Title: Learning of Intimate Area Examination Amongst Pakistani Medical Students: Knowledge, Attitudes, and Practices Study

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Discussion Points: Intimate Area Examination (IAE) skills of Pakistani medical undergraduates.

1. Challenges faced by medical students in learning IAE skills.
2. Difference between learning methods of IAE skills at public and private medical colleges.

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ABSTRACT.

Background: Intimate area examination (IAE) is an integral part of clinical examination skills and must be mastered by medical students before they start their careers. This study explores the experiences of Pakistani medical students regarding learning of IAE, the associated barriers and their impacts on students' learning.

Methods: This cross-sectional study, based on a self-designed questionnaire, was conducted at two Pakistani medical colleges, which included final year students and postgraduate trainees.

Results: During their undergraduate training, 74.9% of the respondents had not conducted a female pelvic examination, 51.9% had not examined a female groin, 79.7% had not examined a female rectum, and 72.7% had not examined a male rectum. From the 65 postgraduate doctors, 48.4% reported that they were not prepared to perform an IAE at the start of their clinical career. Regarding barriers to IAE learning, more than half of the respondents felt that the opposite gender of the patient (64.7%) and patient's refusal (63.1%) had a strong negative impact on IAE learning. A high percentage of respondents reports that they were not taught IAE during their undergraduate years. Among the currently used pedagogical techniques, 71.1% of the respondents opted for real patient-based learning, followed by clinical simulations (21.9%), and videos (7.0%). No one thought examination should be taught theoretically. A significant difference between male and female experience in IAE learning was also observed.

Conclusion: Learning of IAE remains unsatisfactory and poses a major challenge for the Pakistani Medical Students in the institutes included in this study.

Key Words: clinical skills, physical examination, medical students, teaching methods

INTRODUCTION.

Intimate area examination (IAE) refers to a physical examination of male and female genitalia, female breasts, and the rectum.[1] In Pakistan, the medical education system typically lasts for five years and encompasses compulsory subjects such as gynecology, surgery, pediatrics, and other related fields. Each academic year culminates in a rigorous annual examination that combines written assessments and Objective Structured Clinical Examinations (OSCEs). It is worth noting that these subjects often entail practical training that involves exposure to intimate areas to ensure comprehensive development of clinical skills. Clinical examination is integrated into the undergraduate MBBS and BDS curriculum as part of the syllabus, which includes clinical demonstrations, individual practice on inanimate simulators (mannequins), practice with simulated patients/trainers, or individual practice on patients in a clinical setting under supervision. This approach enables students to become familiar with clinical skills at an early stage in their academic journey. By the time they reach their final year, they are not only taught how to conduct examinations but are also required to practice procedures on real patients and formulate a plausible differential diagnosis regarding the patient's condition. Mastering the skills of IAE is essential for a medical graduate to be able to practice safe medicine. Unfortunately, this skill is found deficient in most graduates.[2] A curriculum centered on an overwhelming plethora of facts and figures without significant emphasis on clinical skills, fails to serve the community well.[3]

Previous studies addressing the issue of learning IAE suggested that not only have students failed to thoroughly conduct an IAE at an undergraduate level,[4] but as a consequence of the awkward and obviously discommoding nature of these examinations, opportunities to procure expertise in this specific area are also not adequately available in undergraduate medical programs.[5]

IAE, just like any other human interaction, is subject to a lot of complexity due to the two individuals behaving in accordance with their own set of beliefs, knowledge, sex, religion, ethical values, experiences and cultural context. All this significantly impacts the acquisition of skills involved in IAE. Moreover, the patient as well as the examining student / doctor might have concerns and apprehensions. Failure to address these puts both of them at considerable risk.[1]

According to a number of studies, general practitioners deficient in IAE skill set avoided taking sexual histories and IAE examination in clinical settings.[6] The unfortunate exiguity of clinical experience in this area is not only detrimental to the student's professional career, since we are talking about the under-development of a certain skill set, which is often not subjected to amelioration later on, but it also puts the life of the patient in considerable danger due to the negligence that is most definitely concomitant. A thorough IAE is a prerequisite for accurately detecting many medical disorders like sexually transmitted infections,[7] testicular cancers,[8] hernias,[9] varicocele,[9] hydrocele,[9] carcinomas and cervical neoplasia[10] screening via pap smears and other gynecological and obstetric ailments.[11]

Female breast examination helps the examiner to distinguish between benign and malignant lesions of breast tissue. Research literature suggests that 1 out of every 9 Pakistani women have, during some stage of their life, been diagnosed with breast cancer.[12] Hence, it is critical for the medical doctor to be well-equipped with the

essentials of examining such areas because a single timely diagnosis could decide between life and certain death. In a developing country like Pakistan, there are other numerable cultural and religious elements which contribute towards barriers to adequate learning of IAE.

We conducted this study to analyze the ability and experience of Pakistani medical students when it came to IAE and also to detect factors which the students felt as hurdles in their IAE learning experience. Furthermore, this study sought to shed some light on teaching methodologies that are used to teach Pakistani medical students about IAE and to what extent do they succeed in their purpose. To the best of our knowledge, literature on this issue is scarce. It can, therefore, help educational institutions develop effective policies and courses that not only improve the clinical skills of aspiring doctors but also enhance our current pedagogy.

MATERIALS AND METHODS.

A quantitative observational cross-sectional study was conducted simultaneously at Combined Military Hospital Lahore Medical College & Institute of Dentistry (CMH LMC &IOD) and King Edward Medical University (KEMU), Lahore, Pakistan. CMH LMC & IOD is a private sector institute whereas KEMU is a public sector university. The study was conducted over a period of 8 months.

The eligibility criteria included male and female final year MBBS students and postgraduate trainees within 2 years of their graduation. Two hundred and ten participants were selected using non-probability convenient sampling (105 from each medical college) over a period of 6 months. Students who did not consent to be included in the study and whose questionnaires were incomplete were excluded from the study. The response rate was 89%. The research investigates the interplay among public versus private university settings, gender differences (boys versus girls), and academic levels (undergraduate versus postgraduate) to examine their individual influence on their experience of having performed IAE.

Data from the subjects was obtained through a self-designed questionnaire after informed consent. Participants were provided with a written explanation of the survey, ensuring transparency, and a guarantee of confidentiality, securing their informed consent before engaging in the research. The questionnaire was developed based on a scientific literature review [4, 13, 14], and developed using the general principles of good survey design[15] Initially, it was pilot tested on 12 students and changes in the response format were done according to the feedback of the pilot sample (such as a separate section for postgraduate students to avoid confusion). The questionnaire was further reviewed, and the quality of the included questions was verified. Cronbach's alpha test was applied to check the validity and reliability of the questionnaire before being used for data collection, and it gave a value of 0.80 hence deeming it reliable.

With a confidence level of 95% on a population size of 300 and 5% margin of error, the sample size was calculated using the following formula (based on central limit theorem) $n = Z^2 1 - \alpha/2\ p(1-p) / d^2$ to be 187.

All information collected was entered and analyzed through of IBM SPSS 23. Descriptive statistics was employed to measure the frequencies and Pearson Chi-squared test was used to evaluate the association between different variables. During the analysis, the statistical significance level was considered as $P<0.05$.

The study was approved by the Ethical Review Committee of CMH LMC & IOD and the approval code was 228/ERC/CMHLMC. Given population was approached by the researchers and were informed about the research details. Essential guidelines were provided. Informed consent was taken from the participants and were told that their confidentiality will be ensured and the data will be used for research purpose only. All reasonable steps were taken to ensure that any potential risks to the participants were mitigated as much as possible, such as assigning a sequential code to every participant during data entry to ensure confidentiality was maintained during the data analysis process

RESULTS.

Out of two hundred and ten 187 questionnaires were properly filled, 83 were filled by KEMU (44%), and 104 were filled by CMH LMC & IOD (55.6%). 98 of the questionnaires were filled by males (52.4%) and 89 were filled by females (47.6%). 122 of the respondents were undergraduate, whilst 65 had graduated less than 2 years ago.

The results comparing the percentage of male vs female students, and of private vs government students who had performed intimate area examination during their undergraduate clinical training are shown in Table 1.1 & 1.2.

The details of most common barriers that affect the performance of intimate area examination have been given in Table 2.1 & 2.2.

According to our results, a high percentage of respondents reports that they were never even taught IAE during their undergraduate years. For example, 106 (56.7%) of respondents were never taught examination of female pelvis, 114 (61%) were never taught examination of female rectum, 67 (35.8%) were never taught examination of female groin and 92 (49.2%) were never taught examination of male rectum. Majority of them were taught examination of the female breast (167 (89.3%)) and the male groin (159(85%)).

Various methods of teaching were reported by the students, i.e. real patients, clinical simulations, videos, theoretical or a mixture of these. The results are shown in Table 3. When asked which method they think is best, 133 (71.1%) of the respondents said real patients, followed by clinical simulations with 41 respondents (21.9%), and videos with only 13 (7.0%). None of them thought examination should be taught theoretically.

From the 65 postgraduate doctors who filled out the questionnaire, 31(48.4%) reported that they were not prepared to perform an IAE at the start of their clinical career. Only half of the males (12 (54.5)) and females (21 (50.0%)) respondents felt prepared. From KEMU, 19 (57.6%) of the respondents felt prepared, whereas from CMH LMC & IOD only 14 (45.2%) of the respondents felt prepared. There was no statistical difference between the responses of males and females who felt prepared, as well as between the responses from CMH LMC & IOD and KEMU.

DISCUSSION.

According to the results of our research, the majority of the students had never been taught how to perform IAE during their undergraduate years. As a result, the greater chunk graduated with a serious dearth of clinical experience when it comes to IAE. As mentioned before, this may prove to be a setback as far as their diagnostic skills as a clinician are concerned. Our results reveal significant differences between the experience of male and female students. Although the percentage of the males and the females who had examined male genitalia was about the same, the percentage of females who had examined female intimate areas was far greater than their male counterparts. This could be due to a female patient's preference of a female doctor, as a recent research conducted in Pakistan indicates that 95% of the female respondents preferred a female gynecologist as opposed to a male.[16] Another study conducted amongst women during their prenatal visits revealed that female patients tend to be more content with the emotional sensibility and responsiveness expressed by female obstetricians as opposed to male obstetricians.[17] However, as far as males are concerned, previous literature reveals that a male patient's satisfaction is not related to the gender of the physician. [18]Therefore, it is safe to hypothesize that female patients might experience discomfort during intimate examinations by male doctors, particularly medical students. Patients may perceive the presence of a student as unnecessary compared to a consultant, thereby contributing to the male students' lack of experience. On the other hand, male patients are less likely to be influenced by the gender of the physician treating them regarding IAE. As a result, IAE of a female patient is more likely to be done by a female, whereas most of the times, such a discrepancy would not occur where IAE of a male patient is concerned.

There was no statistically significant difference between the experience of students from CMH LMC & IOD vs the students of KEMU, except for the examination of the female groin and the female rectum. Despite the larger patient load of KEMU and its affiliated hospital (Mayo Hospital Lahore), the fact that there was not much difference between the experience of students reveal that this deficiency of clinical experience has less to do with the lack of opportunity, and more to do with other factors which shall be discussed below.

The most important barriers for IAE were the opposite gender of the patient and refusal of the patient. Previous relevant medical literature suggests that a number of factors can influence whether or not the patient consents to an IAE, one of which is the gender of the doctor.[19] This is further backed by an Australian study carried to identify the barriers that existed in the procedures of Sexual History Taking (SHT) and Intimate Area Examination (IAE). The research pointed at factors such as patient embarrassment, fear of invasion of privacy and the disparity of gender between the patient and the doctor.[6] For male students, the most important factor was the opposite gender of the patient. In a deeply conservative country such as Pakistan, religious and cultural values are deeply rooted in Islamic principles, emphasizing modesty and maintaining appropriate interactions between opposite genders to uphold moral standards. The adherence to these principles is often seen as a way to uphold religious morality and societal cohesion, contributing to the conservative norms regarding interactions between men and women. Unfortunately, this specific stigma meanders its way into medical practices owing substantially to the fact that many patients are strictly against seclusion/physical contact with the doctor of the opposite gender.[18] For females, the lack of supervision was also an important factor. This could be due to the fact that female healthcare workers are far more likely to face sexual harassment at the hands of

a patient [21,22] than a male worker, and hence they feel more comfortable treating a male patient in the presence of a chaperone or a colleague instead of treating him in seclusion. To resolve these issues, gender-sensitive training methods, such as role-playing and case discussions, should be employed to foster a more inclusive and culturally competent healthcare environment, promoting better patient-doctor communication.

When comparing CMH LMC & IOD with KEMU, the results indicate that the opposite gender of the patient and the sociocultural issues were more of a problem for KEMU than for CMH LMC & IOD. This could be owing to the fact that KEMU is located in a socially conservative area, where cultural norms and religious values often shape perceptions and expectations around gender interactions. Furthermore, KEMU attracts patients from all socioeconomic backgrounds since it's a government hospital. In contrast, CMH LMC & IOD is not only situated at the heart of an affluent residential area – it is also private, hence catering disproportionately more to the wealthier strata of society which, being more affluent, might be more accustomed to diverse healthcare interactions and possibly more liberal attitudes toward gender dynamics.

When it comes to teaching the clinical methods of IAE, it is evident that this area is in dire need of amelioration, as a large percentage of students were never even taught IAE. Male students suffered more from this than females, as not only were a lesser percentage of male students taught examination on a female patient, but there is a striking disparity in the methods used to teach each gender as well. For example, the percentage of male students who were taught IAE on actual patients is considerably less than females, and instead they were taught using videos, clinical simulations or worse yet, just theoretically. This is not only detrimental to the honing of their skills as future physicians, but it may also be counter conducive to their assessment of female patients in the future.[23] For example, a research conducted in Pakistan in 1999 revealed that around 340 million new cases pertaining to STIs that are either curable and/or preventable limited to Gonorrhea, Chlamydia, Syphilis and Trichomoniasis were uncovered.[24] Keeping in mind the fact that these STIs are treatable if diagnosed early on, it is absolutely crucial that the medical practitioner has well-honed skills in the field of IAE.[7]

There were also appreciable differences between the methods used in CMH LMC & IOD vs KEMU. In KEMU, more students had performed IAE on actual patients as compared to CMH LMC & IOD, with less reliance on other methods, such as videos or clinical simulations. There is also no evidence of the students from KEMU having used more than one method to learn IAE. One reason behind this could be that KEMU, being a government institute, receives far less funding, as a result of which methods such as videos or simulations are not provided. However, KEMU also has a much greater patient load, hence a greater availability of patients could contribute to the lack of reliance on other methods.

When asked about the best teaching method for IAE, majority of the students opted for real patients, as it has been cemented that exposure to patients help students develop better clinical skills.[25,26] However, in conservative societies like Pakistan, training for IAE necessitates culturally sensitive approaches, such as enhanced simulation techniques involving advanced mannequins mimicking realistic scenarios or mixed reality training, which integrates virtual and real-world elements, providing a controlled environment for practical training. Clinical simulations were the next most popular choice. According to previous research surveys, students find that the use of clinical simulations help the student prepare for real life patients[27], as it gives them

the margin of making mistakes without fear of hurting the patient.[28] This provides them with much-needed psychological cushioning and allows them to practice their skills without fearing failure and/or embarrassment. Furthermore, it is less anxiety-inducing for the students to practice using simulators as compared to practicing on a real life patient.[29] Unsurprisingly, nobody thought that it was a good idea to limit the teaching of clinical skills to a strictly theoretic domain. As recent research shows, students find it extremely hard to translate their vast theoretical knowledge into practice, once they enter professional clinical settings.[30]

The fact that only half of the postgraduate trainees we surveyed felt they were ready to perform an IAE at the start of their clinical years profoundly attests to this fact. It goes without saying that this deafening hesitation is proof of their questionable clinical training in this field. This means that almost half of the doctors that have recently graduated have never performed a breast, groin or rectal exam on either gender, rendering them incapable of performing procedures that are expected from them during their House job (internship) such as urinary catheterization, per rectal examination and proctoscopy etc. This will not only put them under immense psychological pressure when the duty calls them to task, they will also be more liable to making mistakes. This will have a two-fold effect on these budding physicians: not only will their confidence be badly shaken when they will find themselves unable to perform basic clinical examinations, but they might even end up hurting or harming the patient owing to their crude and/or underdeveloped examination skills.

Limitations:

The study has several limitations, which should be addressed in future researches on this topic. This study uses a convenient sampling approach, which may introduce selection bias and restrict the findings' generalizability. Using a more rigorous and representative sampling method, such as stratified random sampling, would enhance the study's validity. Additionally, the study is based on self-reported data, which is susceptible to social desirability bias. Participants may give answers that they believe are socially acceptable rather than their true experiences. Incorporating objective measures or observations alongside self-reports could mitigate this bias, such as implementing OSCE stations that specifically evaluate students' performance in IAE, providing a standardized and structured assessment tool with direct observation by examiners. Furthermore, the study focuses on medical students from two specific Pakistani medical colleges, limiting the generalizability of its findings to a broader population. Including a more diverse range of institutions and students would increase the study's external validity.

CONCLUSION:

This study and medical literature show that intimate area examination (IAE) remains a neglected area of undergraduate studies. Given its current state, IAE demands attention and improvement. Cultural biases must be addressed, and teachers themselves must take the initiative to ensure that students learn these vital examinations in real life.

Measures to improve the current system could include: supervision at all times by a senior physician to alleviate any anxiety the student may feel, emphasis on an integrated system of learning (like combining clinical simulations with in real life examination) to ensure the student gets enough practice before attempting an

examination on a real patient, and counseling sessions of patients to address the socioeconomic barriers and how to overcome them.

For future research in the field of Intimate Area Examination (IAE), it is imperative to explore the significant influence of cultural and religious factors on the learning process. Conducting studies that compare the experiences of medical students hailing from diverse cultural and religious backgrounds can provide invaluable insights. These studies should delve into how cultural beliefs, practices, and religious doctrines impact the acquisition of IAE skills. Understanding these influences can help educators tailor their teaching methods to be more inclusive and effective for a wider range of learners.

CONFLICT OF INTERESTS:

None to declare

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Summary

Title: Learning of intimate area examination amongst Pakistani medical students: KAP study

Main Problem to Solve:

Intimate Area Examination (IAE) skills remain inadequately taught during medical education. Students face challenges in learning how to perform thorough check-ups in sensitive areas of the body. Cultural biases, gender dynamics, and insufficient teaching contribute to this problem.

Aim of the Study:

Our research aimed to explore how Pakistani medical students learn IAE. We focused on the challenges they encounter and compared learning methods between public and private medical colleges. Ultimately, we sought to enhance IAE training for future healthcare professionals.

Methodology:

We conducted a cross-sectional study at two Lahore-based institutions: Combined Military Hospital Lahore Medical College & Institute of Dentistry (CMH LMC & IOD) and King Edward Medical University (KEMU). Participants included final-year MBBS students and postgraduate trainees. We used a self-designed questionnaire to collect data, considering factors like university type, gender, and academic level.

Results:

Our study surveyed 187 participants from both public and private institutions. Among them, 83 were from KEMU (public), and 104 were from CMH LMC & IOD (private). Male participants constituted 52.4%, while females made up 47.6%. Here are the key findings:

1. **Teaching Gaps:**
    - Most respondents (56.7% to 61%) reported never being taught IAE during their undergraduate years.
    - Specific areas lacking instruction included examination of the female pelvis (56.7%), female rectum (61%), female groin (35.8%), and male rectum (49.2%).
2. **Preferred Learning Methods:**
    - Real patients were considered the best teaching method (71.1%).
    - Clinical simulations (21.9%) and videos (7.0%) were also used.
    - None of the respondents believed that IAE should be taught theoretically.
3. **Postgraduate Preparedness:**
    - Among the 65 postgraduate doctors who filled out the questionnaire, 48.4% reported not feeling prepared to perform IAE at the start of their clinical careers.
    - Gender and institutional differences did not significantly impact preparedness levels.
4. **Overall Inadequacy:**
    - IAE learning remains insufficient in both public and private institutes.
    - The study highlights the urgent need for improvement.

Conclusion:

In conclusion, our research sheds light on the neglected area of IAE in undergraduate medical education. To address this issue, we propose the following measures:

1. **Supervision:**
    - Continuous supervision by senior physicians can alleviate student anxiety during IAE practice.
    - Senior guidance ensures that students gain confidence and competence.
2. **Integrated Learning:**
    - Combining clinical simulations with real-life examination provides a comprehensive learning experience.
    - Students should have ample practice before attempting IAE on actual patients.
3. **Patient Counseling:**
    - Address socioeconomic barriers and patient concerns.
    - Educate patients about the importance of IAE and their role in the learning process.
4. **Future Research:**
    - Explore cultural and religious influences on IAE learning.
    - Compare experiences of medical students from diverse backgrounds.
    - Tailor teaching methods to be more inclusive and effective.

By implementing these recommendations, we can bridge the gap in IAE education and better prepare future healthcare professionals.

FIGURES AND TABLES.

Table 1.1 & 1.2. Percent of the students who performed intimate-area examinations during the clinical training by the medical colleges and by sex (n=187)

Table 1.1

Clinical Exam	Participant Reply	Public N=83, N (%)	Private N=104, N (%)	p
Female Breast	Yes	66(79.5)	79(76.0)	0.563
	No	17(20.5)	17(24.0)	
Female pelvis	Yes	22(26.5)	25(24.0)	0.699
	No	61(73.5)	79(76.0)	
Female groin	Yes	30(36.1)	60(57.7)	0.003
	No	53(63.9)	44(42.3)	
Female rectum	Yes	11(13.3)	27(26.0)	0.032
	No	72(86.7)	77(74.0)	
Male groin	Yes	63(75.9)	85(81.7)	0.330
	No	20(24.1)	19(18.3)	
Male Rectum	Yes	25(30.1)	24(23.1)	0.268
	No	58(69.9)	78(75.0)	

Table 1.2

Clinical Exam	Participant Reply	Male N=,98 N (%)	Female N=,89 N (%)	p
Female breast	Yes	63(64.3)	82(92.1)	<0.001
	No	35(35.7)	7(7.9)	
Female pelvis	Yes	10(10.2)	37(41.6)	<0.001
	No	88(89.8)	52(58.4)	
Female groin	Yes	37(37.8)	53(59.6)	0.003
	No	61(62.2)	36(40.4)	
Female rectum	Yes	13(13.3)	25(28.1)	0.012
	No	85(86.7)	64(71.9)	
Male groin	Yes	83(84.7)	65(73.0)	0.05
	No	15(15.3)	24(27.0)	
Male Rectum	Yes	33(33.7)	16(18.0)	0.051
	No	64(65.3)	72(80.9)	

Public= King Edward Medical University

Private= CMH LMC & IOD

Table 2.1 & 2.2 Medical student ratings of the impact of different barriers to learning of skills for intimate area examination (n=187)

Table 2.1

Barrier	Sex	No impact, n (%)	Little impact, n (%)	Strong Impact, n (%)	P
Patient's refusal	Male	5(5.1)	42(42.9)	51(52.0)	0.001
	Female	6(6.7)	16(18.0)	67(75.3)	
Patient's opposite gender	Male	4(4.1)	23(23.5)	71(72.4)	0.063
	Female	7(7.9)	32(36.0)	50(56.2)	
Lack of student motivation	Male	20(20.4)	45(45.9)	33(33.7)	0.003
	Female	6(6.7)	34(38.2)	49(55.1)	
Lack of supervision	Male	11(11.2)	46(46.9)	41(41.8)	0.001
	Female	6(6.7)	22(24.7)	61(68.5)	
Lack of favorable environment	Male	17(17.3)	45(45.9)	36(36.7)	0.020
	Female	6(6.7)	35(39.3)	48(53.9)	
Sociocultural issues	Male	10(10.2)	35(35.7)	53(54.1)	0.391
	Female	6(6.8)	26(29.5)	56(63.6)	

Table 2.2

Barrier	University	No impact, n (%)	Little impact n (%)	Strong Impact, n (%)	p
Patient's refusal	Public	2(2.4)	25(30.1)	56(67.5)	0.170
	Private	9(8.7)	33(31.7)	62(59.6)	
Patient's opposite gender	Public	4(4.8)	17(20.5)	62(74.7)	0.036
	Private	7(6.7)	38(36.5)	59(56.7)	
Lack of student motivation	Public	16(19.3)	34(41.0)	33(39.8)	0.155
	Private	10(9.6)	45(43.3)	49(47.1)	
Lack of supervision	Public	7(8.4)	36(43.4)	40(48.2)	0.203
	Private	10(9.6)	32(30.8)	62(59.6)	
Lack of favorable environment	Public	5(6.0)	39(47.0)	39(47.0)	0.063
	Private	18(17.3)	41(39.4)	45(43.3)	
Sociocultural issues	Public	2(2.4)	19(22.9)	62(74.7)	<0.001
	Private	14(13.6)	42(40.8)	47(45.6)	

Private= CMH LMC & IOD

Public= King Edward Medical University

Table 3.1 & 3.2

Medical student ratings of the impact of the current teaching methods on students' intimate-area examination skills (n=187)

Table 3.1

Clinical Exam	Method	Male n (%)	Female n (%)	p
Female breast	Real patients	62(63.3%)	74(83.1%)	0.009
	Clinical Simulations	0%	0%	
	Videos	3(3.1%)	2(2.1%)	
	Theoretical	21(21.4%)	1(1.1%)	
	Two or more	13(12.1%)	12(13.4%)	
Female pelvis	Real patients	12(12.2%)	40(44.9%)	0.000
	Clinical Simulations	5(5.1%)	3(3.4%)	
	Videos	8(8.2%)	3(3.4%)	
	Theoretical	65(66.3%)	37(41.6%)	
	Two or more	8(8.1%)	6(6.7%)	
Female groin	Real patients	33(33.7%)	55(61.8%)	0.001
	Clinical Simulations	2(2.0%)	5(5.6%)	
	Videos	7(7.1%)	5(5.6%)	
	Theoretical	46(46.9%)	14(15.7%)	
	Two or more	10(10.1%)	10(11.2%)	
Female rectum	Real patients	15(15.3%)	28(31.5%)	0.160
	Clinical Simulations	4(4.1%)	1(1.1%)	
	Videos	9(9.2%)	3(3.4%)	
	Theoretical	62(63.3%)	50(56.2%)	
	Two or more	8(8.1%)	7(7.7%)	
Male groin/scrotum	Real patients	69(70.4%)	57(64.0%)	0.804
	Clinical Simulations	1(1.0%)	2(2.2%)	
	Videos	1(1.0%)	1(1.1%)	
	Theoretical	15(15.3%)	19(21.3%)	
	Two or more	10(12.2%)	10(11.2%)	
Male rectum	Real patients	41(41.8%)	24(27.0%)	0.069
	Clinical Simulations	2(2.0%)	5(5.6%)	
	Videos	5(5.1%)	2(2.2%)	
	Theoretical	41(41.8%)	52(58.4%)	
	Two or more	9(9.2%)	6(6.7%)	

Table 3.2

Clinical Exam	Method	Public n (%)	Private n (%)	p
Female breast	Real patients	71(85.5%)	65(62.5%)	0.017
	Clinical Simulations	0(0.0%)	0(0.0%)	
	Videos	3(3.6%)	2(1.9%)	
	Theoretical	9(10.8%)	13(12.5%)	
	Two or more	0(0.0%)	23(23.2%)	
Female pelvis	Real patients	26(31.3%)	26(25.0%)	0.035
	Clinical Simulations	5(6.0%)	3(2.9%)	
	Videos	8(9.6%)	3(2.9%)	
	Theoretical	44(53.0%)	58(55.8%)	
	Two or more	0(0.0%)	13(13.5%)	
Female groin	Real patients	39(47.0%)	49(47.1%)	0.001
	Clinical Simulations	5(6.0%)	2(1.9%)	
	Videos	11(13.3%)	1(1.0%)	
	Theoretical	28(33.7%)	32(30.8%)	
	Two or more	0.0%	20(19.3%)	
Female rectum	Real patients	19(22.9%)	24(23.1%)	0.174
	Clinical Simulations	2(2.4%)	3(2.9%)	
	Videos	7(8.4%)	5(4.8%)	
	Theoretical	55(66.3%)	57(54.8%)	
	Two or more	0.0%	15(14.5%)	
Male groin/scrotum	Real patients	61(73.5%)	65(62.5%)	0.007
	Clinical Simulations	2(2.4%)	1(1.0%)	
	Videos	2(2.4%)	0.0%	
	Theoretical	18(21.7%)	16(15.4%)	
	Two or more	0.0%	22(21.1%)	
Male rectum	Real patients	35(42.2%)	30(28.8%)	0.069
	Clinical Simulations	3(3.6%)	4(3.8%)	
	Videos	1(1.2%)	6(5.8%)	
	Theoretical	44(53.0%)	49(47.1%)	
	Two or more	0.0%	15(14.5%)	

Private= CMH LMC & IOD Public= King Edward University