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ORIGINAL ARTICLE

Does an encouraging letter encourage attendance at psychiatric out-patient clinics? The Leeds PROMPTS randomized study

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Background. The aim was to reduce non-attendance for first-time consultations at psychiatric out-patient clinics.

Method. The study was a pragmatic randomized controlled trial; the setting was seven inner-city UK out-patient clinics in Leeds. The participants were 764 subjects of working age with an appointment to attend a psychiatric out-patient clinic for the first time. The intervention was an 'orientation statement' letter delivered 24–48 h before the first appointment compared with standard care. The primary outcome measure was attendance at the first appointment; secondary outcomes included hospitalization, transfer of care, continuing attendance, discharge, presentation at accident and emergency and death by 1 year.

Results. Follow-up was for 763 out of 764 subjects (>99%) for primary and for 755 out of 764 subjects (98.8%) of secondary outcome data. The orientation statement significantly reduced the numbers of people failing to attend [79 out of 388 *v.* 101 out of 376 subjects, relative risk 0.76, 95% confidence interval (CI) 0.59–0.98, number needed to treat 16, 95% CI 10–187].

Conclusions. Prompting people to go to psychiatric out-patient clinics for the first time encourages them to attend. Pragmatic trials within a busy working environment are possible and informative.

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Key words: Out-patient attendance, pragmatic, psychiatry, randomized.

Introduction

Background

Early support and treatment for people with mental health problems help prevent deterioration in their mental state (Thornicroft *et al*. 1996) and reduce the risk of relapse (Commander *et al*. 1997) and compulsory admission to hospital (Turner, 1996). This initial support and treatment are often shared between primary care and psychiatric out-patient clinics.

Attendance at clinics, however, can be poor. Every week in the UK each general practitioner makes at least four appointments for consultations that are not attended and 10–40% of people with mental health problems do not attend their initial out-patient appointment (McGlade *et al*. 1988; Thompson, 2001). In addition to the adverse clinical consequences and the waste of resources, failure to attend often ensures that the burden of care falls back to primary care. Finally, attendance at out-patient appointments may be a key performance indicator used to measure quality of care (Healthcare Commission, 2005).

Reminders or prompts to encourage attendance at clinics are used in day-to-day practice by some clinicians. Examples of such strategies are telephone calls (Hershorn, 1993), specific visits to the home (Phan, 1995) or issuing a copy of the referral letter to the patient (Hamilton *et al*. 1999). All such prompts may be embedded within complex care packages, especially for those with ongoing illness. Their value is, however, unclear (Smoller *et al*. 1998) and there are no guidelines to describe when prompts should be deployed. A relevant Cochrane systematic review (Reda & Makhoul, 2001) identified three trials. It was not clear whether prompting by telephone 1–2 days before the appointment improved attendance. Letters sent out a few days before the appointment, however, did increase

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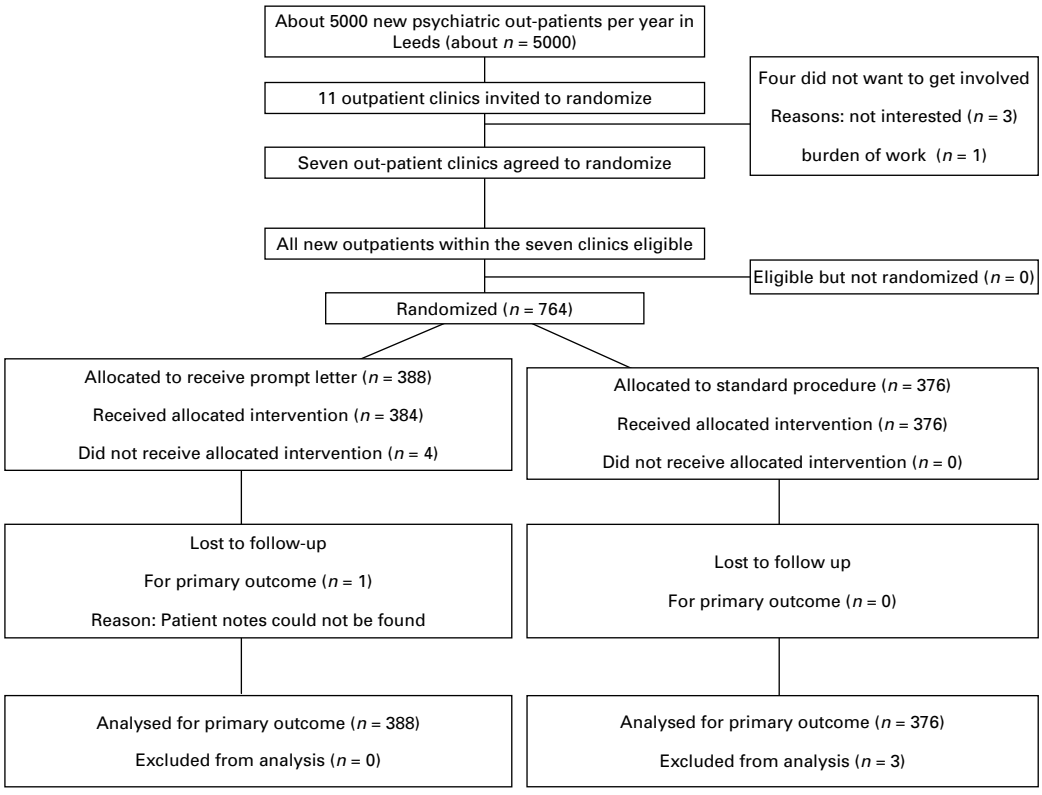

Fig. 1. CONSORT diagram.

attendance when compared with no prompts [two trials: $n = 200$, relative risk (RR) missed appointment 0.6, 95% confidence interval (CI) 0.4–0.9, number needed to treat (NNT) 6, 95% CI 4–21]. There was a suggestion that an 'orientation statement' letter (a short paragraph, taking about 30 s to read, explaining how the programme of care worked, the fee system and providing gentle encouragement) was best (Reda & Makhoul, 2001). There remained, however, insufficient power within the pooled trials to confidently establish the value of any of the prompts. Second, the research was conducted within a fee-based US mental health service setting during the 1980s and it was not clear if it was applicable elsewhere.

Aim

The aim of the study was to compare a simple timely postal 'orientation statement' with standard care to encourage attendance at a range of adult psychiatric out-patient services.

Methods

Seven clinics providing adult psychiatric services agreed to take part out of the 11 selected (see Fig. 1). Every person due to attend the seven study clinics for the first time was eligible (May 2003 to July 2004). Relevant demographic and contact data were extracted from the Patient Administration Systems (PAS) before the first appointment was due or were gained from the relevant clinic secretaries. Anonymized numbers corresponding to each person were then sent to one of the collaborators (C.E.A.) who generated allocation lists stratified by type of clinic using an online program (Dallal, 2003). With the exception of general adult clinics, with which the trial started, each allocation list employed blocks of even numbers of less than 10, also of random size. C.E.A.'s clinic for people of no fixed abode was one that was included within the general adult category but only four people were eligible (having an address). All linking of allocation lists to anonymized numbers and to patient details was undertaken by the trial co-ordinator (J.K.) who concealed the records and posted the prompt.

The intervention group received an individualized *pro forma* letter sent from the central administrative office 72 h prior to his or her scheduled first appointment. This 'orientation' letter was very short, taking 30 s to read (Appendix 1). It was written on headed paper, explained the time of appointment and gave the name of the doctor, a short description of the clinic and its routine, a map, and finally a request to bring medication and a friend or family member. Both the experimental and control groups received standard care, which is an appointment card for clinic

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within the following 13 weeks. About 47% of both arms were subject to a new form of standard care that involves 'opt-in partial booking'. In this system psychiatric services send new out-patients a letter asking the person to confirm if they really wish to attend psychiatric out-patient services. If they decline or do not reply no routine appointment is made.

All outcomes were routinely collected and recorded by staff blind to group of allocation. The primary outcome was failure to attend the prearranged first out-patient appointment. Secondary outcomes were attendance rates stratified by the specific subspecialty of clinic, by partial booking service, and death and use of health service resources at 1 year. In order to determine a 5% difference in attendance rates, from a baseline non-attendance rate of 23% with 80% certainty 1200 patients were needed. The trial recruited for 1 year and ended because of constraints of time and finance rather than slowing of recruitment. Follow-up was until 1 year after each person's initial out-patient appointment and data were extracted from PAS or the person's psychiatric notes. We undertook no interim analyses and tests were two-tailed. Individual patient consent was not requested.

Table 1. *Demographic data and target clinic by group of allocation*

	Prompt ($n=388$)	No prompt ($n=376$)
Sex		
Female, *n*	182	181
Male, *n*	206	195
Age, mean (S.D.)	36.6 (12.6)	36.5 (11.1)
Clinic		
Addiction clinic, *n*	134	139
Liaison, *n*	77	75
Psychosexual medicine, *n*	74	73
General adult, *n*	70	57
Chronic fatigue service, *n*	26	26
Women's service, *n*	4	4
Self harm, *n*	3	2
Partial booking		
Yes, *n*	178	175
No, *n*	210	201
Not available for appointment	0	3[a]

S.D., Standard deviation.

[a] Two people admitted to hospital at time of first appointment, one dead.

Results

A total of 764 people were randomized. Potential confounders (age, sex, partial booking service) were evenly distributed across groups (Table 1). The imbalance between groups for the general adult clinic represents the play of chance (see Discussion), as this was the only clinic not blocked in numbers less than 10. We were able to acquire all but one record for the primary outcome (Table 2) and 755 (98.8%) people entered the secondary analyses (see Fig. 1).

The orientation letter prompting people to attend arrived by standard first class postal services about 24–48 h before their appointment was due. We found that it statistically significantly reduced numbers of people failing to attend [$n=761$, absolute risk reduction (ARR) 7%, RR 0.76, 95% CI 0.59–0.98, NNT 16, 95% CI 10–187]. The 'opt in' partial booking reduced this effect (Table 2). Some sub-speciality clinics saw few new patients but all secondary analyses of non-attendance rates are consistent with the primary finding.

The initial prompt did not have any discernable effect for any secondary outcomes for which there were substantial numbers of events at 1-year follow-up. About 70% of people in both groups were discharged back to primary care, 10% were transferred to another service and 20% continued psychiatric out-patient follow-up. For other outcomes, where the event rate was low, at the end of a year, more people in the standard care group had, at some point, been admitted to psychiatric hospital, attended an accident and emergency department or had died (Table 2). None of these findings reaches conventional levels of statistical significance.

Discussion

All clinics were busy, but, because the pragmatic design did not increase the burden of work, and because of continuing goodwill within the service, most clinics we approached agreed to take part. The initial 11 clinics were chosen to reflect the busy, general services in Leeds and those that declined to take part may have been the particularly hectic out-patient departments. Applicability of results, as with any trial, is therefore open to interpretation. We do not think that participating clinics in the PROMPTS trial were so self-selected as to render results impossible to apply. The resulting seven reflect a range of general adult services but may not be generalizable. In 14 months we randomized 764 people attending these clinics for the first time (about 15% of all people attending psychiatric out-patient clinics for working-age adults for the first time in Leeds during that period). The clinics represent the broad range of local psychiatric out-patient services.

The study started within 'general adult' psychiatric out-patients. Anticipating more recruitment in this

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Table 2. *Results*

	Prompt		No prompt		Relative risk fixed (95% CI)
	n	%	*n*	%	
Primary outcome – failed to attend at first opportunity					
Attended	288	74	255	68	
DNA	79	20	101	27	0.76 (0.59–0.98)
Cancelled	20	5	17	5	
Missing	1	0	0	–	
N.A.	0	–	3	0	
Totals	388	100	376	100	
Non-attendance – by PBS					
Attended					
PBS	138	36	126	34	
No PBS	150	39	129	34	
DNA					
PBS	32	8	37	10	0.84 (0.55–1.28)
No PBS	47	12	64	17	0.70 (0.51–0.97)
Cancelled					
PBS	8	2	10	3	
No PBS	12	3	7	2	
Missing	1	0	0	–	
N.A.	0	–	3	1	
Totals					
PBS	178	46	173	46	
No PBS	209	54	200	54	
Overall	775	100	376	100	
Non-attendance – by type of service, *n* (total subjects)					
Addiction clinic	25 (134)	19	35 (138)	25	0.74 (0.47–1.16)
Chronic fatigue service	3 (26)	12	6 (26)	23	0.50 (0.14–1.79)
General adult	16 (70)	23	9 (56)	16	1.42 (0.68–2.97)
Liaison	12 (76)	16	21 (75)	28	0.56 (0.30–1.06)
Psychosexual medicine	22 (74)	30	29 (72)	40	0.74 (0.47–1.16)
Self harm	0 (3)	–	1 (2)	50	0.25 (0.01–4.23)
Women's services	1 (4)	25	0 (4)	–	3.00 (0.16–57.46)
1 year follow-up					
Hospitalized at any point	1	0	6	3	0.16 (0.02–1.34)
Accident and emergency visit	1	0	4	1	0.24 (0.03–2.16)
Domiciliary visit	0	–	0	–	–
Discharged	275	72	276	74	0.97 (0.89–1.06)
Transferred to another service	45	12	42	11	1.04 (0.7–1.55)
Mental Health Act used	0	–	0	–	–
Suicide or death	0	–	3	<1	1.88 (0.01–2.68)
Follow-up	89	23	84	23	1.03 (0.79–1.34)
Secondary outcomes missing	5	1	4	1	
Totals	383		372		

CI, Confidence interval; DNA, did not attend; N.A., not applicable; PBS, partial booking service.

sub-specialty than occurred, we did not use small block randomization and the end of the trial we had randomized a total of 127 people from a balanced allocation list of 200. Our allocation to intervention groups within 'general adult' psychiatric out-patients was noted, as part of a *post hoc* analysis, to be imbalanced but, throughout the whole trial the sequence of allocation was fully concealed and strictly adhered to (see Protocol – available in the online version of the paper). We found the likely explanation

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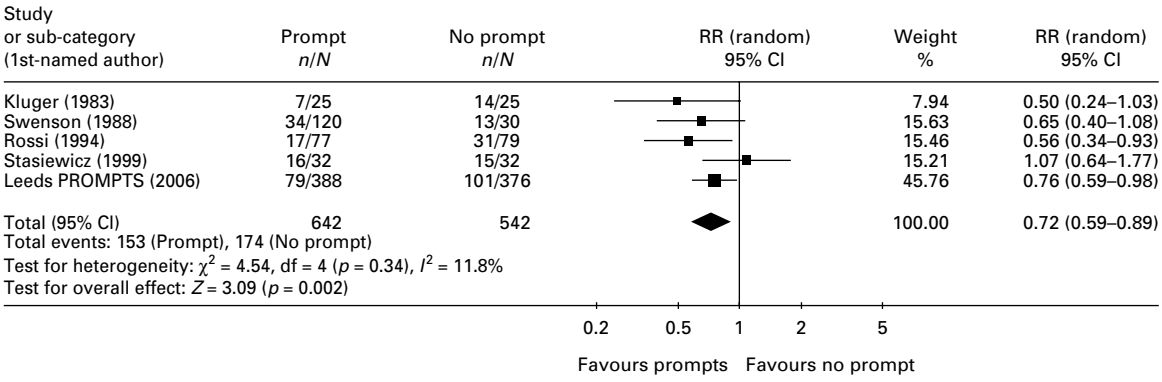

Fig. 2. Leeds PROMPTS in the context of all other known studies – outcome: did not attend appointment. RR, Relative risk; CI, confidence interval; df, degrees of freedom.

was the play of chance as, according to the concealed allocation list, should another 30 been randomized from general adult psychiatry the groups of allocation would have balanced.

Routine data collection, even at 1 year, was excellent. Although a full record sometimes had to be pieced together from both PAS and clinical notes, all data were available for the vast majority of people. We found that punctual supply of routine data was not always a reality but, with tenacity, at least for this part of the UK's National Health Service (NHS), these routine data nearly always existed.

This pragmatic trial does suggest that gently prompting with a first psychiatric out-patient appointment by a timely encouraging letter significantly decreases non-attendance rates. Adding these data to the findings of all other relevant trials (Kluger & Karras, 1983; Swenson & Pekarik, 1988; Rossi, 1994; Stasiewicz & Stalker, 1999) shows our results to be consistent and to heavily weight the overall meta-analysis (Fig. 2).

Although we are not aware of any randomized trials, data from within this study on the effects of partial booking suggest that it too has an effect on non-attendance. The orientation statement prompt aims to encourage attendance by making the process less intimidating. Partial booking, however, relies on the person wanting to 'opt in'. The orientation statement prompt probably encourages those wavering about psychiatric attendance whereas partial booking may well not and, in this way, opportunities to help this vulnerable, avoidant group, and to share workload with primary care, are being lost.

This simple administrative procedure will increase the already heavy workload of psychiatric out-patient clinics. Even when appointments are missed clinicians do not, as a rule, waste their time. Patients are double-booked, dictation completed, telephone calls made and colleagues consulted. With current levels of staffing, increasing attendance may be more welcomed by managers, primary carers, and patients than those manning psychiatric clinics.

Even though this study is the largest of its type and has produced clear results, it could and should be replicated to confirm the strength of the effect in different settings. For this study, findings by clinic type are sub-group analyses – generating, not proving hypotheses. In the same way, replication should investigate whether simple prompts to attend psychiatric out-patient clinics do have longer-term effects on the risk of hospital admission, attendance at accident and emergency departments and self harm.

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Declaration of Interest

None.

Note

Supplementary information accompanies this paper on the Journal's website (http://journals.cambridge.org).

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Appendix 1

Example of letter

CLINIC/HOSPITAL LOGO

[ADDRESS AND TELEPHONE NUMBER OF CLINIC]

[PATIENT'S NAME AND ADDRESS]

[DATE OF LETTER]

Dear [PATIENT'S NAME]

Re: Your appointment at [NAME OF CLINIC]

This is a short note to remind you about your appointment on [DATE] at [NAME OF CLINIC].

Your appointment will be with [NAME AND TITLE OF CONSULTANT] or another doctor working in his/her team. As with other medical consultations, this interview will be private and confidential. It is often helpful if you bring a friend or family member and medication along, especially for your first appointment. The clinic is very similar to your GP's. It has a reception desk and after the receptionist knows you have arrived, he/she will inform the doctor. Usually within 15 minutes of the appointment, you will see the doctor. We know your first appointment is important and we have set aside 60 minutes for it.

The [NAME OF CLINIC] is on [NAME OF STREET], and is located [DIRECTIONS]. A map is enclosed with this letter.

If you have forgotten about your appointment or made other plans, do not worry. Please let me know and we can rearrange your appointment.

Yours sincerely

[NAME OF SECRETARY]
Secretary to [NAME OF CONSULTANT]

Encl. [MAP]

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