Out-patient appointments which are missed without prior notice are a major contributor to wasted resources in planned mental healthcare services. It is not unusual that a quarter to a third of patients referred to a service will miss their first appointment (Hoare et al, 1996). Non-attendance rates for second and subsequent appointments are lower. Early non-attendance predicts attrition later in treatment (Goode, 1997; Aubrey et al, 2003), leading to further wasted resources, with most first-time non-attenders never attending subsequent appointments.

One factor that consistently seems to affect non-attendance is waiting time. This is particularly true in child and adolescent mental health services (CAMHS). Patients are less likely to attend the longer they wait between referral and their first appointment (Stern & Brown, 1994). In one study, families who attended had waited a mean of 3 weeks fewer than families who did not attend (Munjal et al, 1994). Another study (Foreman & Hanna, 2000) suggested a curvilinear relationship between waiting time and families’ engagement with CAMHS, with lack of engagement measured by a combination of non-attendance and failure to respond to correspondence asking if they still wanted treatment. Engagement was greatest for families waiting between 4 and 30 weeks for their first appointment, with just 10% responding after an 80-week wait.

Non-attendance threatens to maintain a vicious cycle, in which longer waits increase non-attendance, with the consequent wasted clinical time further prolonging waiting time for other patients. As a result, non-attendance disenfranchises many patients from treatment. As demand for services rises it becomes more important to reduce the time wasted by initial non-attendance.

Another factor which appears to affect attendance is the extent to which patients are engaged with a referral. Attendance at CAMHS is less likely when parents are actively opposed to a referral (Cottrell et al, 1988). Attendance at adult psychology appointments was greater when patient-led, either by the patient asking their general practitioner (GP) for the referral or by GPs seeing patients twice to discuss the referral before making it (Munro & Blakey, 1986).

A simple way of assessing patients’ engagement with a referral to mental health services is by asking them to opt in. Opt-in systems require the patient to respond in some way to the offer of an appointment. Those who do not respond are ineligible to attend. Opt-in is increasingly used by mental health services, and there are a number of empirical reports of its use (Balfour, 1986; Spector, 1988; Adams et al, 1989; Anderson & White, 1996; Wiseman & McBride, 1998; Srivasta & Allen, 1999; Waring et al, 1999; Yeandle, 1999; Conaghan et al, 2000).

A survey of psychology departments in the UK found that only those with a waiting list used opt-in systems (British Psychological Society, 1995), implying either that opt-in is a pragmatic response to long waiting times or that it does not work. This paper reviews the impact of opt-in and other interventions aimed at reducing initial non-attendance.

Method

Hand searches for papers addressing non-attendance were made of issues of Clinical Psychology, and its forerunner, Clinical Psychology Forum, and of Psychiatric Bulletin for the years 1992–2003. Hand searches were also made of Child and Adolescent Mental Health up to 2003 and its forerunner, Child Psychology and Psychiatry Review, and Clinical Child Psychology and Psychiatry (both from 1998 to 2003). Citations within identified articles were also followed up to identify relevant papers.

Results

Characteristics of studies

Nine studies compared non-attendance rates with an opt-in system with non-attendance rates with a standard system of sending out appointments and no requirement to opt in. Their results are summarised in Table 1. One pseudo-randomised controlled trial compared opt-in with a reminder letter and no intervention (Wiseman & McBride 1998). Six studies compared non-attendance rates before and after the introduction of an opt-in system, with four comparing equivalent months (ranging...
from 3 to 12 months) in succeeding years. Two studies compared opt-in with standard appointments sent out concurrently in another part of the service. No study reported a subsequent follow-up to investigate the long-term impact of an opt-in system, although up to 3 years’ data on its operation have been recorded (Anderson & White, 1996).

Demographic and diagnostic data

Stallard & Sayers (1998) reported extensive demographic and diagnostic data, and Adams et al (1989) reported limited diagnostic data about the opt-in group but not the comparison group. In both these studies, participants in the opt-in group were drawn from slightly different populations from participants in the control group (respectively, patients selected for opt-in v. patients treated by the local team, and patients seen by a targeted under-5s’ service v. patients referred to a psychologist in a paediatric department). Conaghan et al (2000) reported demographic data on the social deprivation of the locality where opt-in was introduced. No other study reported diagnostic or demographic data.

Impact of opt-in systems on non-attendance

All except one of the studies summarised in Table 1 found that non-attendance rates were reduced following the introduction of an opt-in system. The median non-attendance rate was 27% without an opt-in system and 4% with an opt-in system. When studies were excluded that made concurrent comparisons between non-equivalent populations, or before-and-after comparisons where the length of data collection before introducing opt-in was unspecified, the median non-attendance rate was 28% without an opt-in system and 2% with an opt-in system.

Varieties of opt-in

In most studies patients were not offered an appointment unless they contacted the service in response to a written communication. It is not clear whether this is the best method for reducing non-attendance because few studies have used other methods, although the method used for opting in was not clearly specified in the one study which reported no reduced non-attendance (Conaghan et al, 2000).

Table 1. Studies investigating the impact of opt-in systems on non-attendance at mental health clinics

| Study                          | Service                        | Opt-in method                                      | Non-attendance rate |
|--------------------------------|--------------------------------|---------------------------------------------------|---------------------|
|                                |                                |                                                   |                     |
|                               |                                |                                                   | Without opt-in, %   |
|                               |                                |                                                   | sample size)      |
|                                |                                |                                                   | With opt-in, %     |
|                                |                                |                                                   | sample size)      |
| Controlled trial               |                                |                                                   |                     |
| Wiseman & McBride (1998)       | Child and family psychiatry    | Appointment after response                        | 29 (82)            |
|                                |                                |                                                   | 0 (46)             |
| Before/after comparison over equivalent months in succeeding years |                                |                                                   |                     |
| Balfour (1986)                 | Adult clinical psychology      | Appointment after response (3 months)             | 11 (46)            |
|                                |                                |                                                   | 2 (41)             |
| Spector (1988)                 | Clinical psychology            | Appointment after response (9 months)             | 35 (43)            |
|                                |                                |                                                   | 12 (25)            |
| Srivasta & Allen (1999)        | Adult psychiatry               | Choose and book (12 months)                       | 28 (106)           |
|                                |                                |                                                   | 0 (85)             |
| Conaghan et al (2000)          | Adult clinical psychology      | Not clearly specified (4 months)                  | 23 (unspecified)   |
|                                |                                |                                                   | 23 (unspecified)   |
| Before/after with unspecified time before intervention |                                |                                                   |                     |
| Anderson & White (1996)        | Primary care psychology        | Appointment after response (36 months)            | 25 (unspecified)   |
|                                |                                |                                                   | 3 (1824)           |
| Yeandle (1999)                 | Child psychology               | Appointment after response (12 months)            | 23 (435)           |
|                                |                                |                                                   | 4 (unspecified)    |
| Concurrent comparisons with population not equivalent to the opt-in group |                                |                                                   |                     |
| Adams et al (1989)             | Child psychology               | Appointment after response                        | 36 (31)            |
| Stallard & Sayers (1998)       | CAMHS                          | Confirm appointment                               | 27 (unspecified)   |
|                                |                                |                                                   | 5 (25)             |

1. Randomly allocated sequentially to three conditions.
2. Number of months after opt-in method in parentheses.
3. Number of months for comparison after intervention in parentheses.
4. An appointment was sent out only after the patient contacted the service in response to a letter.
5. Patients were invited to contact the clinic to arrange a convenient appointment.
6. Patients were asked to confirm an appointment offered: if not confirmed, the appointment was cancelled and offered to another patient.

CAMHS, child and adolescent mental health service.
Clinical risks of opt-in

An important question concerns the risk to patients who fail to opt in and are therefore not seen. Patients from deprived socio-economic backgrounds are less likely to attend mental health appointments than those from more advantaged groups (Berrigan & Garfield, 1981; Conaghan et al, 2000), and opt-in would create health inequalities if it further excluded such patients. Addressing this concern directly, Conaghan et al (2000) found that an opt-in system did not disproportionately increase non-attendance from socio-economically deprived areas. Anderson & White (1996) asked patients why they did not opt in to psychological treatment. The patients gave reasons which were more practical than pathological, such as wariness about seeing a psychologist, labelling and treatment content, or believing the problem would resolve (or had resolved) itself without help.

Other methods of reducing non-attendance

Postal or telephone reminders which were sent within 3 days of the appointment reduced non-attendance rates by at least 50%, according to randomised controlled trials in psychiatry (Rusius, 1995) and CAMHS (Kourany et al, 1990). Many more patients cancelled their appointments, however, and cancelled appointments are hard to fill at short notice, resulting in the same wastage in clinical time as non-attendance. Requests for patients to confirm appointments reduced non-attendance at a clinic for alcohol problems (Goldbeck, 1993) but not in a psychology department (Fox & Skinner, 1997). Inviting 3–15 sets of parents at a time to an orientation meeting improved their subsequent attendance at initial assessments, although not at therapy (Wenning & King, 1995). Letters sent to patients when they were approaching the top of the waiting list barely reduced non-attendance (Wiseman & McBride, 1998), although orientation letters sent after an appointment was made did (Kourany et al, 1990). There was no evidence that sending patients an information leaflet about the service, as their first contact with it, reduces non-attendance unless combined with an opt-in system (Balfour, 1986; Adams et al, 1989; Keen et al, 1996).

Discussion

Evidence from nine studies, including one controlled trial, suggests that median non-attendance rates fall from around 27% to around 4% when opt-in systems are introduced. The reduction in non-attendance is variable and may not occur in every instance. Furthermore, it is not clear whether such reductions can be sustained over a period of years. The type of patient who fails to opt in seems to be similar to the type of patient who fails to attend when opt-in is not used. The challenge of engaging such patients is a separate problem from the challenge of reducing non-attendance.

A major limitation to existing studies is the absence of demographic or diagnostic data that would indicate the equivalence or otherwise of intervention and control group populations. In support of the robustness of the results, the impact of opt-in was marginally greater when the studies with greater threats to equivalence were excluded. However, in the absence of data it remains possible that diagnostic or demographic differences between groups may have affected attendance rates as well as opt-in systems. Future research on opt-in systems would benefit from closer attention to potential differences between intervention and control groups.

Non-attendance may be further reduced by reminding patients about their appointments, at least close to the time when they are due. Other methods of reminding patients about their appointments, without asking them to respond, appear either inconsistently effective or ineffective in reducing non-attendance. The effectiveness of opt-in, in which the first appointment is contingent on the patient’s response, is consistent with other indicators that attendance is influenced by a patient’s engagement with a referral.

After at least 20 years of research, there is reasonably consistent evidence that opt-in systems, perhaps supplemented by reminders close to the appointment, are the method of choice for reducing non-attendance in secondary mental health services. Further research would be valuable to exclude the possibilities that the apparent impact of opt-in can be attributed to demographic or diagnostic differences and that its benefit may be short-lived. Notwithstanding, the recognition of the value of opt-in systems should be timely for National Health Service clinicians and managers who are uncertain how to meet the requirement for all patients to choose and book an appropriate first appointment (Department of Health, 2004). With an opt-in system combined with assessment slots set aside in advance by clinicians, letters can be written to patients inviting them to contact the clinic to opt in. Administrative staff can offer a choice of several appointments immediately to patients who telephone the clinic. Thus patients can be given choice at the same time as reducing the amount of clinical time wasted by non-attendance.

Declaration of interest

None.

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