A Comparative Survey of Missed Initial and Follow-Up Appointments to Psychiatric Specialties in the United Kingdom

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Objective: **Missed appointments are common in psychiatry. Nonattendance at the initial appointment may have different prognostic significance than nonattendance at subsequent appointments. This study examined the frequency of missed appointments among 9,511 initial outpatient appointments and 7,700 follow-up appointments across ten psychiatric subspecialties in a publicly funded mental health service in the United Kingdom.** ***Results:*** **The pooled missed appointment rate was 15.9%, higher than in previous studies on primary and secondary care attendance in the United Kingdom. Nonattendance was lowest on Fridays, in winter months, and in geriatric psychiatry and highest for substance abuse services and in community psychiatry. In most services, attendance improved after the initial appointment, but in psychosomatic medicine and geriatric psychiatry this pattern was reversed.** ***Conclusions:*** **There was a low rate of missed appointments in geriatric psychiatry, rehabilitation psychiatry, cognitive-behavioral therapy, and psychosocial medicine. A high nonattendance rate was found among persons with drug and alcohol difficulties and to a lesser extent in general adult psychiatry. Future studies should consider initial and follow-up appointments as distinct. (*Psychiatric Services* 58:868–871, 2007)**

Missed appointments are defined as those in which the patient is offered an appointment but does not attend and fails to notify staff of a cancellation. The cost of missed appointments to the National Health Service (NHS) in the United Kingdom has been estimated at £360 million per year, and the equivalent cost in the United States may be as high as $100 billion per year (1,2).

Missed appointments in psychiatry are a particular problem. Countrywide data from the NHS revealed that in England from 2002 to 2003, 19.1% of psychiatry outpatient appointments were missed, compared with an average of 11.7% outpatient appointments across all medical specialties (3). There appear to be important differences in terms of outcomes between persons who miss their initial psychiatric appointment and those who miss follow-up appointments. Those who fail to attend their initial appointment may do so because their problems have resolved or because they did not agree that the referral was necessary. Those who fail to attend a follow-up psychiatric appointment are generally more unwell, more functionally impaired, and have a higher chance of subsequently being admitted to a hospital, compared with those who attend (4).

The importance of this issue has been emphasized by the discovery that recently discharged psychiatric patients who miss appointments are two to three times more likely to be readmitted (5). Across different specialties, patients from ethnic minority groups, those who are homeless, those from lower socioeconomic groups, and those with ongoing psychosocial problems have been shown to be less likely to attend (6). However, there have been only a handful of studies that have examined nonattendance in mental health settings. In a study of 236 psychiatry appointments, patients were at greater risk of missing their appointment if they were younger, missed previous appointments, were scheduled to see a resident physician, or lived a greater distance from the hospital (7).

In a study of 180 psychiatric consultations, level of distress, disagreement with the need for referral, and a long waiting time between the referral and appointment predicted nonattendance (8). In the largest study to date in a psychiatric setting, 17.8% of 874 clients referred to an outpatient psychiatry department missed their appointment without explanation. They were more likely to be single, to have been diagnosed as having a personality disorder or a substance use disorder, and to have been referred from the emergency department (9). Kruse and colleagues (10) found five predictors of nonattendance, namely younger age, ethnic background, poor family support, not taking psychotropic medications, and having health insurance.

No study has previously examined

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Table 1

Comparison of initial and follow-up missed appointment rates in the United Kingdom, by specialty

Variable	Initial appointments (April 1, 2003–March 31, 2004)			Follow-up appointments (April 2004)			p[a]
	Missed	Total	%	Missed	Total	%	
All specialties	1,555	9,511	16.3	1,186	7,700	15.4	.15
Community (general adult) psychiatry	775	3,108	24.9	847	3,960	21.4	.006
Geriatric psychiatry	78	2,349	3.3	87	1,744	5.0	.001
Child and adolescent psychiatry	171	1,164	14.7	63	404	15.6	.69
Psychosomatic medicine	94	1,069	8.8	27	128	21.1	.003
Alcohol services	223	604	36.9	24	131	18.3	.002
Drug services	129	509	25.3	84	303	27.7	.057
Cognitive-behavioral therapy	43	403	10.7	5	99	5.1	.1
Eating disorder service	25	128	19.5	8	89	9.0	.065
Forensic psychiatry	10	51	19.6	9	67	13.4	.44
Rehabilitation psychiatry	1	20	5.0	3	88	3.4	.5

[a] The p value was calculated by using chi square analysis. Rate of missed initial and follow-up appointments were calculated by row.

whether nonattendance rates vary according to psychiatric specialty by using a uniform sample from one center. Our aim was to clarify whether the different treatment services in different psychiatric specialties have an impact on clinic attendance, separating initial nonattendance from follow-up nonattendance.

Methods

Our survey was conducted in the Leicestershire Partnership NHS Trust, Leicester, United Kingdom, a public health care setting that provides comprehensive mental health and learning disability services to an area with a population of around one million people. Leicester is an area of the United Kingdom where the population comprises approximately 35% ethnic minorities. There is extremely limited private practice locally, and therefore almost all people treated outside of primary care for mental health problems are seen by this service. In Leicester, mental health care service is divided into the following major groupings: alcohol service, drug service, child and adolescent psychiatry, cognitive-behavioral therapy, eating disorder service, geriatric psychiatry (known locally as psychiatry for the elderly), forensic psychiatry, community psychiatry (known locally as general adult psychiatry), psychosomatic medicine (known locally as liaison psychiatry), and rehabilitation psychiatry (known locally as treatment and recovery service).

Clerical staff from all services routinely collect attendance data and limited clinical data from the written records and enter them into a master electronic database. Clinical information was limited to name, age, general practitioner, date of birth, psychiatry specialty, and referrer sources and referring fundholding agency (Primary Care Trust).

We studied two groups of data of approximately equal size: initial appointments and follow-up appointments. We collated the available information on all persons who did not attend follow-up appointments at outpatient clinics throughout the Leicestershire Partnership NHS Trust for one month (a month was chosen at random). Second, we collected the same information for patients who did not attend their initial outpatient appointment during April 1, 2003, through March 31, 2004. Third, we analyzed both initial and follow-up missed appointments for the month of April 2004 for a direct comparative sample. We examined all subspecialties recorded in the database, acknowledging that some specialties had a very small turnover of patients, even over the course of one year. Analysis was performed by using chi square tests in StatsDirect.

Results

As shown in Table 1, between April 1, 2003, and March 31, 2004, there were 9,511 initial appointments, and of these, 1,555 appointments were missed (16.3%). During April 2004 there were 7,700 follow-up appointments across all specialties. Of these, there were 1,186 missed appointments (15.4%). This suggests that the missed appointment rate is approximately the same for follow-up and initial appointments across services ($p<.15$). However, because attendances and missed attendances are subject to temporal fluctuations, we analyzed both initial and follow-up missed appointments for the month of April 2004 for a direct comparative sample. Results suggested a small but statistically higher follow-up nonattendance rate (15.4%) compared with the initial rate (13.4%) when the same period was examined ($p<.05$).

We examined the proportion of missed appointments by each month of the year by using initial appointment data. There was a moderate degree of variation from the month with best attendance (March, 13.9% nonattendance) to the month with the worst attendance rate (April, 19.6% nonattendance). There was no correlation between the numbers of patients seen per month and the rate of missed appointments ($r=.3$). The data showed a mild trend toward a higher missed appointment rate in the summer months, but this was not consistent. The data showed a trend toward a lower missed appointment rate in the winter months, but this finding was not statistically significant.

Table 2

Comparison of initial and follow-up missed appointment rates in the United Kingdom, by referrer

Referrer	Initial appointments (April 1, 2003–March 31, 2004)			Follow-up appointments (April 2004)			p[a]
	Missed	Total	%	Missed	Total	%	
Primary care physicians	714	3,992	17.9	339	2,435	13.9	.01
Tertiary care	314	1,941	16.2	183	1,605	11.4	.004
Patient	113	418	27.0	57	223	25.6	.776
Community psychiatric nurses	27	250	10.8	35	461	7.6	.18
Social services	27	204	13.2	11	90	12.2	.9
Police or probation service	14	55	25.5	11	35	31.4	.55

[a] The p value was calculated by using chi square analysis. Rate of missed initial and follow-up appointments were calculated by row.

We examined missed appointment by day of the week, using follow-up appointment data for 7,700 appointments in April 2004. There was little variation in missed appointments during the working week, although compared other weekdays, Friday had significantly fewer missed appointments (167 appointments, or 12.9%) and fewer total appointments (data available on request, $p<.01$). Overall there was no correlation between the number of cases seen per day and the number of missed appointments (multiple $r=.39$).

Using both data sets, we compared rates of missed appointments by psychiatric specialty (Table 1). The services with the highest proportion of missed initial appointments were for alcohol problems, drug problems, community (general adult) psychiatry, and eating disorders. The services with the highest proportion of missed follow-up appointments were for alcohol problems, drug problems, community (general adult) psychiatry, and psychosomatic medicine (known in the United Kingdom as liaison psychiatry). Rates of missed follow-up appointments were significantly higher for substance problems and community psychiatry, compared with the overall mean rate ($\chi^2=44$, df=1, $p<.001$, and $\chi^2=18.5$, df=1, $p<.001$, respectively). The services with the lowest proportion of missed initial appointments were geriatric psychiatry, rehabilitation psychiatry, and psychosomatic medicine. The services with the lowest proportion of missed follow-up appointments were rehabilitation psychiatry, geriatric psychiatry, and cognitive-behavioral therapy. All rates except for those for rehabilitation psychiatry were significantly different from the mean rate at a level of .05 or greater.

For alcohol services, cognitive-behavioral therapy, eating disorders, forensic psychiatry, community (general adult) psychiatry, and rehabilitation psychiatry, follow-up missed appointment rates were lower than the rate for initial missed appointments (Table 1). However, in psychosomatic medicine, child and adolescent psychiatry, drugs services, and geriatric psychiatry, this pattern was reversed.

Next, we examined rates of missed appointments by referring agency (Table 2). Forty-two percent of initial contacts (3,992 of 9,511) and 32% of follow-up contacts (2,435 of 7,700) were initiated by primary care physicians. The rate of initial and subsequent missed appointments was highest following self-referral and referrals from the police or probation service and lowest for referrals from community psychiatric nurses and social services.

Discussion

Our study highlights considerable variation in missed appointments by psychiatric specialty and referrer. Overall, 2,741 of 17,211 appointments were missed (15.9%). This is higher than rates in previous large-scale studies across primary and secondary care in the United Kingdom, suggesting that nonattendance rates are higher in psychiatric settings. Confirmation requires a comparative study. However, because nonattendance in psychiatry is associated with a poor outcome (4,5), this finding remains of some concern.

We found several services with lower than average rates of missed initial appointments. The low rate in geriatric psychiatry was in line with previous demographic findings, although it is of note that attendance in child and adolescent psychiatry was not better than average (7). The low missed rates for rehabilitation psychiatry, cognitive-behavioral therapy, and psychosomatic medicine might be explained by the high proportion of cases referred by colleagues rather than directly from primary care physicians. This is supported by the data showing that tertiary referrals (patients already in secondary care at the time of referral) have a low follow-up nonattendance rate of 11.4%. Nonattendance after primary care physician referral was somewhat higher than average (17.9%), but not strikingly so, unlike findings from previous studies (8). Psychosomatic medicine was unusual because of the low rate of initial nonattendance but a high rate of nonattendance at follow-up. This could reflect deteriorating medical illness in this population and warrants further examination. Not surprisingly, high nonattendance rates were found among persons with drug and alcohol difficulties. Importantly, higher than average rates were present in general adult psychiatry, which has also been observed clinically (11).

There are several limitations to the study presented here. The distribution of contacts was not equal across specialties. Similarly, only basic demographic data were available—for

example, we had no data on the influence of age, gender, or ethnicity. However, because a very large sample was examined, we expect most variations would be evenly distributed. We selected a sample (one month) for the follow-up attendance in order to allow a comparable sample size. However, we cannot exclude the possibility that April 2004 was atypical in some way. Additionally, we were unable to study previous nonattendance among those who had been offered appointments.

Conclusions

What are the implications for clinical practice? In most psychiatric specialties in the United Kingdom, two or three episodes of nonattendance elicit the withdrawal of that service, with no attempt to contact the patient personally. Yet there is general acceptance that unexpected loss of contact with a patient who has established symptoms is more likely to signify increased rather than absent mental health needs (12). We suggest that whenever possible, clinicians should consider potential causes of nonattendance before discontinuing any services unilaterally. Likelihood of initial nonattendance reflects patient beliefs and insight, source of the referral, and barriers to care (such as distance and cost). These continue to influence follow-up attendance, as do important interpersonal influences, such as therapeutic alliance and perceived helpfulness (13,14). Special consideration is needed for individuals whose first language is not the same as the one used by the health professional and for those with cognitive impairment or limited social support (15).

We suggest that all psychiatric services should have a protocol for managing nonattendance that takes into account these factors. Such a protocol can be helpful for both patients and staff. Without such a strategy, poor attendance could stimulate negative clinician attitudes and premature discontinuation of clinical services, whether or not the underlying patient needs have been addressed.

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References

1. Stone C, Palmer J, Saxby P, et al: Reducing non-attendance at outpatient clinics. Journal of the Royal Society of Medicine 92:114–118, 1999
2. Breen R, Thornhill JT: Noncompliance with medication for psychiatric disorders. CNS Drugs 9:457–471, 1998
3. Hospital Activity Statistics. London, Department of Health, 2003
4. Killaspy K, Banerjee S, King M, et al: Prospective controlled study of psychiatric out-patient non-attendance. British Journal of Psychiatry 176:160–165, 2000
5. Koch A, Gillis L: Non-attendance of psychiatric out-patients. South African Medical Journal 80:289–291, 1991
6. Waller J, Hodgkin P: Defaulters in general practice: who are they and what can be done about them? Family Practice 17:252–253, 2000
7. Campbell B, Staley D, Matas M: Who misses appointments? An empirical-analysis. Canadian Journal of Psychiatry 36:223–225, 1991
8. Grunebaum M, Luber P, Callahan M, et al: Predictors of missed appointments for psychiatric consultations in a primary care clinic. Psychiatric Services 47:848–852, 1996
9. Matas M, Staley D, Griffin W: A profile of the noncompliant patient: a thirty-month review of outpatient psychiatry referrals. General Hospital Psychiatry 14:124–130, 1992
10. Kruse GR, Rohland BM, Wu XY: Factors associated with missed first appointments at a psychiatric clinic Psychiatric Services 53:1173–1176, 2002
11. Cruz M, Cruz RF: Compliance and costs in a case management model. Community Mental Health Journal 37:69–77, 2001
12. Sladden NJ, Thomson AN: An evaluation of a surveillance system for patients discharged from the acute psychiatry unit in southern Tasmania. Australian and New Zealand Journal of Psychiatry 33:385–391, 1999
13. Lacy NL, Paulman A, Reuter MD, et al: Why we don't come: patient perceptions on no-shows. Annals of Family Medicine 2:541–545, 2004
14. Johansson H, Eklund M: Helping alliance and early dropout from psychiatric out-patient care: the influence of patient factors. Social Psychiatry and Psychiatric Epidemiology 41:140–147, 2006
15. Tanner EK, Feldman RH: Strategies for enhancing appointment keeping in low-income chronically ill clients. Nursing Research 46:342–344, 1997