The Use of a "Mystery Shopper" Methodology to Evaluate Children's Access to Psychiatric Services

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Introduction

Mystery shoppers are individuals hired to pose as a typical consumer to provide reports of services provided, along with consumer experiences and reactions.[1,2] While historically this technique has been used in retail services, it has recently been applied as an assessment tool in healthcare facilities.[1,3] In the medical field, mystery shoppers are often referred to as "pseudo-patients" or "simulated patients" as they present to various healthcare settings posing as a patient with a fictional condition or with medical questions.[4]

This study aims to describe the utility of a mystery shopper approach for assessing the ease of, and time needed for a child to get a routine appointment with a child psychiatrist. First, we consider whether the methodology can be conducted effectively and efficiently—that is, with limited research staff, without being detected, and without imposing a significant administrative burden on participating psychiatry offices. Second, we assess whether the mystery shopper approach can generate useful data for measuring access to care. Specifically, we anticipated that children would

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need to wait several months to get an appointment with a child psychiatrist. Additionally, we expected that patients with Medicaid would have longer wait times compared to those with private insurance.

Children's Access to Psychiatric Care

Evidence suggests that in many locales in the United States, it is extremely difficult to access children's psychiatric services in a timely manner. Since 2009, substantial cuts have occurred in state general funding of mental health services across all 50 states and the District of Columbia.[5] These cuts have occurred even as the need for mental health services has increased. A national survey of maltreated children found that only one fourth of children who presented with strong clinical need for services had received any mental health services in the previous 12 months.[6] While such unmet needs are pervasive, other national studies document marked variation in children's access to mental health care by location[7] as well as ethnicity[8] and insurance status.[9]

Such research is invaluable for guiding mental health policy, yet surveys and chart reviews require considerable time and money to conduct. Instead, local health systems and agencies need to consider other, less expensive approaches to collecting timely data on access to mental health care. Mystery shoppers may be one such methodology.

Previous Studies with Mystery Shoppers

Simulated patients have been used to evaluate the service provided by clinicians, the knowledge of medical staff, the healthcare information provided to patients, and other available services.[1,3,4,10,11] As a research tool, this method can assess and improve current practice performance.[1,3,10,12] However, little information is available concerning the use of mystery shoppers or simulated patients to determine medical service accessibility or wait times for clinical appointments. One recent exception is a Chicago-area study of children's access to eight types of specialty care, including psychiatry.[13] Using otherwise identical scripts, mystery shoppers who reported having Medicaid coverage were less likely than those with private insurance to be able to have their children scheduled for a psychiatrist appointment.

Mystery shopping is a valid and reliable assessment method, yet is more cost-effective than using customer surveys.[2,12] Instead of recruiting participants, the mystery shopper role can be filled by students, hired individuals, or the research staff members themselves. The training and number of mystery shoppers used can vary depending on the nature of the information being gathered in each study.[2,3] Researchers are also able to compare multiple sites as well as manipulate scenarios to meet the needs of the study and answer questions that cannot be obtained without introducing bias.[2,4,12] Specifically, the use of mystery shoppers eliminates selection bias that may be present when "real" patients are recruited and the Hawthorne effect, present when the healthcare staff are aware they are being monitored.[10,11] Additionally, the flexibility of using mystery shoppers allows a company or research program to focus on a specific question or area of improvement.[1,10]

In the medical area, mystery shopper data can be used to improve the overall practice and care provided.[3,14] The mystery shopper technique has been used to evaluate the service and knowledge of healthcare providers in several pharmacy-related studies[3,4,11] and has been recommended for studies of psychiatric services as well.[10] Yet there have been few studies of less intensive mystery shopper approaches that only aim to assess service accessibility and availability. Whereas children's access to psychiatric care has been mostly documented through survey research,[6–9] mystery shoppers may offer an alternative approach that can offer valid data on this topic much more quickly and inexpensively. Aside from one recent study that assessed overall pediatric

specialty access,[13] to our knowledge this study represents the first published example of using mystery shoppers to assess access to care in child psychiatry.

Methods

The study was conducted by [blinded for peer review] and was approved by the Ohio State University Institutional Review Board. Six academic medical centers providing training in child psychiatry were contacted. Those centers include more than 80% of all practicing child psychiatrists in the State. The Ohio Department of Mental Health funded the study because of its interest in improving primary care providers' ability to consult with, and refer its child and adolescent patients to psychiatrists for medication management. As such, the study focused on appointments with psychiatrists rather than with social workers or other mental health professionals.

A 43-year-old male member of the research team acting as a mystery shopper telephoned the psychiatric department office at each site monthly from December 2010 through March 2011. The mystery shopper followed a script (see Appendix) containing questions related to appointment availability. The script included questions about scheduling an appointment with a psychiatrist, as well as questions about the need to obtain a referral or an appointment with another clinician prior to seeing a psychiatrist. Additionally, the mystery shopper asked questions concerning the expected wait time for the next available appointment with a psychiatrist, and, if unable to schedule an appointment, information about other available care options. If the office asked for identifying information, the mystery shopper explained that he was not ready to make an appointment. Rather, he just wanted to learn how long the wait would be and how the process would work.

The mystery shopper posed in one of two roles; Role A involved a parent with private insurance for a 16-year-old daughter on medication for depression; Role B involved a parent with Medicaid for an 8-year-old son on medication for attention deficit hyperactivity disorder (ADHD). With the two roles, we completed eight telephone calls for each site over four months. By phoning on different days each month, at different times of the day, the mystery shopper aimed to encounter different office staff members who fielded the calls. Given the high volume of calls received by each office, we anticipated few problems with a staff member recognizing the voice of the mystery caller from previous calls. The research member also made calls from different personal phones, rather than a university phone to avoid arousing suspicion through caller ID.

The mystery shopper recorded details of each call including the number of phone calls and total minutes required to complete the process of assessing availability of services, the expected wait time for an appointment, any referral requirements, and an assessment of the choices offered for making a new appointment with a psychiatrist. If the clinic was unable to schedule an appointment for the mystery shopper, an explanation was requested and the answer recorded (e.g., the office does not accept Medicaid). In many cases, an office required a patient to have a visit with another clinician before a psychiatrist could see the patient, in which case the wait time was the total wait time estimated among the multiple clinicians to finally see the psychiatrist. Data were recorded on a spreadsheet, including such information as a time stamp that marked the beginning and end of each telephone call.

Assessing each site monthly over four months yielded more reliable data on typical appointment wait times and other measures than if data had been collected only on a single occasion. Given the relatively small number of repeated measures (n=4) for each role at each site, findings were summarized as a median to reduce the influence of outliers and also to assess the consistency of data over time.

After data collection was completed, a debriefing letter was sent to the director of each of the six sites. The letter explained the mystery shopper process, described its IRB approval, and assured them that individuals and sites would not be publicly identified. In addition, office staff at each site

were telephoned, debriefed and provided an opportunity to discuss any questions or concerns regarding the study.

Results

The study results are organized around two questions. First, could the mystery shopper survey be conducted effectively and efficiently—that is, with limited research staff, without being detected and without imposing a significant administrative burden on participating psychiatry offices? Second, can the mystery shopper approach generate useful data for assessing access to care?

Was the Mystery Shopper Survey Effective and efficient?

The mystery shopper was able to schedule psychiatrist appointments for each role in each site across all four months. In some instances, it was necessary to make multiple phone calls to follow an office's referral suggestions if they were unable to schedule an appointment—typically because they did not accept the insurance type or were no longer taking new patients. Even so, collecting data for all 48 cells (i.e., 2 roles×6 sites×4 months) only required a total of 347 minutes on the telephone—or just over 7 minutes for each data point. In summary, it was possible to collect the data with limited staff resources.

In a debriefing interview, the mystery shopper reported that he felt that no psychiatry office staff ever detected the true research purpose of his inquiry. Similarly, debriefing sessions with receptionists at the participating psychiatry offices indicated that they were unaware that the study had been conducted. Based on this information, the data appear to be unbiased and reflect the real-world experience of a parent seeking psychiatric care for a child.

In the debriefing sessions, psychiatry office staff also reported that the burden associated with them participating in the study was imperceptible. This was borne out by the mystery shopper's own call data. With an average of only 7 minutes to complete each data point, the greatest possible burden for a single office would have been less than 15 minutes of staff time per month. In reality, the total was likely considerably less, since much of this time was spent on hold or was split among calls to different offices. In summary, the mystery shopper approach did not impose a significant administrative burden on participating psychiatry offices.

Did the Mystery Shopper Survey Yield Useful data?

Across both roles, the median wait time for an appointment was 60 days, or about two months. Wait times varied by site, however, with some reporting a 7-day wait, and others reporting a 5-month wait (Table 1). Wait times within each site were relatively consistent across the four months of the study period. Most marked departures from the median occurred when, on a given month, the office initially called in a city was not able to schedule an appointment with a psychiatrist. When they referred the mystery shopper to another office in that city, the wait times occasionally differed from the wait times recorded in the initial office during other months.

Wait time also varied by role. In cities A, C, E, and F, wait times for a private insurance patient with depression were considerably shorter than for a Medicaid patient with ADHD (Table 1). Curiously, in city B, the opposite was true; a difference likely attributable to the presence of a new, grant-funded clinic specifically devoted to medication management of ADHD (a clinic that accepted both private insurance and Medicaid). Overall, however, we believe the differences in wait times are attributable to insurance status. Excluding city B, the median wait time for private insurance patient with depression was 18 days, compared to 76 days for a Medicaid patient with ADHD.

Table 1

Median, minimum and maximum wait times (in days) for an appointment with a child psychiatrist in six Ohio cities (A–F), December 2010–March, 2011: differences by insurance type and condition

	A	B	C	D	E	F
Private insurance/depression						
Median	58	135	7	150	18	11
Minimum	18[a]	60	4	90	14	11
Maximum	60	180	14	165	60[a]	13
Medicaid/ADHD						
Median	75	34	25	157	76	75
Minimum	56	18	18[a]	90	56	49
Maximum	90	180[a]	33	165	85	90

[a]Wait time at an office that differed from the office typically assessed in that city. For example, the minimum wait of 18 days for the "private insurance/depression" role in city "A" was based on a different office in that city compared to the office in that city assessed at other times. This occurred when the office we initially contacted during that month reported it was unable to schedule an appointment and so referred us to another office

At most sites, it was relatively easily to arrange an appointment. Doing so typically required only one to two phone calls and less than 10 minutes on the telephone (Table 2). In city "E" however, the process was more difficult, especially for patients with private insurance. In this area, the initial office called would not accept private insurance and so referred the caller elsewhere. Because offices were uncertain which other offices accepted which insurance, it often took several calls to find an office that accepted private insurance.

Discussion

This study found that the mystery shopper methodology is an effective and efficient way to determine service accessibility in child psychiatry. Especially compared to other approaches like patient surveys, medical record reviews, or analyzing claims data, the mystery shopper approach allowed us to successfully collect data despite limited resources. Designing the project and

Table 2

Ease of scheduling appointments with a child psychiatrist: median number of telephone calls required and median total call duration to schedule an appointment in six Ohio cities (A–F), December 2010–March, 2011

	A	B	C	D	E	F
Private insurance/depression						
# of calls	3	1	1	1	5	2
Total call wait time (minutes)	9	3	4	4	13	7
Medicaid/ADHD						
# of calls	2	2	2	1	2	1
Total call wait time (minutes)	6	9	7	4	8	3

securing IRB approval required four months, while data collection and analysis was completed within six months. In short, the project cost only $26,000 in direct costs and yielded valuable information within ten months, start to finish. Local health systems and agencies that can afford a comparable investment may find mystery shopper surveys a worthwhile activity to plan and evaluate efforts to improve access to mental health care.

Moreover, the sponsoring state agency found the results very useful (personal communication, HelenAnne Sweeney, Ohio Department of Mental Health, May 29, 2011). The sponsors were pleased to acquire concrete evidence that wait times for routine psychiatric care are often intolerably long—up to five months at some sites. Also, as expected, wait times for patients on Medicaid were longer those for patients with private insurance—a finding consistent with other studies based on surveys.[6,9] Nonetheless, encouraging findings from one location (site C) suggest that shorter appointment wait times are possible for specific conditions. The report that one site consistently required more effort to find any appointment, is prompting different sites to evaluate the clarity of their automated phone directions and referral procedures.

Improving Mystery Shopper Surveys

Given our meager resources, the study had several limitations. The mystery shopper's two roles (i.e., private insurance/depression vs. Medicaid/ADHD) conflated two variables: insurance type and condition. Future studies should consider using multiple roles that can distinguish each variable's effect on access to care (if, for example, our scenario had only included one condition, we would have been less likely to document the effect of the ADHD clinic in site B). While insurance type is clearly important, it may also be worthwhile to test scenarios with different mental health conditions. Efforts to increase access to mental health care are often condition-specific, so mystery shopper surveys may be useful in their planning and evaluation.

The study's small scope was another limitation. Although our study involved sites that account for 80% of Ohio's child psychiatrists, we did not examine rural areas where access to care concerns are particularly troubling.[7] Also, our methodology involved our initially calling only one office within each site. With greater resources, researchers should consider assessing more offices within each site in order to understand regional variation in access to care. Bisgaier and Rhodes's recent study, for example, included 40 randomly sampled clinics for each of the eight specialties they surveyed, although they focused on only one large metropolitan county.[13]

Researchers should also anticipate the ethical considerations of using mystery shoppers. A study's value and the lack of viable alternatives may preclude researchers' ability to obtain prior consent from those being observed and assessed.[2,3,15,16] Nonetheless, administrative staff at each site could potentially suffer negative repercussions if a site's long wait times are publicized or if they inaccurately report office policy (e.g., one month, a staff member at one site reported that the office did not take Medicaid, even though calls during other months indicated that the office did accept Medicaid coverage). To protect participants, site managers should be assured that the identity of each site will not be publicly identified, so there would be no way to determine which staff person provided the relevant information.

Implications for Behavioral Health

Our findings offer some implications for behavioral health. Many states are seeking to strengthen the capacity of pediatricians to care for children with mental health conditions.[17] Our results support the need for initiatives aimed at improving access to child psychiatry, such as Ohio's Pediatric Psychiatry Network—a telephone consultation service for primary care providers that is similar to the Massachusetts Child Psychiatry Access Project.[18] Mystery shopper surveys may be a cost-effective component of evaluating such programs, as they can document resulting changes in appointment wait times, psychiatrist offices' likelihood of referring pediatricians to available

consultation services, and other outcomes of interest. Similarly, mystery shoppers could help inexpensively and unobtrusively assess how other interventions (e.g., changes in health insurance policy) translate into real-world changes in access to child psychiatry.

Mystery shoppers may also be useful for planning efforts aimed at increasing access to care. Our results, while preliminary, detected marked variation in appointment wait times across different sites in Ohio. Whereas others have found that access to care varies from state to state,[7] local programs, systems, and environmental factors may contribute to significant differences *within* a single state. Thus, mystery shoppers can help determine where access to care concerns are greatest and identify local factors that affect access to care. In one city, for example, we found that a new clinic specifically devoted to medication management of ADHD meant that appointment wait times were much shorter for children with that condition compared to children with depression.

Compared to other research methodologies, mystery shopper surveys are relatively inexpensive and can yield useful data in child psychiatry. Given the many access to care concerns in this field, they represent an important approach for guiding intervention efforts.

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Conflicts of interest None.

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Appendix—Appointment Availability Assessment Script

Introductory statement

Hello, I'm calling to learn how to schedule an appointment with a child psychiatrist.

[Role A: My daughter has been on meds for depression but my doctor thinks she might need to adjust them.]

[Role B: My son has been on meds for ADHD but my doctor thinks he might need to adjust them]

Could I schedule an appointment with a psychiatrist?

[If "yes" or "yes, but you need a referral"—continue with (2) below]

[If "no"—continue with B1]

To make an appointment with a psychiatrist is it necessary to have a referral from a doctor?

(Role B only:) Can I get an appointment if I can only pay through Medicaid?

[If "yes"—continue with (5) below]

[If "no"—continue with (R1)]

(If I could get a referral), when is the next available appointment with a psychiatrist?

[Record exact date and time]

[If respondent cannot access appointment system without real information, ask, "about how long is the wait for such an appointment?"]

Would my child need to see another clinician before seeing a psychiatrist?

[If "no"—continue with (6) below]

[If "yes"—continue with C1]

Closing statement

Okay. Well thank you for your time.

B Module—If Program Cannot Schedule an Appointment

(B1) List reasons why appointment cannot be scheduled (check all that apply)

□ Not currently scheduling psychiatrists—none are available	*[go to (R1)]*
□ Only schedule appointments for urgent or emergent conditions	*[go to (R1)]*
□ Only schedule appointment for other mental health professionals, not psychiatrists	*[go to (C1)]*
□ Other _____	

C Module—If Patient Needs to See another Clinician before Seeing a Psychiatrist

(C1) When is the next available appointment with this other clinician?*[Record exact date and time][If respondent cannot access appointment system without real information, ask, "About how long is the wait for such an appointment?"]*

(C2) And after that appointment, about how long would the wait be to see a psychiatrist?*[Record response; then return to main survey and continue with (6)]*

Referral Module—Where Program Would Refer People they couldn't Schedule

(R1) So if I couldn't get a appointment with a psychiatrist, is there somewhere else you could refer me? Do you have a phone number?

[Record name and contact information]

[Later, follow up with calls to referred offices]

[Continue with (7)]