

Your Life in Their Pocket: Students' Behaviors Regarding Confidential Patient Information

Shilpa Jethwa, BSc, MBBS; Pauline Bryant, MBBS, MMed;
Surinder Singh, BM, MSc; Melvyn Jones, MBBS, MSc, MD;
Anita Berlin, MBBS, MA; Joe Rosenthal, MBBS, MSc

Background and Objectives: *Physicians are sometimes poor at observing patient confidentiality. Medical students have access to patients and their medical records, but there is little known about how well students respect patients' confidentiality. Our objective was to study how medical students deal with confidential patient information. Methods:* *Qualitative research methods (focus groups, semi-structured interviews, and direct peer observation of student activity) were used to explore the approach of medical students to patient confidentiality in a British medical school. Results:* *We interviewed 32 students, held focus groups involving 24 students, and undertook direct observation of student activity. The main themes derived from the data included the context within which students practice, variation in students' attitude and behavior toward patient confidentiality, and the dissonance between confidentiality theory and practice. Conclusions:* *While many students practiced in a professional manner, several reported markedly suboptimal performance in themselves or others. These behaviors appear to be driven by students' own professionalism and behavior learned from senior colleagues. While new technologies pose some particular threats to confidentiality, paper records seem just as vulnerable.*

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Physicians are bound by a duty of confidentiality to their patients, and this obligation is fundamental to the practice of medicine.¹ However, evidence exists of poor observance of patient confidentiality by physicians²⁻⁶ and has been highlighted recently with significant breaches of confidentiality reported in the United Kingdom (UK).⁷

Patients generally accept that “medical students . . . have access to confidential patient information . . . (if) students will behave professionally.”⁸ In one study, however, 50% of responding patients in a family practice felt students should not see their medical records.⁹

Medical students are considered to have the same duties of confidentiality as licensed physicians,¹⁰ although this duty is not a legal responsibility.¹¹ Teaching about confidentiality in UK medical schools is

overseen by the UK regulatory medical body—the General Medical Council (GMC)—which states that “Respect for patients' confidentiality is a core skill/attitude that students must acquire.”¹¹ Recent advice includes “Patients have a right to expect information about them to be held in confidence. A patient's case must not be discussed in a way that would identify them . . . outside the care team.” Breaches have led to students being denied promotion through the medical student curriculum.⁸

Teaching students about the need for patient confidentiality is widespread internationally but variably delivered.¹² At our university, it is part of students' professional development to learn about confidentiality with explicit guidance about the use of medical records with lectures and workshops in years 1–2 and reinforced later during clinical rotations during years 3–5.¹³

Learning about confidentiality is an example of situated learning,¹⁴ whereby students move from applying their lecture-acquired technical knowledge (knowing how) onto in the clinical setting (learning to do) in solving problems.¹⁵

From the Research Department of Primary Care and Population Health, University College London Medical School (all except Dr Bryant); and University of East Anglia (Dr Bryant).

There is limited literature about students' attitudes and behaviors toward patient confidentiality, coming largely from the classroom or exam setting. Weiss's survey suggests students have similar attitudes as professionals, with both breaching confidence in ways that patients would not expect.¹⁰ Students recognize breaches as ethically unacceptable¹⁶ but have difficulty applying this knowledge in clinical settings.^{17,18} Actual breaches of confidentiality by students are rare, however, though Graham reports incidents of breaching including students leaving patients' medical records on a train.¹⁹

In view of the limited information about how students deal with confidentiality of patient information, we set out to explore this important aspect of students' professional behavior, exploring both their theoretical and practical abilities.²⁰ Specifically, our objectives were to (1) determine students' knowledge and attitudes regarding the recording and use of confidential patient information and (2) observe and record students' practices regarding storage and disposal of confidential information.

Methods

Our study used qualitative methods including focus groups and semi-structured interviews, conducted by a fourth-year medical student, as a primary method of data collection.²¹ However, because of a concern that students might express (in focus groups in interviews) opinions that conform to expected behaviors,²² we also used direct observation of students' behaviors in live scenarios.²³

Recruitment of Participants

We sampled opinions from a range of students using two sampling techniques. For the focus groups, we recruited two groups of 12 students each by e-mailing students during one of their clinical rotations.²⁴ For the semi-structured interviews we used an opportunistic approach,²⁵ by interviewing students who were writing up their "clerkings" (a student version of a patient's record) in the library or in other medical school faculty locations.

Institutional research ethics committee approval was obtained, and consent was obtained from all students who participated in the study and for use of their quotes in subsequent reports. An information sheet was placed in a strategic position, allowing individuals to decline or object to participation at any point during the focus group or interview process, at which point the study could be suspended.

Focus Groups

The focus groups were facilitated by a student peer and were iterative, following a topic guide derived from the literature (Table 1). Focus group discussions were audiotaped and transcribed in detail, and field notes were made.

Semi-structured Interviews

We observed and interviewed students in the library and other locations about how they documented, stored, and discarded their medical notes ("clerkings"). Extensive field notes were written immediately after each interview. We also looked for discarded notes in public areas such as near photocopiers, on desks, and in the trash.

Data Analysis

The data consisted of transcripts and field notes. The word-processed transcripts were cut and pasted by hand on a large wall chart into themes and categories. A thematic analysis of the data was informed by the constant comparison method to develop and modify theoretical categories. The concepts were then coded and used to link segments of narrative to create categories with common properties. Finally, two researchers coded the transcripts into four emergent domains, in a process that was completed 3 weeks after the last interview.²⁶ The analysis was undertaken by a team of three: a senior medical student (the same individual who conducted the interviews) and two of the students' supervisors. These supervisors reviewed the same data and differences in interpretation of comments. Categorization of themes were resolved by discussion among the two supervisors and the student. A member-checking exercise (with

Table 1

Questions in the Focus Group Topic Guide

How do you make your patients' notes anonymous?
How do you record your patients' notes (written/personal digital assistant (PDA)/computerised)?
How do you store your medical notes/ charts?
Do you think about patient confidentiality when you are using patient identifiable data/clinical information?
Are you aware of any breaches or potential breaches of confidentiality with respect to medical students or your experience in clinical settings?

students who had not “rotated off” campus) was carried out but did not generate further data.

Results

Thirty-two students participated in this study. Twenty-four were in the focus groups, and the remainder were observed and interviewed in the “opportunistic” settings of the library and other locations (Table 2). Data saturation was achieved, and four themes were identified. Representative statements from the students are noted below.

Theme 1: The Context Within Which Students Practice

Culture of the Clinical Setting. Students have relative freedom of access to patients’ written and computer-held medical records in office and hospital settings. They rapidly developed awareness of and mirrored²⁷ the culture of confidentiality (or lack thereof) of their institutions, noting that “[You can] look through patients’ notes in the trolley and you rarely got questioned.” Some settings however, were perceived to have high levels of confidentiality, such as on “The labor (delivery suite) and pediatrics ward, where you . . . really do feel everyone is always checking ID.”

Hierarchy of Clinical Information Breaches. Students perceive a hierarchy of breaches of confidentiality, with one student noting that “There are different levels of confidentiality; you can’t expect us to be confidential about everything.” Perceived low-level breaches include copying bed/ward lists or accessing operating room schedules. This was felt to be legitimate, provided the lists are not subsequently discarded inappropriately, which is something that some respondents reported. Higher-level breaches were also perceived to occur.

Students’ Inherent Professionalism. There is evidence of students’ burgeoning professionalism.²⁸ Some students recount telling peers not to discuss patient matters

in communal areas, such as hospital elevators, noting that “When any member of the public [is] around, you never talk about confidential information.” This contrasts with some clearly unprofessional practice, as noted by one student who reported that another student said, “Guess who I saw in my GP’s office, and named a famous person, and we said ‘you can’t say that.’”

Some students were, however, unclear about what guidelines were in place and felt they were given conflicting advice. Others have only the loosest of recollections about guidelines, as demonstrated by a fourth-year student who said, “It’s probably written in one of our books, but how many people actually read that?”

Theme 2: Variation in Students’ attitudes and Behavior Toward Patient Confidentiality

We captured a range of behaviors showing varying levels of confidentiality. Some students reported throwing patients’ notes in the trash, which suggests that these students haven’t grasped basic aspects of confidentiality. Conversely, we saw other students demonstrating high competence levels, as demonstrated by one student who said, “I’m really conscious because I know people go through our bins (trash) . . . you should shred everything . . .”

Same Information: New Risks. Changing technology, particularly for students, has presented new risks to confidentiality. A recurrent theme seems to be the vulnerability of patient information on students’ computer systems. For example, one student reports that “My house (room) mate uses my computer, and . . . the title [of a file] will be the patient’s name.” Additionally, students are increasingly using USB memory sticks to carry around patient information, perhaps to record data before writing up their clerkings on a home computer. Students reported losing memory sticks; some reported losing laptop computers.

Theme 3: Dissonance Between Theory and Practice

There is clear evidence of a conflict between what students are taught and asked to do, versus what they see happening in clinical practice. Their attitudes are largely driven by the observed practice²⁸ and role modeling²⁷ from more senior doctors. Students are unlikely to question or challenge behavior of those who grade them, with one student noting that “You’re going to do what the consultant (attending physician) does because he’s going to mark (grade) us.” Students are perplexed by a range of observed poor professional practice that their supervisors exhibit, for example, “He made me present the patient’s case in the lift (elevator) . . . in front of all those people . . . which isn’t right.”

Table 2

Characteristics of Participants

Gender	Sampling Group	Clinical Year Group		Total
		Year 3 (First Clinical Year)	Year 4 (Second Clinical Year)	
Male	Focus group	1	9	10
	Opportunistic	1	3	4
Female	Focus group	4	10	14
	Opportunistic	3	1	4
Total		9	23	32

Why Do Students Keep Clinical Information About Patients? Beyond writing up their notes, there is a need for students to use and record patients' hospital numbers to access their radiology and pathology results or electronic records. They also keep lists of which patients they need to see, with one student noting that "On a ward round [the supervising doctors] are telling you [who] to clerk . . . if you write the initial . . ., you haven't got a chance of finding that patient again."

There are other reasons why students breach recommendations regarding confidentiality. One example is the recommendation of making anonymous case presentations when discussing patients with physicians other than those responsible for the case, which often does not sit well with those physicians. One student said that "If you present to someone that is not the person's consultant (attending) then you don't identify that patient. So I didn't even bother writing a patient's name. I went to the consultant [without the patient's name] and he thought I was a bloody idiot." As a result, the reality is that students mirror everybody else in health care settings who still use people's names to identify who they are talking about. "But no doctor is going to say go and clerk patient 1274" (laughter from participants).

Theme 4: Confidentiality—"The Number One Issue"

One quote from a student highlights what confidentiality means to students: "The doctor who tells you to go (and clerk) . . ., so you write down "Mr B," then you go clerk him and later . . . present him. So, there is half an hour . . . where you've got this guy's life in your pocket." That phrase captures Schon's "reflection in action"²⁹ as the student grasps the importance of the information he holds.

Breaches or Potential Breaches of Confidentiality Encountered by Students. Students do report multiple occasions when they perceive that confidentiality has been broken by themselves or by other students and professionals. Commonly observed breaches were not related to electronic records but rather to paper records in hospital or office settings.

Direct Observation of Students

Students in observed practice appeared to follow professional and institutional guidelines. One informant had, however, found discarded ward charts in the faculty library but justified this by saying that "It's just us medical students who (will) see the notes" even though the library is open to members of the general public.

Discussion

This study offers an insight into how medical students develop their actual practice of dealing with confidentiality and reveals potentially important gaps in

the practice of confidentiality. Students exhibit behaviors with respect to confidentiality ranging from close adherence to professional and institutional guidelines to ignorance or blatant disregard of those guidelines. We believe our results are accurate, as our recruitment and data collection techniques captured a range of attitudes and experiences, which we validated and triangulated across the individual student interview, focus groups, and direct observation.

Nonetheless, our findings have limitations. First, we have focused on just one medical school. While it is possible that students behave differently at other schools, the literature on undergraduate and postgraduate education suggests that our students' behaviors are not unique.^{6,19} Second, use of a medical student investigator for data gathering has potential limitations. The student may share the same unrecognised biases as the students interviewed in the study. However, situating the researcher-student in the context of observing students handling sensitive information provides us with an ethnographic viewpoint,²⁶ which has particular merits in that students probably don't alter their behavior when a peer is present to the extent that they might do so if they were being observed or interviewed by a faculty investigator.

Third, there may have been an element of selection bias, despite the design of our sampling frame. We cannot be sure that students who knew they had violated confidentiality did not avoid participation. However, the fact that we captured unprofessional attitudes suggests we have minimized this potential source of bias.

Finally, we did not capture directly any obvious breaches such as inappropriately discarded charts, but this is unsurprising since these are relatively rare events,¹⁹ and students will probably have been more aware of their behavior during the study. Students may also act in a more responsible manner when they are on campus than when they are in other settings. A longer study would be needed to detect such rare events.

Conclusions

Medical students have differing knowledge, attitudes, and behaviors toward patient confidentiality. While the medical school aims to provide guidance about appropriate maintenance of confidentiality, some students feel this is unclear and at times conflicts with what they observe in clinical practice.

While many students practiced in a professional manner, several reported markedly suboptimal performance in themselves or others. These behaviors appear to be driven by students' own professionalism and behavior learned from senior colleagues. While new technologies pose some particular threats to confidentiality, paper records seem just as vulnerable.

The implications of our findings for medical education and future research may include assuring that

clinical teachers are familiar with the students' prior classroom learning and expectations of licensing bodies. We may need to provide timely reminders to staff and students in clinical settings; emphasising the strong influence of role modelling on professionalization; including ongoing discussions of the theory-practice gap. This gap may arise because guidelines and codes of practice are unrealistic and need to be modified for real-life practice, or because role-model faculty are simply out of step with advice or the implications of innovations. We also need to empower students to question unprofessional practice, either directly or indirectly, and support them formally and informally to maintain their own professionalism despite the observed practice of their seniors.

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Corresponding Author: Address correspondence to Dr Jones, University College London, Research Department of Primary Care and Population Health, Medical School, 2nd Floor, Holborn Union Building, Archway Campus, Highgate Hill, London N19 5LW, United Kingdom. +44 (0)20 7288 3474. Fax: +44 (0)20 7281 8004. m.jones@pcps.ucl.ac.uk.

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