Student Shadowing in Hong Kong Public Hospitals: An opportunity for improving patient safety and ethical practices

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Abstract:

Medical shadowing is a critical component of medical education, yet in Hong Kong's (HK) public hospitals, a lack of a standardized shadowing process raises significant ethical, psychological and justice concerns. Patients may unknowingly consent to student involvement, compromising autonomy, privacy, and safety. This essay examines these ethical dilemmas from the perspective of patients and medical students and proposes reforms, including tiered consent models, clearer role differentiation, structured supervision, visible and multilingual disclosures (including digital prompts), and equity safeguards for elderly and non–Cantonese-speaking patients. By prioritizing patient safety and ethical oversight, HK can balance medical education with patient rights, fostering transparency, trust, and excellence in clinical care while setting a global example for over-burdened healthcare systems.

Medical shadowing provides invaluable learning experiences for students [1], yet in HK public hospitals under Hospital Authority (HA), it often occurs without clear patient consent or defined supervisory structures. While ethical concerns regarding patient autonomy and privacy are widely debated, the impacts of shadowing on patient care and safety remain underexplored in existing literature. Patients may mistaken students for licensed practitioners, unknowingly agree to their involvement in sensitive procedures, or withhold critical health information due to discomfort of the number of team members present - all of which can compromise patient safety - a widespread issue globally.[2,3] This essay examines the ethical challenges of medical shadowing in HK through the perspectives of patients and medical students, proposing reforms to minimize risks, improve oversight, and prioritize patient safety without compromising educational value, while also considering psychological stress responses, distributive justice, and feasibility within HA operations.

As the main governing body of the public hospital system, HA facilitates *medical shadowing* (also known as *clinical attachments*) for high school and medical students through flagship programs like *Student Exposure Programme* [4,5] and *Elective Clinical Attachment*, respectively. Typically lasting at least two weeks, these are organized by hospital clusters based on geographic locations.[6] Shadowing is also integrated in the clinical year medical curriculum, allowing students to observe consultations, attend surgeries, and at times, assist in procedures. These experiences provide invaluable exposure to clinical practice, especially for senior medical students. Although documentation is provided for students to sign prior to the shadowing, proper regulations and enforcement mechanisms remain lacking, and variability in disclosure practices can result in inconsistent patient experiences across settings.

Patient perspective:

A pressing ethical and patient safety issue in shadowing is the inadequate disclosure of presence and role of students. Informed consent, a fundamental principle of medical ethics rooted in Kantian ethics, requires patients be aware of who is involved and the scope of involvement in their care. Three key elements of valid consent include sufficient disclosure of information, patient capacity and competency, and voluntariness for such decision making.[7] While this definition generally extends to medical students given their presence and involvement [8], informed consent is often inconsistent and presumed in HK hospitals.[9] Some teaching hospitals display signage indicating student presence with an opt-out consent process for patients to refuse student observation, yet such disclosures are not standardized across hospitals or uniformly accessible to all patient groups. Consequently, patients may unknowingly consent to the presence of students during intimate or sensitive medical consultations, such as pelvic exams or preoperative consultations, and unawareness of student presence, such as student observation in surgeries, further erodes trust in HA's system, risking legal action if later uncovered by patients.

Psychologically, unanticipated observers can elevate stress via social evaluative threat and loss of perceived control, particularly in gynecological, urological or LGBTQIA+ encounters where stigma may be heightened.[10] Such stress mechanisms help explain why patients in sensitive consultations may downplay abnormal bleeding, infection, or menstrual irregularities [11], or avoid disclosing sexual history or urinary symptoms that are clinically essential, thereby affecting safety through incomplete histories, deferred examinations and delayed diagnoses. Studies suggest that most patients favor mandatory prior consent for every consultation [12], yet students equally feel dilemmas on disclosure, having received little guidance beforehand. It is therefore essential that principles of duty and universal law are

reflected in documentation, ensuring that patients receive clear information about student involvement and necessitates being treated as ends in themselves.[13]

Despite disclosure concerns, many patients passively accept student observation, perceiving that it enhances medical attention by turning their consultation into teaching demonstrations. This belief is deeply intertwined with the power dynamics of an overburdened healthcare system, where long wait times and quick turnovers between consultations render consent trivial.[14] The perceived obligation to comply, nevertheless, obscures patients' true preferences and behavior, clearly exemplified in gynecological and urological exams [15,16], and during encounters including members of the LGBTQIA+ community, who face additional stigmatisation from society.[10] In this context, justice considerations become salient: non-Cantonese-speaking patients, elderly patients with sensory or cognitive limitations, and low-literacy or low-income patients who rely on public hospitals may not perceive posted notices, may struggle with rapid verbal explanations, or may be less able to assert preferences without fear of affecting their care. Without equity safeguards, an opt-out process risks being consent in name but not in practice for those who most need support.

Student perspective:

Beyond consent issues, inadequate role clarity and supervision for medical students directly impact patient safety. In busy hospital settings [12], patients may struggle to differentiate between students and clinicians, particularly when both groups wear similar uniforms. This ambiguity creates confusion and leads to patients mistakenly attributing trust and authority to students as they would to clinicians, potentially compromising patient-doctor relationship and informed decision-making. Although medical shadowing is primarily observational in HK, students are sometimes invited to perform basic tasks or access sensitive patient data, further

blurring observation and participation. While such involvement undoubtedly enhances student learning, it raises ethical concerns, particularly around violations of patient privacy and insufficient consent procedures. From a deontological perspective, truthfulness is a fundamental duty, and misleading patients, even unintentionally, about a student's level of expertise treats them as mere means rather than ends in themselves.

Furthermore, unclear role expectations place undue stress on students, who may feel pressured to act in a particular manner or, on occasions, perform tasks beyond their competence, leading to moral distress. Over time, repeated exposure to ethically uncomfortable situations can erode students' professional integrity and confidence. Students, as developing professionals, benefit immensely from mentorship and emotional support to navigate complex ethical situations. While fostering a supportive learning environment ensures students shift from passive observers to ethically engaged learners, protecting students early on in their career becomes a responsibility of both hospitals and academic institutions to enable students' to evolve into skilled practitioners possessing moral accountability for patient dignity and safety.

Proposed Solutions:

HK medical schools' recognize this challenge patients face and gradually imposed institutional policies to mitigate disparities in student roles. To clarify and formally recognize medical students' involvement in clinical procedures, a "clinical assistant intern" title is designated for year five medical students and above (out of a six-year program).[17] This title enables students to assist doctors when appropriate and fosters a clearer understanding of their responsibilities.

However, merely assigning a title does not fully resolve the issue without consistent disclosure and explicit boundaries around scope. HK could strengthen its consent process by modelling other healthcare systems, like New Zealand's tiered consent model [18], which allows patients to choose the level of student involvement they are comfortable with, whether minimal observation, active student participation under supervision, or decline student involvement.

Since shadowing in HK is primarily observational, sustaining an opt-out informed consent model ensures feasibility and lack of operational disruption, provided that a team member explicitly notifies patients' before student involvement - as this practice is not always reliably followed presently. If students' receives permission from clinicians to conduct examinations or invasive procedures, written consent should also be provided for medical students, referencing a recent mandate from US Department of Health and Human Services, as a legal guardrail to protect patients, clinicians and institutions.[19] Additionally, adding a clause in preoperative consent forms could inform patients about potential student observers in the operating theatre, with a clear option to decline without prejudice, further protecting from hospital liability, while avoiding patient complaints about unawareness, safety risk or lack of consent. By incorporating integrated care communication amongst healthcare professionals and a more thorough consent process, patients can make better-informed care decisions with reduced safety concerns.

From an infrastructure perspective, HA can introduce more prominent signage across all clinics to inform patients about medical students' roles and explore implementing digital systems in HA GO (mobile app) that could notify patients about student involvement upon check-in.[20] These disclosures should also be multilingual and elderly-friendly, with large-font

and plain-language versions, and mirrored at registration counters or kiosks to avoid disadvantaging patients who do not use smartphones. Additionally, a formalised enforcement of wearing badges visibly delineates students' identities and enables patients to make informed decisions about their involvement. Short, scripted introductions such as “I am a medical student observing today; please let us know if you prefer otherwise”- could also be standardized to reduce variability and preserve clinic flow, while brief documentation prompts in the electronic record for sensitive examinations can anchor accountability. While these changes entail financial costs in the short-run, it can be treated as a mere routine systems enhancement to improve service delivery, with patient safety as a guiding principle.[21]

HA should also enhance professionalism training for students and clinicians. Currently, students complete limited training under HA protocols prior to the shadowing.[4] More comprehensive training can ensure students fully understand their roles, responsibilities, and boundaries before starting the shadowing. Simulation-based practice for consent conversations and escalation when patients decline would help students manage anxiety and reduce moral distress. This training, along with a standardized protocol for medical shadowing and clear assignment of a supervising clinician for each session, could be part of a broader effort to nurture a culture of transparency and respect for patient rights within HK’s healthcare system.

Finally, a significant gap remains in research literature on medical shadowing and its ethical implications in HK, particularly regarding medical errors, patient discomfort and role ambiguity. To develop specific evidence-based guidelines, there is an evident need for interdisciplinary empirical research and ethical analysis amongst academic institutions, healthcare policymakers, and bioethicists to explore the magnitude of shadowing on patient

safety, informed consent, and student preparedness. Studies examining psychological stress and disclosure quality with and without student observers, stratified by age, language and gender, would deepen understanding of patient harms, while implementation research on tiered consent, signage, and digital prompts, amongst other proposals, across clusters could quantify cost-benefit and health outcomes for HA.

Conclusion:

Medical shadowing is undoubtedly an invaluable learning experience for medical students, but it must be balanced with ethical responsibilities owed to patients. The current lack of standardized shadowing guidelines in HK's public hospitals creates ethical dilemmas that risk undermining patient autonomy, privacy, and, ultimately, patient safety. By implementing clearer policies on informed consent, enhanced training, and patient-centered consent models, and by explicitly addressing psychological stressors and justice concerns for elderly and non–Cantonese-speaking patients, HK's healthcare system can sustain medical shadowing with robust, reliable and replicable processes. Further research should assess the impact of tiered consent models, with comparative studies to guide best practices for student consent in clinical care, while routine audits and feedback loops can ensure equitable implementation across clusters. Ultimately, a more transparent, streamlined and ethical approach to medical shadowing will benefit not only students and patients but also the HA system, representing a good example to be adopted by other jurisdictions facing similar challenges.

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