CME ACTIVITY

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CME Objectives

After completing this CME activity, the psychiatrist should be able to:

- Realize that little empirical research exists on how clinicians respond to missed appointments
- Assess the impact of patient and clinician characteristics on clinician response to "no-shows."
- Discuss findings of the current study and their implications for establishing a "standard of care."

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Neither Drs. Smoller, Otto, Pollack, nor Ms. McLean has significant relationships with entities that may have influenced the presentation in any way.

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How Do Clinicians Respond to Patients Who Miss Appointments?

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Background: Although patients miss up to 60% of scheduled outpatient appointments, little is known about how clinicians respond to "no-shows." In an effort to determine how clinicians customarily handle missed appointments, we surveyed mental health clinicians and internists at 2 academic hospitals: a private psychiatric hospital and an urban general hospital.

Method: An anonymous questionnaire survey was mailed to psychiatrists, psychologists, and social workers at both hospitals and to internists at the general hospital. Clinicians were surveyed about their usual response to psychotherapy, psychopharmacology, and internal medicine patients who miss appointments.

Results: Among the 356 responses (39.5%) to 902 mailed questionnaires, there was substantial variability in clinicians' reported handling of "no-show" patients, although psychiatrists tended to be initially less active in pursuing patients than were nonphysician therapists and internists. A number of clinical variables were associated with clinicians' responses including the perceived risk of a bad outcome, hospital site, support staff availability, and billing practices.

Conclusion: The results suggest that clinicians' responses to missed appointments are determined by a complex mixture of influences rather than adherence to a readily definable "standard of care."

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The failure to attend appointments is a common occurrence in outpatient medical and mental health settings. Studies have documented that up to 30% to 75% of patients do not keep an initial outpatient appointment[1] and 20% to 60% of follow-up appointments are missed in medical,[2,3] pediatric,[4] and mental health clinics.[4] The costs of these failed appointments may be substantial and include preventing patients from receiving necessary care, producing inefficiencies in health care delivery, and impairing the clinician-patient relationship.

Investigations of the phenomenon of missed appointments ("no-shows," "failed appointments") have predominantly been of 2 types. First, studies have documented the prevalence of "no-shows" and the characteristics of patients who miss appointments.[5,6] For example, Matas and colleagues[6] reviewed 874 referrals to the outpatient psychiatry department of a large teaching hospital over a 2.5-year period and found that patients who missed appointments were more likely to be single, carry diagnoses of personality disorders or substance abuse, and be referred from the emergency department. The other line of investigation has examined the effectiveness of interventions designed to reduce "no-show" rates. In a meta-analysis of randomized trials, Macharia et al.[3] found support for a range of interventions including mailed reminders, telephone prompts, contracting with patients, and educating patients about the structure of the clinic and the need for appointments.

Although these studies have provided a profile of noncompliant patients and the outcome of interventions to reduce "no-shows," little is known about how clinicians actually respond to missed appointments. The range of responses may vary widely depending on the particular characteristics of the clinician, patient, and practice settings involved. With the growing implementation of practice guidelines in medicine, variation in clinical practices has been increasingly scrutinized. Clinicians are increasingly expected to adhere to a standard of care, which may or may not be easily discernible, and failure to do so may have medical-legal consequences. Missed appointments

by patients present a common, recurrent dilemma for clinicians because of the absence of an established standard of care and the potential harm associated with delayed follow-up (e.g., progression of illness in a cardiac patient or suicide in a depressed patient). It may be important to examine the nature and variability of clinicians' responses to "no-shows" in order to determine the boundaries of a reasonable standard of care.

The study described here is the first, to our knowledge, that has surveyed clinicians about their actual practices in response to patients who miss appointments. Three groups of clinicians were surveyed: psychiatrists, nonphysician psychotherapists (comprising psychologists and social workers), and internists. Our clinical experience suggested that clinicians who are medically-oriented are more likely to assume that a patient bears responsibility for compliance with treatment. Consequently, we hypothesized that internists would be less likely than mental health clinicians (psychiatrists and nonphysician therapists) to take steps to contact patients who missed appointments and that psychiatrists would be less likely than nonphysician therapists to pursue patients who miss appointments. We also hypothesized that a clinician's response might be influenced by a number of factors including whether the patient was known to be "high-risk" or "low-risk" and the clinician's years of experience and overall clinical workload.

METHOD

Subjects

An effort was made to survey all clinicians who had hospital addresses in the psychiatry, psychology, social work, and internal medicine departments at 2 teaching hospitals: Massachusetts General Hospital (MGH) and McLean Hospital. The survey was undertaken with the approval of each institution's human subjects committee. Departmental mailing lists were obtained and reviewed to eliminate individuals whose duties did not include outpatient clinical care (e.g., laboratory investigators). In order to minimize the risk of social desirability response biases, respondent anonymity was maintained. Subjects were mailed a large envelope that contained a brief cover letter, the questionnaire, and an interoffice return envelope addressed to the principal investigator. They were assured that the questionnaire was confidential, and no individual identifying information (e.g., name, code number) was collected.

Survey Questionnaire

An introductory page asked respondents to provide demographic and practice information including age, sex, years of clinical experience, hours devoted to outpatient work, and, for mental health clinicians, primary clinical orientation (psychodynamic, cognitive/behavioral, medical model, other). Practice setting was also included as a predictor; although all clinicians were hospital-affiliated, a substantial minority (36%) reported that they see outpatients primarily in other settings (private practice, community clinic, or "other"). Clinical scenarios were then presented, and respondents were instructed to answer questions based on their *usual* response to a patient under their care for at least 2 months who does not come to an appointment and has not canceled or rescheduled the appointment in advance. Definitions of "low-moderate" and "moderate-high" risk patients were provided to standardize the scenarios, and respondents were asked to describe their response to these 2 types of patients separately. For mental health clinicians, the *low-moderate risk* patient was described as "might include those who do not have severe illness, have been relatively stable, have an apparently low risk of impulsivity or injury to themselves or others or who have good supports." The *moderate-high risk* patient "might include those with more severe illness, a history of impulsivity, a potential risk of injuring themselves or others, or few supports." For internists, the *low-moderate risk* patient "might include those who do not have severe illness and have been relatively stable." The *moderate-high risk* patient "might include those with severe or active illness which would progress if left untreated."

The questionnaire presented a repeated series of questions in which respondents were asked to report the sequence of steps they would take in response to a "no-show." The psychiatrist version differed from the nonphysician therapist version in only 1 respect: the nonphysician therapist version asked only about patients being seen for psychotherapy, while the psychiatrist version included additional sections on patients seen for pharmacotherapy. Psychiatrists who do not see patients for psychotherapy were instructed not to respond to the psychotherapy items. The internist version contained questions that were identical to those in the psychopharmacology section of the psychiatrist version.

For each scenario, clinicians were asked a series of questions beginning with how they would initially respond to a patient who missed an appointment. For the patient being seen by a psychotherapist, the second question in the series asked: "If you do not hear from the patient and the patient does not appear for his/her next regular appointment, what would you usually do next?" For the patient being seen by a psychopharmacologist or

internist, the second question ("next step") asked: "If you do not hear from the patient within the time that the patient should have scheduled a follow-up visit or would have needed a refill of medication, what would you most likely do next?" The different wording of this question reflects the fact that therapy patients often have standing appointments whereas follow-up appointments for psychopharmacology and internal medicine patients are usually made at the time of a visit. For all scenarios, the third question ("third step") in the series was: "If I did not make contact with the patient by the above efforts, I would. . ."

The final section of the questionnaire, identical in the 3 versions, contained questions about factors that might influence the clinician's decision to contact the patient. These items were presented as Likert-type responses ranging from 1 ("not at all influential") to 5 ("extremely influential"). Additional questions asked about billing for missed appointments and whether office staff were available to call patients.

Data Analyses

The primary dependent variables were the type of response selected by the clinician: (1) wait for the patient to call/do nothing further to contact the patient; (2) call the patient; (3) write a letter to the patient; (4) try to reach others who may know the patient (e.g., other treaters, patient's family). In a minority of cases (2%), respondents wrote in an "other" response to an item. Inspection of the individual responses indicated that most of these "other" responses could be reclassified into 1 of the 4 primary response outcomes. In cases where this was not possible (9 item responses), the response was treated as missing data. In some cases, respondents circled more than 1 response per question. These items were recoded into 1 of the 4 primary outcomes by choosing the more "active" response according to a hierarchy in which "try to reach others" was considered the most active response, followed by "call the patient," "write a letter," and, finally, "wait/do nothing."

The primary analysis compared responses by clinician (psychiatrists vs. nonphysician therapists for psychotherapy patients and psychiatrists vs. internists for medication/medical patients) and patient-type (low risk or high risk) using Pearson chi-square or, where cell sizes were small, Fisher exact test. Multivariate logistic regression analyses were also performed to assess the impact of potential confounding covariates and to determine which variables had the greatest influence on clinicians' responses to "no-shows." All analyses were run using Stata 5.0.[7]

Table 1. Respondent Characteristics by Clinician Group*

Variable	Psychiatrists	Nonphysician Therapists	Internists
N	102	82	143
Age (mean ± SD), y	42.8 ± 12.0	46.1 ± 9.3	43.6 ± 12.1
% Female[a]	26.5	58.3	33.1
Site, N (%)			
General hospital	67 (65.7)	53 (64.6)	143 (100)
Psychiatric hospital	35 (34.3)	29 (35.4)	NA
Orientation, N (%)			
Psychodynamic	25 (25.0)	48 (60.0)	NA
Medical/Biological	51 (51.0)	0 (0)	NA
Behavioral/CBT	0 (0)	15 (18.8)	NA
Other	23 (23.0)	17 (21.3)	NA
Combination	1 (1.0)	0 (0)	NA
Primary practice setting, N (%)[b]			
Academic/hospital clinic	62 (62.0)	39 (48.2)	104 (74.3)
Private practice	26 (26.0)	29 (35.8)	25 (17.9)
Community clinic	5 (5.0)	4 (4.9)	6 (4.3)
Combination	7 (7.0)	9 (11.1)	5 (3.6)
Years of experience (mean ± SD)	14.6 ± 11.1	15.3 ± 9.5	16.9 ± 12.1
Outpatient hours/wk (mean ± SD)	17.4 ± 11.6	16.5 ± 8.9	16.2 ± 13.0

*The denominator for each percentage reflects the number who responded to that particular question. NA indicates not applicable.
[a] ($\chi^2 = 9.6$, df = 2, p = .008).
[b] ($\chi^2 = 16.9$, df = 2, p = .01).

RESULTS

Response Rates and Respondent Characteristics

A total of 902 questionnaires were mailed to clinicians at MGH and McLean hospitals. A total of 356 responses (39.5%) were received. There were no significant differences in response rates by clinician category ($\chi^2 = 2.52$, df = 1, p = .28). The response rate also did not differ by site for psychiatrists ($\chi^2 = 0.52$, df = 1, p = .47) or for nonphysician therapists ($\chi^2 = 1.22$, df = 1, p = .27). One psychiatrist was incorrectly mailed the nonphysician therapist version of the questionnaire and was excluded from further analyses. Also excluded were 28 respondents who reported that they do not treat outpatients. The final sample consisted of 327 valid questionnaires.

Table 1 presents the demographic and professional characteristics of respondents in the 3 clinician groups. The groups did not differ in age, years of experience, and weekly hours spent seeing outpatients. Compared with the other 2 groups, the proportion of female respondents was higher in the nonphysician therapist group ($\chi^2 = 9.6$, df = 2, p = .008).

Table 2. Clinicians' Initial Responses to Low- and High-Risk Patients Who Miss Appointments*

Response	Psychiatrists N	Psychiatrists %	Nonphysician Therapists N	Nonphysician Therapists %	Internists N	Internists %	Fisher Exact p Value
Low-risk therapy patient							.013
Call others	0	0	0	0	NA	NA	
Call patient	29	38.2	47	58.0	NA	NA	
Write	2	2.6	0	0	NA	NA	
Wait/do nothing	45	59.2	34	42.0	NA	NA	
High-risk therapy patient							.50
Call others	4	5.3	4	4.9	NA	NA	
Call patient	64	84.2	74	90.2	NA	NA	
Write	1	1.3	0	0	NA	NA	
Wait/do nothing	7	9.2	4	4.9	NA	NA	
Low-risk medication patient							< .001
Call others	1	1.1	NA	NA	0	0	
Call patient	17	19.3	NA	NA	47	33.6	
Write	6	6.8	NA	NA	44	31.4	
Wait/do nothing	64	72.7	NA	NA	49	35.0	
High-risk medication patient							.005
Call others	4	4.7	NA	NA	1	0.7	
Call patient	67	77.9	NA	NA	114	81.4	
Write	3	3.5	NA	NA	17	12.1	
Wait/do nothing	12	14.0	NA	NA	8	5.7	

*The denominator for each percentage reflects the number who responded to that particular question. NA indicates not applicable.

Table 3. Crude and Adjusted Odds Ratios for Taking Steps to Contact a "No-Show" Patient After a Missed Appointment

Category	Crude Odds Ratio	95% Confidence Interval	Adjusted Odds Ratio[a]	95% Confidence Interval
Low-risk therapy patient Nonphysician therapist vs psychiatrist	2.01[b]	1.06 to 3.79	2.10[b]	1.07 to 4.09
High-risk therapy patient Nonphysician therapist vs psychiatrist	1.98	0.56 to 7.05	2.02	0.54 to 7.52
Low-risk medication patient Internist vs psychiatrist	4.95[c]	2.76 to 8.88	6.55[c]	3.01 to 14.28
High-risk medication patient Internist vs psychiatrist	2.68[b]	1.05 to 6.84	3.45[b]	1.18 to 10.09

[a]Adjusted for hospital site (psychiatric vs. general), weekly hours of outpatient care, and availability of staff assistance to contact patients.
[b]$p < .05$.
[c]$p < .001$.

Responses to Missed Appointments

Initial response. Table 2 displays clinicians' initial responses to a patient who misses an appointment. For all 4 patient scenarios, psychiatrists were initially less likely to take steps to contact a patient who missed an appointment than were nonphysician therapists or internists. High-risk patients provoked a more uniform initial response across clinician groups. Although only 19% of psychiatrists would call a low-risk psychopharmacology patient, 78% would call a high-risk patient. Overall, 78% to 90% of clinicians from the 3 groups would initially call a high-risk patient who missed an appointment. For all patient scenarios, most clinicians would initially call or wait; very few would exercise the option of writing or contacting others.

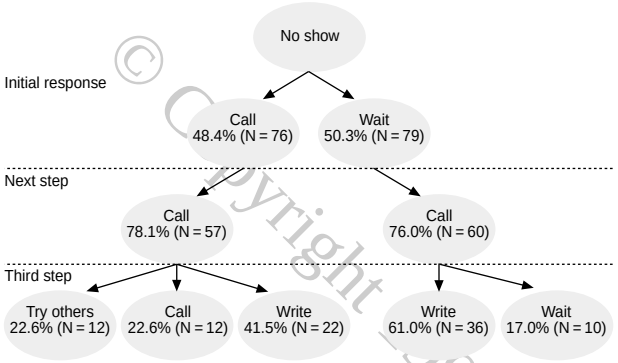
As shown in Table 2, initial responses to a low-risk therapy patient differed by clinician group (Fisher exact, $p = .013$). Post-hoc comparisons indicated that this difference was due to psychiatrists' being less likely to take any action to contact the patient ($p = .04$). For those who did take steps to contact a "no-show," psychiatrists and nonphysician therapists did not differ in their choice of action (i.e., call the patient, write, or call others). Psychiatrists and nonphysician therapists did not differ in their initial response to a high-risk therapy patient.

Among psychiatrists, all of those who would initially wait for a low-risk therapy patient to call and reschedule would do the same for a low-risk medication patient. However, of those 24 psychiatrists who responded to both the therapy and medication items and who would initially call a low-risk therapy patient, only 11 (45.8%) would also call a low-risk medication patient while 12 (50%) would wait for the patient to call and reschedule and 1 (4.2%) would write a letter to the patient (Fisher exact, $p < .001$). Thus, psychiatrists were significantly less likely to call a low-risk medication patient than they were to call a low-risk therapy patient who missed an appointment.

Internists were more likely than psychiatrists to take steps to contact a low-risk medication patient rather than waiting for the patient to call and reschedule (Fisher exact, $p < .001$). Of those clinicians who did take steps to contact the patient, internists and psychiatrists did not differ in their choice of action. For a high-risk medication patient, internists were again more likely to attempt to contact the patient (Fisher exact, $p = .05$). Post-hoc comparisons also showed that, compared with internists, psychiatrists were more likely to try to contact others (family, other treaters) than to write to a high-risk medication patient ($p = .012$).

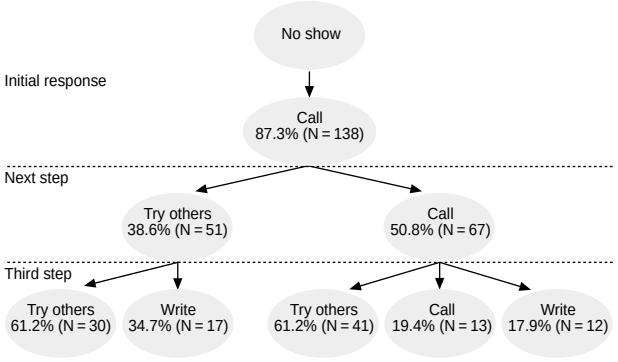
Univariate and bivariate logistic regression analyses were performed to identify variables that were either important predictors or potential confounders of clinicians' initial response to "no-show" patients. For each of the patient scenarios and clinician groups, Table 3 displays

Figure 1. Steps Taken by Therapists (Psychiatrists and Nonphysician Therapists) in Response to "Low-Risk" Therapy Patients Who Miss Appointments*



*Percentages refer to the proportion of respondents at each step (contingent on response at the previous step) who selected a given response. Only responses chosen by at least 15% of respondents are shown. Differences in responses between psychiatrists and nonphysician therapists are discussed in the text.

Figure 2. Steps Taken by Therapists (Psychiatrists and Nonphysician Therapists) in Response to "High-Risk" Therapy Patients Who Miss Appointments*



*Percentages refer to the proportion of respondents at each step (contingent on response at the previous step) who selected a given response. Only responses chosen by at least 15% of respondents are shown.

crude and adjusted odds ratios (OR) indicating the likelihood that clinicians would take steps to contact a patient after a missed appointment. Only the clinicians' initial response (rather than "next step" or "third step" responses) were considered. Adjusting for hospital site (general vs. psychiatric), weekly hours of outpatient care, and availability of staff assistance to contact patients, psychiatrists were significantly less likely to try to contact a patient after a missed appointment in 3 of the 4 patient scenarios. Nonphysician therapists were more than 2-fold (OR = 2.1) more likely to try to reach a low-risk therapy patient than were psychiatrists. Internists were 6.6 times more likely than psychiatrists to try to contact a low-risk medication patient and 3.5 times more likely to try to reach a high-risk medication patient.

In this same analysis, hospital site appeared to be an independent predictor of response to a therapy patient. Adjusting for clinical discipline (psychiatrist vs. nonphysician therapist), weekly hours of outpatient care, and availability of staff assistance, mental health clinicians at the psychiatric hospital were more than twice as likely (OR = 2.15, 95% CI = 1.01 to 4.56, $p < .05$) to try to contact a low-risk therapy patient at the time of a missed appointment than were mental health clinicians at the general hospital. This difference persisted after adjustment for billing practices (OR = 2.27, 95% CI = 1.01 to 5.08, $p < .05$). In addition, psychiatrists at the psychiatric hospital were more than 3 times more likely to try to contact a low-risk medication patient at the time of a missed appointment than were psychiatrists at the general hospital (OR = 3.30, 95% CI = 0.98 to 11.1, $p = .05$).

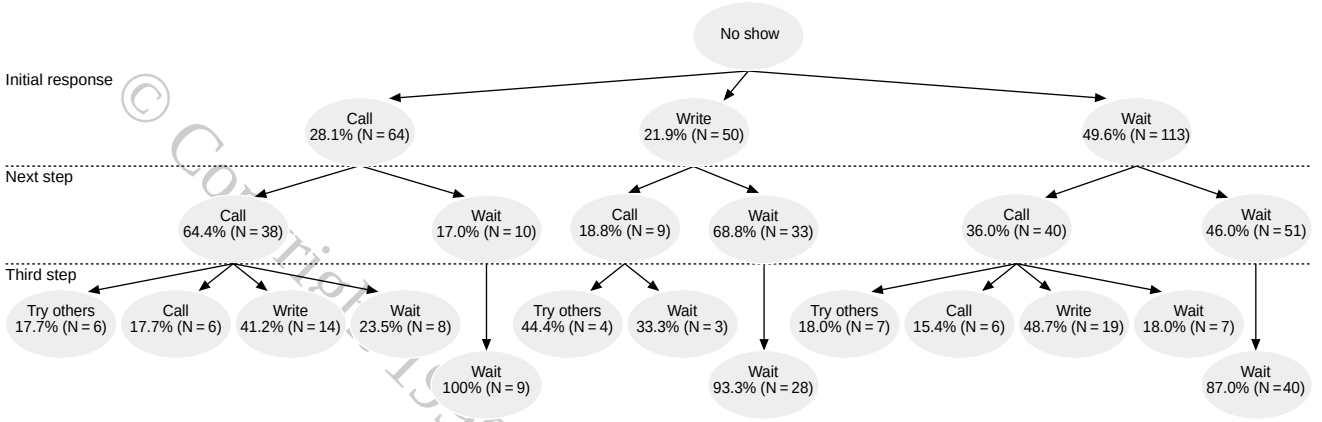
Sequential responses to "no-shows." Clinicians were asked what they would do after their initial response if they did not hear from the patient by the time the patient would be due for his/her next visit or medication refill ("next step"). They were then asked what they would do if they had not made contact with the patient despite these efforts ("third step"). Figures 1–4 depict clinicians' sequential responses to each of the 4 "no-show" scenarios. Only responses chosen by at least 15% of the sample or subsample at each step are depicted.

Most mental health clinicians (psychiatrists and nonphysician therapists)—78.1% of those who would initially call and 76.0% of those who would initially wait for the patient to call—would now call a low-risk therapy patient if they had not heard from the patient by the time of the next appointment (Figure 1). There were no significant differences between psychiatrists and nonphysician therapists in their responses to a low-risk therapy patient after the initial response.

Although most clinicians (87.3%) would initially call a high-risk therapy patient, as a next step, only 50.8% of these clinicians would again try calling the patient, while 38.6% would try to reach others who know the patient (Figure 2). There were no significant differences between psychiatrists and nonphysician therapists in their handling of high-risk therapy patients at any point.

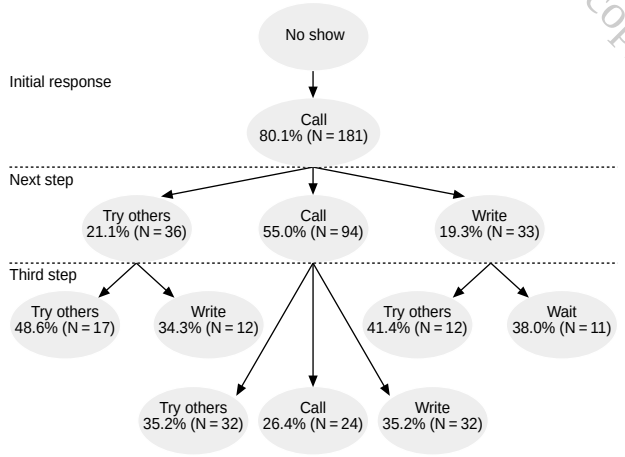
As Figure 3 shows, there was considerable variability in clinicians' responses to a low-risk pharmacotherapy/

Figure 3. Steps Taken by Psychiatrists and Internists in Response to "Low-Risk" Psychopharmacology/Medical Patients Who Miss Appointments*



*Percentages refer to the proportion of respondents at each step (contingent on response at the previous step) who selected a given response. Only responses chosen by at least 15% of respondents are shown. Differences in responses between psychiatrists and internists are discussed in the text.

Figure 4. Steps Taken by Psychiatrists and Internists in Response to "High-Risk" Psychopharmacology/Medical Patients Who Miss Appointments*



*Percentages refer to the proportion of respondents at each step (contingent on response at the previous step) who selected a given response. Only responses chosen by at least 15% of respondents are shown. Differences in responses between psychiatrists and internists are discussed in the text.

medical patient. Initially, nearly half (49.6%) would wait for the patient to call and reschedule, while 28.1% would call the patient and 21.9% would write to the patient. Analysis by specialty indicated that internists were initially more likely than psychiatrists to take steps to contact a low-risk medication patient (65.0% vs. 27.2%; Fisher exact, $p < .001$). However, after an initial attempt at calling the patient, psychiatrists were more likely than internists to take further steps to contact the patient (100% vs. 76.2%; Fisher exact, $p < .05$). Of those who would initially wait for a low-risk medication patient to call and reschedule, psychiatrists were again more likely than internists to try to contact the patient as a "next step" (69.8% vs. 33.3%; Fisher exact, $p < .001$).

As shown in Figure 4, most clinicians (80.1%) would initially try to call a high-risk medication patient after a missed appointment. If this did not succeed, most of these clinicians (55.0%) would again try calling the patient as a "next step." Pairwise comparisons within this group indicated that compared to internists, psychiatrists were more likely to call others (family, other treaters) than to write to the patient (Fisher exact, $p < .001$) and more likely to write to the patient than to call the patient (Fisher exact, $p < .001$). Among those who would write as a "next step," psychiatrists were more likely than internists to continue to try to reach the patient (Fisher exact, $p < .05$).

Of note, for all 4 patient scenarios, the majority of clinicians indicated that they would make some effort to contact a high- or low-risk "no-show" patient at at least 1 of the 3 opportunities (initially, at the "next step," or at the "third step"). Fewer than 5% of clinicians indicated that they would take no steps to contact a low-risk therapy patient (3.4%), high-risk therapy patient (0.7%), or high-risk medication patient (2.9%) at any point. However, 15/63 (23.8%) of the psychiatrists and 25/59 (42.4%) of the internists ($\chi^2 = 4.76$, df = 1, $p = .03$) who answered all 3 stages of questions about the low-risk medication patient indicated that they would take no action at any point following a missed appointment.

Influence of Clinician Characteristics

We compared the influence of several characteristics of clinicians' practices on their responses to "no-shows." For these analyses, we dichotomized the initial responses to missed appointments into (1) taking any steps to contact a patient (calling the patient, writing, calling others) versus (2) waiting for the patient to contact the clinician.

Clinical orientation (psychodynamic, biological, cognitive-behavioral or other) of mental health clinicians appeared to be an important predictor of response to therapy patients who miss appointments. Those who considered their predominant clinical orientation to be "medical model/biological" were significantly less likely to take steps to contact a low-risk therapy patient (OR = 0.33, 95% CI = 0.15 to 0.73, $p < .01$) or a high-risk therapy patient (OR = 0.20, 95% CI = 0.045 to 0.88, $p = .03$) after a missed appointment than were those with other clinical orientations. Overall, 27.0% of clinicians who reported having a psychotherapy practice identified their primary clinical orientation as "medical model/biological." Psychiatrists' clinical orientation did not predict their response to low- or high-risk medication patients (analysis not shown).

The number of **years of clinical experience** was related to response only for the low-risk medication patient scenario in which more experienced clinicians were more likely to contact the patient after a missed appointment (OR = 1.02, 95% CI = 1.0 to 1.05, $p < .05$). The number of **hours per week devoted to outpatient care** was unrelated to initial response to a missed appointment for any of the 4 patient scenarios.

Practice setting (hospital-based, private practice, community clinic, or other) was also not related to the likelihood of contacting a "no-show" patient except that mental health clinicians based at the psychiatric hospital were more than twice as likely to try to contact a low-risk therapy patient after a missed appointment than were those based at the general hospital (OR = 2.36, 95% CI = 1.18 to 4.71, $p = .015$).

As shown in Table 4, clinicians differed in their **billing practices** regarding missed appointments. More than half of psychiatrists and nonphysician therapists sometimes or always bill for missed appointments compared with only 5% of internists ($p < .001$). When comparing the 2 hospital sites, 75.0% of mental health clinicians at the private psychiatric hospital reported that they sometimes or always bill for missed appointments compared with 51.8% at the general hospital ($\chi^2 = 9.2$, df = 1, $p = .002$). Billing practices were not related to clinicians' initial responses to low-risk therapy patients or to medication patients.

Table 4. Billing Practices for Missed Appointments

	Psychiatrist		Nonphysician Therapist		Internist	
Practice	N	%	N	%	N	%
Always	9	9.2	14	17.5	0	0
Sometimes	48	49.0	36	45.0	7	5.1
Never	41	41.8	30	37.5	131	94.9

However, those mental health clinicians who bill for missed appointments were nearly 8 times more likely to take steps to contact a high-risk therapy patient after a missed appointment compared with those who never bill (OR = 7.94, 95% CI = 1.65 to 38.2, $p = .01$). Billing practices did not differ by clinical orientation.

Internists were much more likely to have **office staff** available to call patients regarding appointments: 81.4% of internists reported that staff assistance was available to them compared with only 21.1% of psychiatrists and 10.2% of nonphysician therapists (Fisher exact, $p < .001$). The availability of staff assistance was an important predictor of clinician response only for the low-risk medication patient scenario. Clinicians who had staff available to call patients were 3 times more likely (OR = 3.14, 95% CI = 1.76 to 5.62, $p < .001$) to try to contact such a patient than were those without the availability of staff assistance.

Influence of Other Clinical Variables

Clinicians were asked to rate the impact of a variety of other clinical variables on their response to "no-shows." Because the responses to the Likert-type questions were not normally distributed, the Kruskal-Wallis test was used to compare the 3 groups and post-hoc comparisons were made using the Wilcoxon rank sum test (Table 5). Overall, clinicians rated the degree of the patient's risk as the most important variable influencing their response to a missed appointment. Post-hoc comparisons indicated that psychiatrists and nonphysician therapists are significantly more influenced by medicolegal issues ("medicolegal concerns," "recommendations of risk managers"), method of payment, and the advice or teaching of supervisors than are internists ($p < .005$ for all comparisons). Finally, nonphysician therapists are more influenced by previous good or bad outcomes than are internists ($p = .002$).

DISCUSSION

This study is the first attempt (to our knowledge) to ascertain clinicians' responses to "no-shows" and as such should be considered preliminary and exploratory.

We found marked variability in clinicians' responses to missed appointments, particularly in regard to patients who are considered low-risk. Although most respondents would attempt to reach a "no-show" at some point after a missed appointment, psychiatrists appeared to be the slowest of the 3 clinician groups to take steps to contact patients who miss appointments. For the low-risk therapy patient, psychiatrists were 2-fold more likely to wait for the patient to contact them as an initial response to a "no-show" compared with nonphysician therapists. Compared with internists, psychiatrists were initially even less likely to try to contact low- or high-risk "no-show" patients. The reason for these different patterns is not clear, and they held despite adjusting statistically for hospital affiliation, availability of support staff, and clinical workload. However, for a low-risk medication patient who has not been heard from by the time of the next appointment or medication refill, psychiatrists who initially waited become more active in contacting patients.

Table 5. Influence of Other Clinical Variables*

Variable	Psychiatrist Mean	Psychiatrist SD	Nonphysician Therapist Mean	Nonphysician Therapist SD	Internist Mean	Internist SD	Kruskal-Wallis p Value
Degree of patient's risk	4.81	0.54	4.77	0.70	4.64	0.83	.43
Medicolegal concerns	3.51	1.16	3.56	1.08	3.03	1.22	.002
Patient's history of attendance with appointments and treatment	3.75	0.96	3.91	0.99	3.64	0.97	.11
How busy you are clinically	2.41	1.19	2.17	1.03	2.42	1.18	.35
Method of payment (e.g., private vs clinic)	1.47	1.01	1.47	0.90	1.12	0.51	.03
Experience of good or bad outcomes with patients	3.48	1.14	3.77	1.09	3.18	1.32	.01
Advice/teaching from supervisors	3.33	1.17	3.43	1.11	2.33	1.15	.0001
Recommendations of risk management advisors	2.82	1.20	3.01	1.26	2.30	1.22	.0002

*Ratings based on Likert scale ranging from 1 ("not at all influential") to 5 ("extremely influential").

In multivariate analyses, billing practices did not account for the initial response of psychiatrists to missed visits, but billing practices may play a role in the handling of some "no-shows." We found that for a high-risk therapy patient, clinicians who bill for missed appointments were initially nearly 8 times more likely to try to contact a patient after a missed appointment. The explanation for this rather striking finding is not clear. Perhaps clinicians feel more obligated to reach out to patients whom they may bill for a missed appointment. Alternatively, it may be that both billing for missed appointments and more aggressive follow-up are part of a clinical strategy to encourage greater appointment compliance among high-risk patients. As expected, internists were much less likely than mental health clinicians to report that they sometimes or always bill for missed appointments.

The influence of "institutional culture" may also be a factor in clinicians' responses to "no-shows." Mental health clinicians affiliated with the psychiatric hospital were initially more likely to try to contact a "no-show" therapy patient and psychiatrists at the psychiatric hospital were more likely to try to contact a "no-show" psychopharmacology patient.

Clinicians from all 3 disciplines reported that the patient's degree of risk was the most influential variable in their response to missed appointments. However, mental health clinicians were more motivated by medicolegal concerns than were internists. The medicolegal aspects of "no-shows" may, indeed, be salient for mental health providers given that some court decisions have held them responsible for their patients' behavior outside of the office. For mental health providers, a missed appointment may trigger concerns about suicide, a common reason for malpractice litigation. However, there are no data to our knowledge indicating that clinician follow-up of "no-shows" reduces suicide rates. Moreover, a recent analysis found that, among patients who commit suicide within a month of a health care appointment, fewer than one quarter of patients disclosed suicidal intent during their last appointment.[8]

We were not able to examine the impact of several other variables that might influence clinician responses to "no-shows." For example, at the time of the survey, there was no official protocol at either hospital regarding clinicians' responses to missed appointments. The institution of such policies might be useful for standardizing follow-up procedures. Because the clinicians surveyed were based at 2 teaching hospitals, we were also not able to compare the influence of different reimbursement structures such as capitation and staff-model HMOs. Finally, the impact of differences in actual "no-show" rates was not examined because reliable data on these rates were not available.

The relative paucity of information about clinicians' handling of "no-shows" is surprising in light of the documented frequency of missed appointments. In a meta-analysis of studies available through 1990, Macharia and colleagues[3] reported that the average rate of compliance

with appointments was only 58%. In 1 of the only studies to address the nature of clinician interventions after a missed appointment, Lowe[9] compared the effectiveness of either (1) a follow-up letter asking the patient to reschedule, (2) a letter automatically rescheduling a follow-up appointment, or (3) no follow-up. For a sample of 69 therapy patients at a community mental health center, she found that the automatic-reschedule letter was the most likely to result in patients' returning to the clinic. However, the subsequent "no-show" rate by patients who received this letter was also highest. She concluded that letters requesting the patient to call and reschedule were no more effective than no follow-up. In our study, the outcome of clinicians' interventions is unknown; the development of effective strategies to deal with this issue is an important clinical concern.

A number of limitations of the present study deserve attention. First, the results are based on clinicians' reports about their behavior rather than direct observation. Although the anonymity of the survey was intended to minimize social desirability biases, clinicians' self-reports are an imperfect index of their behavior in the variety of contexts in which "no-shows" occur. Second, the survey was restricted to a sample of clinicians at 2 teaching hospitals, and the results may not be generalizable to clinicians elsewhere. Third, only 40% of clinicians who were mailed the survey responded. Although response rates were constant across clinical disciplines and hospital sites, the possibility of response bias exists in that nonrespondents may differ systematically from respondents. For example, if nonrespondents to the survey are also less likely to take steps to contact patients, this might lead to an overestimation of the frequency of attempts to contact patients. In designing the study, we felt that the risk of nonresponse bias was offset by the potential gain in response accuracy by assuring clinicians (many of whom were colleagues) that their responses would remain anonymous. Future studies might address the possibility of incomplete response rates and response bias by performing a review of randomly selected charts to determine whether documented behavior differs from the patterns reported here.

The findings presented here must also be considered in light of the multiple analyses and comparisons that were made. The possibility of type I error in some of the significant results must be acknowledged. However, the goal of this study was one of hypothesis generation and exploration so that correction for multiple comparisons might have had the undesirable effect of obscuring interesting trends in the data.

In summary, in a survey of mental health and internal medicine clinicians, we found considerable variability in clinicians' responses to "no-shows." Initially, after a missed appointment, psychiatrists were less likely than nonphysician therapists or internists to take steps to contact patients. For patients considered to be high-risk, more than 80% of clinicians surveyed would initially call the patient after a missed appointment, but for low-risk patients, responses were more varied. A number of clinical variables, including billing practices, hospital affiliation, medical model orientation, availability of support staff, and medicolegal concerns, were related to the choices clinicians made about handling "no-show" patients. However, the influence of these mediating variables differed depending on the type of clinician and the degree of perceived risk of the patient. In seeking a standard of care for handling missed appointments, professional groups and risk managers will have to account for the variability and complexity of clinicians' usual practices. At this point, it may be that a standard of care will be difficult to "standardize."

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Instructions

Psychiatrists may receive 1 hour of Category 1 credit toward the American Medical Association Physician's Recognition Award by reading the article starting on page 330 and correctly answering at least 70% of the questions in the quiz that follows.

1. Read each question carefully and circle the correct corresponding answer on the Registration form.
2. Type or print your full name, address, phone number, and fax number in the spaces provided.
3. Mail the Registration form along with a check, money order, or credit card payment in the amount of $10 to: Physicians Postgraduate Press, Office of CME, P.O. Box 752870, Memphis, TN 38175-2870.
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1. Overall, which of the following had the greatest impact on clinicians' responses to "no-shows"?
a. Years of clinical experience
b. Patient's degree of risk
c. Clinical workload
d. Billing practices
e. Clinical orientation

2. Compared with internists, mental health clinicians:
a. Were more influenced by medicolegal issues
b. Relied more on office staff to contact patients
c. Were less likely to follow-up on "high risk" patients
d. Answers a and b only
e. Answers a, b, and c

3. Clinicians' responses to missed appointments:
a. Were most varied in the case of "low risk" therapy patients
b. Were most varied in the case of "low risk" medication patients
c. Were most influenced by professional standards of care
d. Were shown to affect treatment compliance
e. Did not differ between the general hospital and the psychiatric hospital

4. When a high-risk patient misses an appointment, most clinicians reported that their first response would be to:
a. Write the patient a letter
b. Wait for the patient to call and reschedule
c. Call others who know the patient (e.g., family, other treaters)
d. Call the patient
e. Document the missed appointment

5. Based on this study:
a. Psychiatrists appear to be more active than other clinicians in contacting "no-show" patients
b. A standard of care has been defined for responding to missed appointments
c. Calling patients appears to be the most effective strategy for reducing "no-shows"
d. Very busy clinicians appear to be least likely to follow up with "no-show" patients
e. There appears to be considerable variability in clinicians' response to missed appointments

6. For therapy patients who are considered "high risk":
a. Mental health clinicians who bill for missed appointments were more likely to take initial steps to contact a "no-show" patient
b. Calling the patient appeared to interfere with progress in therapy
c. Psychiatrists at the general hospital were less likely to follow-up than were those at the psychiatric hospital
d. Answers a and c only
e. None of the above

7. This study was not able to determine:
a. Whether clinicians' self-reports matched their actual behavior
b. Which response to missed appointments is most effective
c. Whether there was response bias in the results of the survey
d. Whether malpractice liability is affected by response to "no-shows"
e. All of the above

Answers to the December 1997 CME quiz

1. b 2. e 3. a 4. d 5. c 6. c 7. a

Circle the one correct answer for each question.

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2.	a	b	c	d	e
3.	a	b	c	d	e
4.	a	b	c	d	e
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   A. Enabled me to realize that little empirical research exists on how clinicians respond to missed appointments. ❑ yes ❑ no
   B. Enabled me to assess the impact of patient and clinician characteristics on clinician response to "no-shows." ❑ yes ❑ no
   C. Enabled me to discuss findings of the current study and their implications for establishing a "standard of care." ❑ yes ❑ no
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