of access to IAPT have also tended to focus on more stable patient characteristics such as age, ethnicity and gender; whereas one of the key reviews into equity of therapy use found a wider range of more transient characteristics influential on attendance (Clarkin and Levy, 2004). Indeed, research into non-IAPT psychological therapy has found clinical severity (Bebbington et al., 2000; Fleury et al., 2012; Simon and Ludman, 2010), risk (Burns et al., 2003; Sales, 2003), relationship status (Briffault et al., 2008; Chen and Rizzo, 2010; Estupiñá et al., 2012) and caring responsibilities (Issakidis and Andrews, 2004) among the variables affecting attendance.

To address these limitations in establishing how equitably IAPT has increased access to psychological therapy, we analysed socio-demographic and clinical data on patients referred to the service by their GP and, whether or not they accessed IAPT services, thereby enabling us to identify predictors of non-attendance. We used data from a cohort study that formed part of an independent evaluation of the two IAPT demonstration sites (Parry et al., 2011). The data were chosen as they contained information on a wider range of socio-demographic and clinical factors than previous analyses had used and enabled us to investigate predictors of first session non-attendance (hereafter referred to only as non-attendance). In addition, the data quality was high (over 95 per cent complete for 16 out of 19 variables). Accordingly, the aim of the current study was to identify which socio-demographic and clinical factors were predictive of non-attendance in those referred to IAPT by their GP in the IAPT demonstration sites.

2. Method

2.1. Design and procedures

This study was a secondary analysis of cohort study data collected as part of a United Kingdom National Institute of Health Research funded evaluation of the two IAPT demonstration services: Doncaster and Newham (Parry et al., 2011). We matched IAPT service use data with participants' self-report socio-demographic and clinical data, obtained by postal questionnaires.

Recruitment packs were mailed out to potential participants by GP practices as soon as possible after participants had been seen by GPs or identified from patient records (as having been seen by GPs in the last four weeks). Reminder letters were sent two weeks later. Recruitment packs contained a covering letter from the GP practice, invitation letter from the University conducting the study, participant information sheet, consent form, questionnaire consisting of a battery of baseline outcome measures and socio-demographic questions, offer of a £10 voucher for returning the questionnaire, and a prepaid response envelope. Questionnaires were to be completed as soon as possible after referral to IAPT services. However, as participants were responsible for returning their questionnaires and there was variation in waiting times for IAPT services, timings between seeing GP, completing questionnaires and seeing IAPT services were inconsistent.

UK research governance procedures were adhered to; all aspects of the study (including capacity for consent and permission to use secondary analysis of data) were subject to ethical scrutiny through the regional Research Ethics Committee (REC ref: 07/Q1205/54). Written consent was obtained from both GP practices and individual participants. Whether or not participants chose to take part in the evaluation did not affect the treatment they received and was not known to those providing treatment.

2.2. The IAPT services

The IAPT service model is described extensively elsewhere (e.g., Clark et al., 2008). The current study is based on the first 3 years of the first two IAPT services, Doncaster (South Yorkshire) and Newham (East London) which were set up in 2006 to demonstrate the IAPT service model. The services differed slightly, in Doncaster patients were contacted by telephone and offered a face to face consultation in a GP surgery or other community location. The majority (90.0%) of referrals came via GPs and most people received low intensity interventions (93.2% initially allocated to guided self-help), with very few people receiving one-to-one CBT. The Newham service specifically targeted groups traditionally under-served by psychological therapy. It tried to make all materials culturally appropriate and available in multiple languages, up to five phone calls and three letters were provided to each person referred, to encourage engagement. Whilst the majority of referrals still came from GPs (65.6%), many people (22.7%) self-referred to the service. Similar numbers of people were assigned to step 2 (mostly consisting of guided self-help) (47.7%) and step 3 (one-to-one CBT) (45.6%) interventions.

2.3. Sample

All GP practices in Doncaster and Newham were invited to take part in this study. Of the 70 GP practices, 34 (48.6%) agreed. Participating GPs were asked to identify patients who met study criteria: being of working age (16–64 years), newly presenting (or re-presenting) with anxiety or depression in the last four weeks, and who they had referred to the IAPT service. These criteria set as anxiety and depression were the focus of IAPT referrals; other diagnoses were not excluded either from IAPT or this study, with

the exception of diagnoses of OCD and PTSD in Doncaster IAPT services. A total of 365 people responded (response rate 14.0%): 287 from Doncaster (response rate 14.4%) and 76 from Newham (response rate 12.8%). Two people from Doncaster were excluded, one due to death and another because they completed the questionnaire with reference to the wrong time period. Our final sample therefore comprised 363 people.

Our sample was 90.7% white, 69.7% female with a mean (SD) age of 41.1 (14.4) years and mean (SD) level of deprivation of 35.8 (15.6) (Index of Multiple Deprivation, IMD, 2007, Noble et al., 2008). Of the 363 respondents, 23.4% were unemployed, 52.1% living with a partner, with a mean (SD) of 0.72 (1.0) children and 0.13 (0.4) dependent adults in their household. Our sample had a mean (SD) duration of illness (anxiety, stress or depression) of 8 years and 8 months (118.3 months) since first onset and 1 year 9 months (48.9 months) since onset of most recent episode.

In order to investigate the representativeness of the sample, we compared clinical and socio-demographic details of our sample with three other samples; these were: 1) referrals received by IAPT demonstration sites in their first 3 years (Parry et al., 2011); 2) a cohort study sample comprising everyone with common mental health problems registered to 10 GP practices in Doncaster and 10 GP practices in Newham (de Lusignan et al., 2011) and 3) a cohort study sample from Wakefield, Barnsley, Hackney and City that followed the same recruitment and data collection procedures as our sample. It was originally used as the closest matched non-IAPT sites as part of the larger scale IAPT demonstration sites evaluation (Parry et al., 2011). Table 1 presents the data available for comparison. It shows the samples were reasonably similar in terms of age (mean range 38–44 years); IMD, 2007 level of deprivation scores of 35.8 (our sample, Doncaster 34.0; Newham, 42.6) and 37.6 (de Lusignan et al., 2011); all symptom measure scores, PHQ-9 (mean range 13.7–16.4), GAD-7 (mean range 11.9–13.9) CORE-OM (mean range 19.0–20.5) and gender, (65–75% female in Doncaster and matched sites, 61% in Newham) except City and Hackney (81% female). The ethnicity of the sample was similar in Doncaster and its matched sites (98.9–99.6% white), but more variable in Newham and its matched sites (48–67% white).

Post-analysis, we discovered that some completed questionnaires (95 out of 363–26.2%) were not received by the University until after participants had been in contact with IAPT services. In many cases questionnaires will have been completed before IAPT attendance, but unfortunately we were unable to identify which of these participants had attended IAPT prior to questionnaire completion. Consequently, previous service use data was excluded from the main analysis as unreliable. However, we replicated the analysis on a subsample ($n=268$) consisting of those we were certain had completed questionnaires prior to IAPT attendance.

2.4. Measures

Patients completed a battery of outcome measures set out in the mandatory minimum IAPT data set. The present study employed two of these measures:

Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001): a nine-item measure of the severity of depressive symptoms. Scores range between 0 and 27, classifying depression as minimal (1–4), mild (5–9), moderate (10–14), moderately severe (15–19), or severe (20–27). Scores of 10 or more represent clinical "caseness". Kroenke et al. (2001) found internal reliability of 0.89 and test–retest reliability was 0.84.

Generalised Anxiety Disorder (GAD-7) (Spitzer et al., 2006): a seven-item measure of the severity of generalised anxiety disorder. Scores range between 0 and 21, classifying anxiety as minimal (0–4), mild (5–9), moderate (10–14) or severe (15–21). IAPT uses a clinical cut-off score of 8 to identify "caseness" on GAD-7 (Glover et al., 2010). Spitzer et al., 2006 reported 0.92 for internal consistency and 0.83 for test–retest reliability.

In addition, we used a generic measure of psychological distress: CORE-OM (Barkham et al., 2001; Evans et al., 2002): this is a 34-item measure of psychological distress comprising well-being (4 items), problems (12 items), functioning (12 items), and risk (6 items) domains. Psychological distress is classified as non-clinical (0–9), mild (10–14), moderate (15–19), moderately severe (20–24), or severe (25+) out of a possible total of 40. "Caseness" is defined as a score of 10 or more (Barkham et al., 2006). In order to examine the contribution of risk and non-risk items separately, we used two indices: the CORE-NR (non-risk) score (wellbeing, problems, and functioning), and the risk domain score. Each of the six risk items was analysed individually, they are scored on a

Table 1
Socio-demographic and clinical details: comparison between our study sample, three year IAPT referral data (Parry et al., 2011), IAPT matched site cohort study sample (Parry et al., 2011) and CMHD cohort study sample (de Lusignan et al., 2011).

Variable	Our study sample		IAPT referrals (1/4/2006–30/4/2009)		Matched sites		CMHD cohort study
	$n=287$ Doncaster	$n=76$ Newham	$n=10,297$ Doncaster	$n=3371$ Newham	$n=114$ Wakefield and Barnsley	$n=50$ City and Hackney	$n=12,143$ Doncaster and Newham
Gender							
Male	27.9%	39.5%	34.9%	38.9%	25.4%	18.8%	32.6%
Female	72.1%	60.5%	65.1%	61.1%	74.6%	81.2%	67.4%
Ethnicity							
White	98.9%	56.6%	99.6%	48.1%	99.4%	66.7%	Not reported as 35.2%
Non-white	1.1%	43.4%	0.4%	51.9%	0.6%	33.3%	had no ethnicity recorded
Age							
Mean (SD)	41.7 (14.9)	38.8 (12.0)	38.2 (13.5)	37.7 (12.3)	40.5 (13.5)	42.8 (13.6)	43.6 (14.3)
Level of deprivation							
Mean IMD 2007 score	34.0	42.6	Not available	Not available	Not available	Not available	37.6
Baseline score							
PHQ-9 mean (SD)	16.4 (7.1)	13.7 (7.1)	15.8 (6.45)[a]	14.7 (6.27)[a]	15.1 (7.2)	14.8 (5.6)	Not available
GAD-7 mean (SD)	13.8 (5.7)	11.9 (5.5)	13.7 (5.35)[a]	12.5 (5.39)[a]	13.3 (5.8)	12.6 (4.6)	Not available
CORE-OM mean (SD)	20.5 (7.9)	19.0 (7.7)	Not available	Not available	19.6 (8.1)	20.0 (6.8)	Not available

[a] Severity recorded only from those who had at least one contact.

Likert scale of risk: none at all (0) occasional (1) sometimes (2) often (3) most or all of the time (4). The overall CORE risk score, which is the mean score of these six items multiplied by 10, was also calculated. Test–retest reliability has been calculated as 0.90 for the complete measure, 0.91 for the non-risk items and 0.60 for risk items (Barkham et al., 2001).

To assess deprivation, we used the Index of Multiple Deprivation (IMD 2007) derived from postcodes (Noble et al., 2008). This consists of seven domains of deprivation, each of which is considered statistically robust: income; employment; health and disability; education skills and training; barriers to housing and services; living environment; and crime at small area level. Scores are between 0 and 100, with higher scores indicating a higher level of deprivation (Noble et al., 2008).

2.5. Data analysis

Data analysis was carried out using IBM SPSS statistics version 19 (IBM Corp., 2010). Initial analysis compared those who did and did not access IAPT using appropriate parametric and non-parametric tests on all independent variables. These were age, gender, level of deprivation, ethnicity, relationship status, employment status, the number of dependent children and/or adults in household, intake severity score on the clinical outcome measures (PHQ-9, GAD-7, CORE-NR, each CORE risk item), duration of current illness episode, time since initial illness onset, which IAPT site referred to (Doncaster or Newham) and in the subsample-primary, secondary, NHS and private mental health care in the previous 4 months.

Logistic regression, using the backwards stepwise likelihood ratio method, was used to establish which, if any variables predicted non-attendance at IAPT. Variables were considered eligible for inclusion in the logistic regression model on the basis of two criteria: if they showed statistically significant ($p < 0.05$) differences between those who did and did not attend IAPT (details in Table 2), or if there was strong evidence from previous research of a potential effect on therapy uptake. The variables of age, gender, level of deprivation (IMD, 2007 score), ethnicity (white or non-white), and intake severity scores on all clinical measures were therefore included on the basis of previous research.

Interactions between significant variables were also tested for significance in the model. Collinearity was assessed by examining Tolerance, Variance Inflation Factor (VIF) and Eigenvalues. The amount of variation in the dependent variable explained by the model was established using Nagelkerke R^2, while the influence of individual cases was considered using Cook's distance, DFBeta and leverage scores. The goodness-of-fit of the model was assessed using a Receiver Operating Characteristic (ROC) curve.

3. Results

3.1. Intake severity of participants

The mean (SD) intake severity score for PHQ-9 was 15.9 (7.2), while for GAD-7 it was 13.5 (5.7). Using the clinical cut-offs of 10 for PHQ-9 and 8 for GAD-7, the proportion of patients reaching clinical severity at intake was 83.5% and 79.3% respectively. The mean (SD) CORE-OM score was 20.0 (7.8), with 71.3% scoring above the clinical cut-off of 10 at intake. For CORE non-risk and CORE risk the means (SD) were 23.1 (8.4) and 6.5 (8.4) respectively.

3.2. Differences between IAPT attenders and non-attenders

Of the 363 respondents in the sample, a total of 173 (47.7%) did not attend an IAPT service, despite being referred by their GP. Initial comparisons found attenders and non-attenders differed significantly ($p < 0.05$) on six variables. Three of these were CORE risk items as follows: people who had greater risk of self-harm, had more frequent thoughts of self-harming, or thoughts "that I would be better off dead", attended IAPT services less. The illness duration of attenders and non-attenders also differed in that people with a very recent onset (1 month or less) of stress, depression or anxiety, or with a long term condition (more than 2 years) were less likely to attend IAPT services. The site variable, of being referred to

Table 2
Numbers (no.), percentages (%) and Pearson p Values of people in categories where there was a significant ($p < 0.05$) difference in those who did not and did attend IAPT.

Variable	Did not attend IAPT service (n=173)		Attended IAPT service (n=190)		Pearson p Values from chi square tests
	No.	%	No.	%	
Site:					
Doncaster	145	50.5	142	49.5	
Newham	28	36.8	48	63.2	$p=0.034$
Relationship status:					
Single	45	46.9	51	53.1	
Living together	79	41.8	110	58.2	
Previously living together	43	63.2	25	36.8	$p=0.011$
Number of months since start of most recent feelings of anxiety, stress, or depression:					
0–1	26	54.2	22	45.8	
>1–24	97	42.2	133	57.8	
25+	32	60.4	21	39.6	$p=0.031$
Thought of hurting myself:					
Not at all/ occasionally	117	44.8	144	55.2	
Sometimes/often/most or all of the time	48	55.2	39	44.8	$p=0.008$
Hurt myself physically or taken dangerous risks with my health:					
Not at all/ occasionally	137	45.2	166	54.8	
Sometimes/often/most or all of the time	30	62.5	18	37.5	$p=0.029$
Thought it would be better if I were dead:					
Not at all/ occasionally	99	42.7	133	57.3	
Sometimes/often/most or all of the time	69	57.0	52	43.0	$p=0.016$

Doncaster IAPT services (compared to Newham services) was associated with lower IAPT attendance. Attenders and non-attenders also differed on one socio-demographic characteristic, namely those who had previously lived with a partner (i.e. divorced, separated, or widowed) were less likely to take up their IAPT referral (compared with those who described themselves as single or currently cohabiting). Further details on these variables and their association with attendance are presented in Table 2.

3.3. Predictors of IAPT attendance

The initial logistic regression model yielded four variables that had a statistically predictive effect at the $p < 0.05$ level. These were two clinical severity measures: CORE-NR scores (uncentred) and greater frequency of the CORE risk item, thoughts "that I would be better off dead", along with site and duration of current illness episode. Interactions between these four variables were tested for significance, in turn. None were found to be significant in the final model, presented in Table 3.

The model indicated that people who had more frequent thoughts "that I would be better off dead" were nearly two and a half times more likely not to take up the referral than people who never or only occasionally had such thoughts, with an odds ratio (OR) and 95% confidence interval of 2.43 (1.31–4.50). By contrast, patients with higher CORE scores (excluding the risk items) were more likely to attend IAPT services (OR, 0.63, 95% CI 0.44–0.90). Each one point increase on CORE-NR score reduced the odds of not attending the first appointment by a factor of 0.63. People with a current illness episode of more than 1 month and less than 2 years were more likely to attend their first appointment; their non-attendance was less than half that of people with an illness duration of 1 month or less or more than 2 years (OR, 0.47, CI 0.28–0.79). People referred to the Newham site were more likely to attend their first appointment; their non-attendance was less than a half that of people referred to Doncaster (OR, 0.49, CI 0.26–0.92). Examination of the residuals showed that the model was not unduly affected by outliers (Cooks and DFBeta scores < 1, leverage scores 0–1). The model explained 8.4 per cent of the variance in IAPT uptake (Nagelkerke R^2), correctly classifying 60.8

per cent of cases. No issues with collinearity were indicated (Tolerance > 0.1, VIF < 10, Eigenvalues range 0.038–3.364). The ROC curve measuring the goodness of fit of the model had an area under the curve (AUC) of 0.65 (SE 0.031) (95% CI: 0.59–0.71), indicating that although the model was able to discriminate, its explanatory power fell below the level (0.70) considered "acceptable" (Hosmer and Lemeshow, 2000).

The model, excluding the 95 patients who might potentially have attended IAPT prior to questionnaire completion, presented in Table 4, yielded only two variables (and no significant interaction), that had a predictive effect at the $p < 0.05$ level. These were the same clinical severity measures as the whole sample model: CORE-NR scores (OR, 0.56, 95% CI: 0.37–0.85) and the CORE risk item, thoughts "that I would be better off dead" (OR, 3.52, 95% CI: 1.69–7.32). Service use variables were not significant in the model. Examination of the residuals showed that the model was not unduly affected by outliers and had no issues with collinearity. The model explained 7.0 per cent of the variance in IAPT uptake (Nagelkerke R^2), correctly classifying 62.8 per cent of cases. Again the ROC curve indicated a less than "acceptable" explanatory power with an AUC of 0.64 (95% CI: 0.57–0.71).

4. Discussion

Three clinical characteristics and site were found to discriminate between those who attended the IAPT service and those who did not take up the referral from their GP. Attendance was less likely in those who had 1) more frequent thoughts "that I would be better off dead", 2) a lower CORE-NR score, 3) a duration of current illness episode of either more than 2 years, or 1 month or less, and 4) been referred to Doncaster's IAPT service as opposed to Newham's. By analysing a wider range of socio-demographic and clinical factors than were included in other IAPT studies and using more complete data, we were able to identify variables predictive of IAPT first session non-attendance. However, results suggest that other variables not included in this study may also be important predictors.

Table 3
Logistic regression model to predict non-uptake of IAPT (whole sample, $n=363$).

Variable	Categories	B (SE)	Exp b (OR)	95% CI for exp (b)		Significance
				Lower	Upper	
CORE-OM:non-risk score		−0.460 (0.180)	0.631	0.444	0.898	0.011
CORE-OM:risk item: "Thought it was better if I was dead"	None or occasionally	Baseline				
	Sometimes, often, most of the time	0.887 (0.315)	2.428	1.309	4.504	0.005
Recent episode of anxiety, stress or depression	Recent episode of illness $</=1/>24$ months	Baseline				
	Recent episode of illness > 1–24 months	−0.754 (0.267)	0.471	0.279	0.794	0.005
Site	Doncaster	Baseline				
	Newham	−0.705 (0.319)	0.494	0.264	0.924	0.027
Constant		1.282 (0.461)	3.604			0.005

Table 4
Logistic regression model to predict non-uptake of IAPT (subsample, $n=268$).

Variable	Categories	B (SE)	Exp b (OR)	95% CI for exp (b)		Significance
				Lower	Upper	
CORE-OM:non-risk score		−0.572 (0.210)	0.564	0.374	0.851	0.006
CORE-OM:risk item: "Thought it was better if I was dead"	None or occasionally	Baseline				
	Sometimes, often, most of the time	1.257 (0.374)	3.516	1.689	7.318	0.001
Constant		1.524 (0.459)	4.589			0.001

First session non-attendance was higher in our study (48%) than in other IAPT (19–42%) (Glover et al., 2010; Parry et al., 2011) and non-IAPT (15–23%) (Issakidis and Andrews, 2004; Self et al., 2005; Simon and Ludman, 2010; Zivin et al., 2009) studies. However, methodological differences between studies limit the value of these comparisons. For example, analysis of IAPT service data only includes those who had both a referral date and first appointment date recorded, in the Doncaster sample from the original IAPT evaluation; this excludes 31.2% of referrals (Parry et al., 2011). The high non-attendance rates are a cause for concern, as non-attendance potentially leads to psychological and sometimes physical harm, as well as wasting resources (Britton et al., 2011; Issakidis and Andrews, 2004; Killaspy et al., 2000; Self et al., 2005).

Age, gender and ethnicity did not predict IAPT non-attendance in a multivariate logistic model, despite having been associated with lower IAPT uptake in other analyses (Glover et al., 2010; de Lusignan et al., 2012; Parry et al., 2011). This difference may be due to the wider range of variables available in our study, the use of multivariate analysis to identify significant predictors of outcome and because we focussed solely on first session non-attendance. Whilst it is a positive reflection on IAPT that we did not find traditionally under-served groups, such as men and those from ethnic minority groups, predictive of first session non-attendance, monitoring of these groups should continue as there may be other stages of the help-seeking process where these factors influence attendance.

All the variables we found predictive of IAPT non-attendance have also been found predictive of or associated with psychological therapy non-attendance in non-IAPT studies, although not consistently. Many other studies have found lower illness severity (Bebbington et al., 2000; Chen and Rizzo, 2010; Fleury et al., 2012; Harris et al., 2011; Issakidis and Andrews, 2002; The MaGPle Research Group, 2006; Simon and Ludman, 2010), and in some, risk to self (Zivin et al., 2009), site (Simon and Ludman, 2010) and illness duration, both longer (Sales, 2003; Villeneuve et al., 2010) and shorter (Harris et al., 2011) predictive of, or associated with, psychological therapy non-attendance.

When combined, our predictive variables may suggest that there are two different groups of patients at higher risk of IAPT first session non-attendance: those with more severe or chronic illnesses, particularly with suicidal ideation, and those with less severe distress or recent onset of mental health problems. Those with less emotional distress (lower CORE-NR scores) and short illness durations may not have attended IAPT as they may not feel themselves to be in need of psychological therapy, as others have found for this group (Issakidis and Andrews, 2002). Whilst NICE guidelines do not recommend psychological therapy for less severe illnesses, lower intensity interventions offered by IAPT, such as guided self-help or computerised CBT, are recommended (National Collaborating Centre for Mental Health, 2011). Therefore, exploring barriers to attendance, motivational interviewing and providing more detailed information about therapy, at the point of referral may increase attendance, as has been found to be the case in non-IAPT studies (Oldham et al., 2012). For some, GP monitoring and provision of information about self-referral may suffice.

In contrast, both higher risk and longer illness duration could be considered indicators of a more severe and chronic illness. Whilst it is unclear why risk to self was more predictive of non-attendance than symptom measure scores, it has been speculated that people presenting with risk are less likely to engage because they may well feel more hopeless and ambivalent about the chances of treatment success, have less available energy to engage in treatment, and experience or perceive more barriers to attendance (Britton et al., 2011). This is clinically significant given that to prevent harm, guidelines recommend that people who present with suicidal ideation and high levels of hopelessness should be assessed and managed whilst waiting for specialist support (National Collaborating Centre for Mental Health, 2011) and our findings suggest they are less likely to attend IAPT. GPs should therefore consider implementing strategies found to increase attendance in those presenting with suicidal risk, such as motivational interviewing (Britton et al., 2011). Although risk issues have not been explored in previous IAPT studies, clinical complexity has been tentatively associated with repeated IAPT non-engagement (Cairns, 2014). Cairns (2014) suggested that those presenting with greater clinical complexity may be less likely to engage in telephone based and other lower intensity interventions and more likely to engage in face to face high intensity interventions, which are the recommended treatment for those with more severe or chronic illness (National Collaborating Centre for Mental Health, 2011). A literature review of stepped care in psychological therapies also cautioned against implementing lower intensity treatments inappropriately (Bower and Gilbody, 2005). Therefore, following the IAPT pathway of telephone contact and starting with low intensity interventions before "stepping-up" may have been a disincentive to attending for those presenting with risk or more chronic illness. Cairns (2014) suggested that people referred to IAPT should receive a thorough assessment and that those presenting with clinical complexity should be referred directly to high intensity interventions; our findings support this.

Newham has been found to have higher rates of engagement than Doncaster in other IAPT studies, but this has been largely attributed to its successful self-referral scheme (e.g., Clark, 2011). Our study, focussing only on GP referrals, suggests that other factors such as Newham's more persistent engagement process or more extensive high intensity interventions may have been influential.

4.1. Limitations

This study has several limitations. First, there was a low response rate yielding a small sample. This limits power and the conclusions that can be drawn in terms of representativeness. Whilst the similarities in our sample comparisons imply that the selection bias from filling in the questionnaire was small, it is possible that unidentifiable bias exists within it. As we have no information about non-attenders who did not complete the questionnaires, we do not know if there are differences, possibly systematic differences, between those who completed the measures and those who did not. The post-analysis discovery that some people may have completed questionnaires after attending IAPT, led to the removal of the service use variable from analysis and may have biased our findings. Whilst the replicated analysis, excluding those affected, found the same clinical severity variables statistically predictive, other variables were no longer so. The goodness of fit of both models was under the recommended level, suggesting that some potentially important predictors were not present in the analysis. Also, although the method of analysis-logistic regression, identifies which baseline variables are associated with, and statistically predictive of, non-attendance, it is not possible to infer that they caused it (Tabachnick and Fidell, 2007). Generalisability from our findings is also limited as this sample comes from the first two IAPT sites in their early development stages; potential differences from current IAPT services and other psychological therapy services are unquantifiable.

4.2. Recommendations for future research

These post-hoc interpretations of the findings give avenues for further prospective investigation. Specifically, repeating this study in more current IAPT services on a larger sample would be

beneficial to establishing whether the same variables remain predictive of first session non-attendance. It would be particularly interesting to establish whether newer IAPT services, such as those set up for people with personality disorders, have been more successful at engaging those with more severe or chronic illness or those presenting with risk. Also, repeating the study, but expanding it to include variables not available in this study, such as attitudinal factors may enable a more reliable predictive model to be developed. The analysis of some variables in more detail, such as the PHQ-9 risk and hopelessness items measured separately, would enable the relationship between hopelessness, risk and attendance to be explored further. Research following up non-attenders would be useful to gain an understanding of reasons for non-attendance, as those given above are only speculative. Further research into the effects on IAPT attendance of referrers using enhanced engagement techniques and being able to refer direct to high intensity interventions would be beneficial.

4.3. Conclusion

Non-attendance at initial appointments in the IAPT demonstration sites was high. We found the clinical characteristics of suicide risk, severity of emotional distress and illness duration, along with site, more predictive of IAPT non-attendance than socio-demographic characteristics. Our findings suggest that IAPT referrers should consider implementing interventions to increase psychological therapy attendance. Also, clinicians referring to and working in IAPT services should give more consideration to clinical characteristics as predictors of non-attendance.

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