

Original Article

Deficits in history taking skills among final year medical students in a family medicine course: A study from KSA

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المخلص

أهداف البحث: يُعتبر أخذ التاريخ المرضي أداة تشخيصية مهمة في الطب. حيث يجب أن يكون طلاب الطب مؤهلين في مهارات أخذ التاريخ المرضي المركز للوصول إلى التشخيص المبني. تهدف الدراسة إلى تحديد أوجه القصور في مهارات أخذ التاريخ المرضي لدى طلاب الطب في السنة النهائية خلال مقررات طب الأسرة في جامعة القصيم، بالمملكة العربية السعودية.

طرق البحث: تم جمع وتحليل جميع أوراق الاختبارات السريرية المبينة موضوعياً، لتقييم المقدرة على أخذ التاريخ المرضي في الامتحانات النهائية من ٢٠١٦ إلى يناير ٢٠١٨.

النتائج: تم تقييم ما مجموعه ٩٤ ورقة اختبار سريري مبني موضوعياً. وكانت بعض الإنجازات في مهارات أخذ التاريخ المرضي لدى الطلاب منخفضة (التشخيص التفريقي ٣١.٩٪، والأعراض المنذرة للأمراض ٣٩.٤٪، واستيضاح الأعراض الرئيسية المرتبطة بالشكوى ٤٧.٩٪، والكشف عن التوتر والقلق والاكنتاب ٥٩.٦٪). إلا أن أداء الطلاب كان أفضل فيما يتعلق بمهارات الاتصال بشكل عام، واستكشاف أفكار المرضى، ومخاوفهم وتوقعاتهم. حقق عدد أكبر من الذكور أداء أفضل من الإناث بشكل ملحوظ في بعض المهارات مثل مهارة تشجيع المريض على الحديث، والاستكشاف المناسب عن الأعراض المرتبطة بالشكوى الرئيسية، والبحث عن التشخيص التفريقي، واستبعاد الأعراض المنذرة.

الاستنتاجات: في هذه الدراسة، كان أداء الطلاب أفضل بشكل عام فيما يتعلق بمهارات الاتصال والتاريخ النفسي الاجتماعي. إلا أن الطلاب أظهروا ضعف المعرفة في أقسام أخرى من مهارات أخذ التاريخ المرضي، حيث إنهم فشلوا في صياغة أكثر من فرضية واحدة، وفي السؤال عن الأعراض الإنذارية. إن تعليم

مهارات الاتصال ومهارات التسبب السريري والربط بين الجوانب الجسدية والنفسية الاجتماعية لرعاية المرضى يعزز فهم المريض ككل، وينبغي أن يدرس في جميع مقررات المرحلة السريرية مع التركيز على التدريب عند المريض.

الكلمات المفتاحية: التواصل؛ طب الأسرة؛ مهارات أخذ التاريخ المرضي؛ جامعة القصيم

Abstract

Objectives: History taking is considered an important diagnostic tool in medicine. Medical students should be competent in focused history-taking skills to reach initial diagnosis. The aim of this study was to identify deficits in history-taking skills among final year medical students in family medicine courses in Qassim University, KSA.

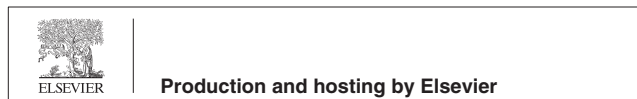
Methods: All objective structured clinical examination (OSCE) sheets were collected and analysed to evaluate the history-taking component of the final examination from 2016 until January 2018.

Results: A total of 94 OSCE sheets were evaluated. Achievement in some history taking skills of the students was low (differential diagnosis 31.9%, alarming symptoms of disease 39.4%, clarification of major complaint-associated symptoms 47.9%, and stress, anxiety, and depression screening 59.6%). However, the students' performances were better with respect to communication skills in general and exploration of the patients' ideas, concerns, and expectations. Significantly more male than female students had a better performance in some skills such as facilitating technique, appropriately exploring major complaint-associated symptoms, enquiring about differential diagnoses, and to rule out alarm symptoms.

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Conclusions: In this study, the students' performance was generally better with respect to communication skills and psychosocial history. However, the students showed poor knowledge in other aspects of history-taking skills as they failed to formulate more than one hypothesis and to ask about alarm symptoms. Teaching communication and clinical reasoning skills and connecting physical and psychosocial aspects of patient care promotes understanding of the patient as a whole and should be taught in all courses of the clinical phase, with emphasis on bedside training.

Keywords: Communication; Family medicine; History-taking skills; Qassim University

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Introduction

The diagnosis of a disease is based on three main components: (1) history obtained from the patient; (2) physical signs discovered on examination; and (3) necessary laboratory investigations.¹ History taking is an important skill that is still considered to be essential for clinical decision making.¹ History taking in clinical practice provides sufficient information in about 75% of patients, and is useful for making the diagnosis before performing a physical examination and additional tests.² Physicians make diagnoses from the patient's history in approximately 70%–90% of cases, according to some research studies.^{3,4} For both physicians and medical students, this indicates that history taking is the most important amongst diagnostic tools. Communication skills training has become an essential component of medical education worldwide and is an important part of becoming a good doctor.⁵

Patient-centred care has been associated with improved health status (more comfort and better mental health) and increased care efficiency (fewer investigations and referrals).⁶ In addition, the patient-centred approach is so important because it leads to better patient satisfaction when compared to disease-based practice.⁶ There are a few definitions of patient-centred care. However, three core themes were identified: patient participation and involvement in the care, the relationship between the patient and the healthcare professional, and the context where care is delivered.⁷ Another important issue is that patients with depression, anxiety, or stress usually present to primary health care (PHC) with somatic symptoms. Based on study at a health centre in Northern Portugal, 40.52%, 43.48%, and 45.06% of patients complained of some degree of depression, anxiety, and stress, respectively.⁸ Thus, teaching medical students to evaluate the patient with respect to biological, psychological, and social factors to understand and effectively manage clinical problems is important.⁹ At Qassim University (QU), the duration of the Family Medicine (FM) course is six weeks. The training in history-taking skills (including patient-centred care) is carried out

during the lectures and workshops in the first week. Subsequently, the training process is centred on experiential learning at the PHC centres.

The OSCE was used to reduce bias in the assessment of clinical competence in which various aspects of clinical skills are evaluated in a comprehensive and structured way, with close attention to the objectivity of the assessment.¹⁰ It consists of a variety of situations in which examiners, using predetermined criteria, assess a number of clinical skills in an objective manner.¹⁰ Tasks may include history taking, physical examination, breaking bad news, lab interpretation, or other competencies. The OSCE may include a clinical case simulation which involves an examination test in which a doctor plays the role of a patient and at the same time makes an evaluation of the candidate, allowing the doctor to directly assess the student's history-taking skills as can be done with the standard patient method. In fact, clinical simulation is used in many situations as in the College of Family Physicians of Canada Certification Exam.¹¹

With regard to history-taking skills, it was found in some studies that medical students were deficient in the basic skills required for interviewing patients.^{12–14} In Sudan, <40% of the students acquired the appropriate skills in identifying major problems, analysing symptoms, elucidating previous events, and coverage of social aspects. The students usually failed to formulate more than one hypothesis based on the history or simply were unable to ask relevant questions.¹² In another study, only 23% of the patients were provided the opportunity to complete his/her opening statement of concern.¹³ The same study also showed that the physicians interrupted patients' statements and directed questions toward a specific concern in 69% of the visits. At Michigan State University, one-third of the third-year medical students did not introduce themselves to their patients.¹⁴ The same study also reported performance problems with respect to other skills (inadequate history to rule out other possible diagnosis 60%, inadequate social history 38%, inadequate family history 35%, inadequate characterisation of problem dimensions 23%, inadequate past history 17%, and inadequate analysis of chief complaint 6%).

The community has the right to know that physicians who graduate from medical colleges are competent and can implement their profession in a compassionate and skilful manner. Medical colleges have the responsibility to demonstrate that such competence has been achieved.¹⁵ Therefore, evaluation of the students is of fundamental importance as it is a key element to ensure such competences, especially in history taking. However, there are few studies to focus on evaluation of the students' performance in history taking in medical schools in the KSA. The present study was carried out to identify the deficits in history taking skills among the final year students at the College of Medicine, QU, KSA during the FM course.

Materials and Methods

A cross sectional study was conducted among final year students of the College of Medicine at QU during FM courses from the middle of 2016 until January 2018. Five batches were included in this study. All OSCE sheets used to

evaluate the history-taking skills were collected, reviewed, and analysed. Any sheet with incomplete data was excluded. These sheets were designed to assess appropriate communication skills, history contents, and patients' psychosocial aspects (Tables 1–3). These marking sheets were designed to be as objective as possible by scoring specific observable skills and each skill being rated by the evaluator as good, partial, or poor. In addition, students' gender and total marks on the OSCE were recorded in the study.

During the final clinical examination of the FM course, a clinical case simulation (one OSCE station for history taking) involved an examination test in which the doctor played the role of the patient and at the same time evaluated the students to assess their history-taking skill competencies. The OSCE station consisted of a 7-min interview. Case scenarios were selected to reflect a spectrum of patient problems commonly encountered in FM such as headache, cough, lower back pain, abdominal pain, etc. All students of the same batch were exposed to the same case. A brief scenario about the case was available and each student was instructed to read it before starting the interview. However, the cases were constructed in a manner that required only one interview to define the problem.

Table 1: Frequency of communication skills and differences based on students' gender.

Tested skill	Frequency ^a all	Gender		P value ^b
		Male ^a	Female ^a	
Appropriate initiation of the session				
Good	92 (97.1)	53 (57.6)	39 (42.4)	0.673
Partial	2 (2.9)	1 (50)	1 (50)	
Poor	0 (0)	0 (0)	0 (0)	
Introduce yourself				
Good	73 (77.7)	41 (56.2)	32 (43.8)	0.249
Partial	11 (11.7)	5 (45.5)	6 (54.5)	
Poor	10 (10.6)	8 (80)	2 (20)	
Acknowledge and mention the patient by his/her name				
Good	64 (68.1)	42 (65.6)	22 (34.4)	0.057
Partial	21 (22.3)	9 (42.9)	12 (57.1)	
Poor	9 (9.6)	3 (33.3)	6 (66.7)	
Facilitating technique				
Good	60 (63.8)	44 (73.3)	16 (26.7)	0.000
Partial	2 (2.1)	1 (50)	1 (50)	
Poor	32 (34)	9 (28.1)	23 (71.9)	
Summarisation				
Good	67 (71.2)	32 (47.8)	35 (52.2)	0.011
Partial	4 (4.3)	3 (75)	1 (25)	
Poor	23 (24.5)	19 (82.6)	4 (17.4)	
Good closing of the session				
Good	83 (88.3)	45 (54.2)	38 (45.8)	0.133
Partial	2 (2.1)	1 (50)	1 (50)	
Poor	9 (9.6)	8 (88.9)	1 (11.1)	
Listening and no premature interruption				
Good	85 (90.4)	48 (56.5)	37 (43.5)	0.469
Partial	7 (7.4)	4 (57.1)	3 (42.9)	
Poor	2 (2.2)	2 (100)	0 (0)	
Appropriate eye contact				
Good	91 (96.8)	52 (57.1)	39 (42.9)	0.612
Partial	3 (3.2)	2 (66.7)	1 (33.3)	
Poor	0 (0)	0 (0)	0 (0)	

^a Percentages are written in parentheses.

^b Chi-square test.

Table 2: Frequency of history contents and differences based on students' gender.

Tested skill	Frequency ^a all	Gender		P value ^b
		Male ^a	Female ^a	
Identify the reason of attendance (Chief complaint)				
Good	90 (95.7)	51 (56.7)	39 (43.3)	0.429
Partial	4 (4.7)	3 (75)	1 (25)	
Poor	0 (0)	0 (0)	0 (0)	
Analysis of the chief complaint				
Good	62 (66)	37 (59.7)	25 (40.3)	0.522
Partial	31 (33)	16 (51.6)	15 (48.4)	
Poor	1 (1)	1 (100)	0 (0)	
Symptoms associated with the major complaint				
Good	45 (47.9)	34 (75.6)	11 (24.4)	0.003
Partial	37 (39.4)	16 (43.2)	21 (56.8)	
Poor	12 (12.8)	4 (33.3)	8 (66.7)	
Other symptoms to help with the differential diagnosis				
Good	30 (31.9)	21 (70)	9 (30)	0.002
Partial	33 (35.1)	11 (33.3)	22 (66.7)	
Poor	31 (33)	22 (71)	9 (29)	
Alarm symptoms				
Good	37 (39.4)	30 (81.1)	7 (18.9)	0.000
Partial	42 (44.6)	15 (35.7)	27 (64.3)	
Poor	15 (16)	9 (60)	6 (40)	
Similar problems in the past				
Good	69 (73.4)	41 (59.4)	28 (40.6)	0.457
Partial	1 (1.1)	0 (0)	1 (100)	
Poor	24 (25.5)	13 (54.2)	11 (45.8)	
Any concurrent health problems				
Good	79 (84)	46 (58.2)	33 (41.8)	0.056
Partial	8 (8.5)	2 (25)	6 (75)	
Poor	7 (7.5)	6 (85.7)	1 (14.3)	
Past history				
Good	73 (78.5)	45 (61.6)	28 (38.4)	0.225
Partial	7 (7.5)	2 (28.6)	5 (71.4)	
Poor	13 (14)	7 (53.8)	6 (46.2)	
Family history				
Good	70 (74.5)	44 (62.9)	26 (37.1)	0.002
Partial	11 (11.7)	1 (9.1)	10 (90.9)	
Poor	13 (13.8)	9 (69.2)	4 (30.8)	
Medications				
Good	84 (89.4)	49 (58.3)	35 (41.7)	0.140
Partial	5 (5.3)	1 (20)	4 (80)	
Poor	5 (5.3)	4 (80)	1 (20)	
Smoking				
Good	73 (77.7)	39 (53.4)	34 (46.6)	0.090
Partial	5 (5.3)	1 (20)	4 (80)	
Poor	16 (18.1)	13 (81.3)	3 (18.7)	

^a Percentages are written in parentheses.

^b Chi-square test.

The Statistical Package for Social Sciences (SPSS, version 21) was used for data management. Data was described using means with standard deviations (SD) for quantitative data (total marks) and the percentage for other data. The chi-square test was used to assess statistical significance of the differences in skill percentages according to gender. A P value < 0.05 was considered statistically significant.

Results

Out of 186 OSCE sheets, 92 were excluded (49.45%) because of incomplete data. Male students' sheets accounted

Table 3: Frequency of psychosocial history and differences based on students' gender.

Tested skill	Frequency ^a all	Gender		P value ^b
		Male ^a	Female ^a	
Idea, concern and expectation of the patients				
Good	86 (91.5)	49 (57)	37 (43)	0.061
Partial	3 (3.2)	0 (0)	5 (100)	
Poor	5 (5.3)	5 (100)	0 (0)	
Effect of the problem: on daily activity, life, work, and/or sleep				
Good	64 (68.1)	39 (60.9)	25 (39.1)	0.313
Partial	19 (20.2)	8 (42.1)	11 (57.9)	
Poor	11 (11.7)	7 (63.6)	4 (36.4)	
Exploring/screening stress, anxiety, and depression				
Good	56 (59.6)	28 (50)	28 (50)	0.061
Partial	21 (22.3)	12 (57.1)	9 (42.9)	
Poor	17 (18.1)	14 (82.4)	3 (17.6)	
Social history				
Good	71 (75.5)	36 (50.7)	35 (49.3)	0.006
Partial	11 (11.7)	6 (54.5)	5 (45.5)	
Poor	12 (12.8)	12 (100)	0 (0)	

^a Percentages are written in parentheses.

^b Chi-square test.

for 57.4% of the included number. The mean of total marks was 80.91 (out of 100), with SD of 8.03. The history deficiencies encompassed some defects in communication skills, history contents, and exploration of the patients' psychosocial aspects (Tables 1–3). Students' performances were generally better in communication skills followed by the psychosocial history but were not so good for history contents. The most skills achieved by the students (>90%) were appropriate history taking initiation followed by maintenance of eye contact, identification of the consultation reason, good listening skills, and exploration of patients' ideas, concerns, and expectations (ICE). However, the most deficient skills (ranked as poor or partial) consisted of questions to help in differential diagnosis (68.1%), questions to rule out serious diagnosis (60.6%), clarification of symptoms associated with major complaints (52.1%), and stress, anxiety and depression screening (40.4%). About one-third of the students had a deficit in facilitating technique, summarisation, and acknowledgement of the patient by his/her name.

Significantly more male than female students had better skills in the facilitating technique, to ask appropriately about the symptoms associated with major complaints, to search for differential diagnosis, and to look for possible alarm symptoms. Asking about family history was also achieved better by the male students. In contrast, female students had a better score in summarisation and exploration of social history.

Discussion

The findings of the current study highlighted the rate of various performance problems in history taking and that these problems included communication skills, history contents, and patients' psychosocial aspects. When compared to a study done among final year students in the Faculty of

Medicine in Sudan,¹² the current study had better results. As an example, a facilitating technique in the present study was achieved well in 64.9%, but only in 22.2% among the Sudanese students, and less than half of the students appropriately achieved the skills of identifying of major problems, analysing symptoms, elucidation of previous events and coverage of social aspects. Nevertheless, an important difference is that the current study evaluated performances during final exams, which could explain why the results were better than what were seen in Sudan. The premature interruption was documented in only 10% of our students' performances, which is better than another study.¹³ The students at QU maintained a high ability to establish the reason for the visit (chief complaint), which is consistent with other studies.^{14,16} Although our students accurately analysed the major symptoms with regard to onset, duration, frequency, course, and relieving and aggravating factors, there was some deficiencies in 34% of them. A study concerning the third-year family medicine clerkship at the University of California showed that student performance was highest in medical history taking and physical examination but lowest in information-sharing OSCE stations.¹⁷ Fortunately, 77.7% of the students in the present study appropriately introduced themselves to the simulated patients, which is slightly higher than another study.¹⁴

The physicians tried to translate the patients' history into possible diagnoses, as history taking is considered the most important diagnostic tool.^{3,4} However, a small proportion of the students appropriately took a more thorough history in order to help with differential diagnoses. Also in another research, 60% of the students had inadequate history to rule out other possible diagnoses.¹⁴ These might indicate that some students fail to generate a hypothesis and tend to concentrate on only one system.¹² Thus, they were usually unable to formulate relevant questions in order to cover other systems. As an example, students usually did not ask patients with lower back pain about urological or gastrointestinal symptoms in order to search for the referred pain from other possible sources and only focused on the musculoskeletal causes of the back pain. In another example, students usually forgot to take more history in order to identify the secondary causes of headache such as upper respiratory infections or referred tooth pain, rather concentrating more on the neurological causes such as migraine and tension-type headaches. Excluding a serious diagnosis by asking about alarm symptoms was deficient in 60.7% of the students. In primary care, patients present with a wide variety of complaints with often minor, but sometimes, serious symptoms. The emergence of new alarm symptoms is associated with the increased risk of cancer diagnosis, particularly in people ≥ 65 years.¹⁸ These data provide support for early warning symptoms assessment in an attempt to identify hidden cancers at an earlier and more treatable stage.¹⁸ Clinically relevant diagnoses are also made in a high proportion of patients presenting with warning symptoms. According to one study, the percentage diagnosed with either cancer or non-cancer diagnoses within 90 days was 25.7% in patients presenting with hemoptysis.¹⁹ Therefore, taking a history in order to identify alarm symptoms and rule out serious pathology must not be neglected. Another important issue, that of smoking

status, should be identified in each patient encounter to assess his/her smoking-associated risk and take the opportunity to provide smoking cessation support. The patients were appropriately asked about smoking by 77.7% of our students. Based on one study, patient self-reporting of smoking was only 11.3% and a substantial proportion of general doctors had no knowledge of their patients' smoking status.²⁰

With regard to the psychosocial history, the rate of exploring ICE components was achieved by 91.5% of the students. This rate is higher than what was seen in another study that showed that one, two, or three of the ICE components were expressed in only 38.5%, 24.4%, and 20.1%, of general practice consultation, respectively.²¹ Exploring ICE components is very important, as it was associated with lower rate of prescriptions and better patient satisfaction.^{6,21} The impact of illness on the patient's life was well-examined by 59% of the students. In one study, the great majority of patients with chronic daily headache presented with stress and significant reduction in the quality of life.²² Therefore, identifying the presence of stress and assessing the effects of a patient's problem on life quality can provide important information for therapeutic approaches.^{22,23} In PHC, the problem with depression is that the diagnosis often goes undiscovered.²⁴ The prevalence of depressive symptoms among patients attending PHC in KSA was 49.9%, of which 31% of the cases were mild and 13.4% consisted of moderate cases.²⁵ Most clinicians rely on spontaneous patients' mention of depression or anxiety in order to identify these disorders.²⁶ Therefore, missing their diagnosis is common and negatively affects patient care. Barriers to depression diagnosis include stigmas, patient denial, lack of physician knowledge, deficits in history taking skills, limited time, and lack of provider and treatment availability.²⁷ In addition, patients with depression or anxiety in PHC usually present with physical symptoms rather than psychological problems. In one primary care study, approximately two-thirds of patients with depression present with somatic symptoms.²⁸ Therefore, the use of simple diagnostic tools would aid early detection of depression and anxiety disorders.²⁹ In a prospective cohort study that evaluated adults presenting to a primary care facility with physical symptoms at baseline and at five years for mental disorders showed that 29% of patients actually had a mental disorder at baseline.³⁰ Over five years, only 33% were identified. This indicated that mental disorders were common, and their recognition and treatment remained low. Among the common concerns identified by the students and faculty observers at the University of California was the ability to obtain a good psychosocial history.¹⁷ During the FM course at QU, teaching the students to practice a bio-psycho-social approach is an essential part of history taking and would explain why the students achieved a higher rate in the psychosocial skills. However, this should also be taught in other clinical courses, not only FM.

The present study revealed that male students had better performance in some skills than female students. This fact contradicts the results of some studies.^{16,31–34} In Tuebingen University, the female students showed better performance with respect to empathy, content structure, and verbal and

non-verbal expressions.³¹ Female doctors reported speaking about patients' psychosocial situations significantly more often than males.³² Female primary care physicians also engaged in more communication skills that can be considered patient-centred and had longer visits than males.³³ Exploring the social issues of the patient and summarisation skills received a higher score in female students at QU. It was hypothesised that the tendency for better performance among female students reflects their harder preparatory work for the final examination.¹⁶ At QU, the difference in some teaching staff between male and female FM courses (three batches per year, one for female students) could explain the performance differences based on the gender. However, the low sample size of this study should not be overlooked, as it might have had some impact on study results.

Deficient history-taking skills among students are a common problem and may affect the development of clinical competence. The possible reasons for the deficits should be addressed. The number of the graduates from medical schools in KSA increased from 573 in 2000 to 1200 in 2009, and the total number is expected to reach 2636 in 2020.³⁵ Therefore, the rapid increase in the number of the medical schools in the last decade could result in poor quality education. In addition, there is a common practice among the clinical teachers to concentrate more on eliciting physical signs both at teaching sessions and at final examinations, particularly in courses other than FM. For example, the final examination in the internal medicine course at QU on 2013 included 8 OSCE stations, of which only one was for history taking.³⁶ This may divert students' attention from acquiring the appropriate skills for history taking. In addition, bedside teaching has been found to improve clinical skills, but it has been declining in the medical curriculum.³⁷ Since, QU does not have its own teaching hospital, bedside teaching occurs in hospitals and centres belonging to the Ministry of Health, which might affect teaching of these skills to medical students. Students' clinical reasoning skills could also not be enough taught in medical curricula, and this agrees with one study.³⁸

This study is one of the few to focus on evaluation of the students' performance in history taking in medical schools. However, there are some limitations to this study. No real patient was involved; instead the doctor (one evaluator) played the role of the patient and at the same time made the evaluation of the students. Rating of each skill as good, partial, or poor was prone to some subjectivity, since there was no rubric for that. No standardised assessment tool was used. Instead, the OSCE sheets were developed by FM staff at QU. Those might affect the quality of the assessment. In addition, the study results were taken from one medical school, so the results may not be generalised.

Conclusions

The students' performances were generally better with respect to communication skills followed by the psychosocial history taking, but less so in other history contents. The students usually failed to formulate more than one hypothesis and did not ask about alarm symptoms. Factors contributing to poor performance in history taking could

include focussing more on teaching skills other than history taking, poor clinical reasoning skills, and a decline in bedside teaching. Teaching communication and clinical reasoning skills and bridging physical and psychosocial aspects of patient care promotes understanding of the patient as a whole and should be taught in all courses of the clinical phase, with emphasis on bedside training. The rapid increase in medical schools probably affects quality, so further studies should be conducted, particularly in newly emerging colleges, taking into account both students' and teachers' perceptions.

Source of funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Conflict of interest

The author has no conflicts of interest to declare.

Ethical approval

All study information was kept confidential. Neither the student's name, nor his/her university number were written on any study document. This research proposal was approved by the Regional Ethical Committee of the Qassim region.

References

- Muhrer JC. The importance of the history and physical in diagnosis. *Nurse Pract* 2014 Apr 13; 39(4): 30–35.
- Lown B. *The lost art of healing: practicing compassion in medicine*. New York: Ballantine Books; 1999.
- Tsukamoto T, Ohari Y, Noda K, Takada T, Ikusaka M. The contribution of the medical history for the diagnosis of simulated cases by medical students. *Int J Med Educ* 2012; 3: 78–82.
- Gruppen LD, Palchik NS, Wolf FM, Laing TJ, Oh MS, Davis WK. Medical student use of history and physical information in diagnostic reasoning. *Arthritis Care Res* 1993; 6: 64–70.
- Kurtz S, Silverman J, Benson J, Draper J. Marrying content and process in clinical method teaching: enhancing the Calgary-Cambridge guides. *Acad Med* 2003; 78: 802–809.
- Stewart Moira. The impact of patient-centered care on outcomes. *J Fam Pract* 2000 September; 49(9): 796–804.
- Kitson A, Marshall A, Bassett K, Zeitz K. What are the core elements of patient-centred care? A narrative review and synthesis of the literature from health policy, medicine and nursing. *J Adv Nurs* 2013; 69(1): 4–15.
- Apóstolo João Luís Alves, Figueiredo Maria Henriqueta, Mendes Aida Cruz, Rodrigues Manuel Alves. Depression, anxiety and stress in primary health care users. *Rev Latino-Am Enfermagem* 2011 Apr; 19(2): 348–353 [Internet].
- Jaini PA, Lee JS. A review of 21st century utility of a biopsychosocial model in United States medical school education. *J Lifestyle Med* 2015 Sep; 5(2): 49–59.
- Zayyan M. Objective structured clinical examination: the assessment of choice. *Oman Med J* 2011; 26(4): 219–222.
- Brown JB, Handfield-Jones R, Rainsberry P, Brailovsky CA. Certification examination of the college of family physicians of Canada. Part 4: simulated office orals. *Can Fam Physician* 1996; 42: 1539–1542, 1545, 1547–8.
- Ahmed Awad M. Deficiencies of history taking among medical students. *Saudi Med J* 2002; 23(8): 991–994.
- Beckman HB, Frankel RM. The effect of physician behavior on the collection of data. *Ann Intern Med* 1984 Nov; 101(5): 692–696.
- Mavis BE, Wagner DP, Henry RC, Carravallah L, Gold J, Maurer J, et al. Documenting clinical performance problems among medical students: feedback for learner remediation and curriculum enhancement. *Med Educ Online* 2013; 18: 20598.
- Shumway J, Harden R. AMEE guide no. 25: the assessment of learning outcomes for the competent and reflective physician. *Med Teach* 2003; 25: 569–584.
- Taveira-Gomes I, Mota-Cardoso R, Figueiredo-Braga M. Communication skills in medical students— an exploratory study before and after clerkships. *Porto Biomed J* 2016; 1(5): 173–180.
- Prislin MD, Fitzpatrick CF, Lie D, Giglio M, Radecki S, Lewis E. Use of an objective structured clinical examination in evaluating student performance. *Fam Med* 1998 May; 30(5): 338–344.
- Jones R1, Latinovic R, Charlton J, Gulliford MC. Alarm symptoms in early diagnosis of cancer in primary care: cohort study using General Practice Research Database. *BMJ* 2007 May 19; 334(7602): 1040.
- Jones R, Charlton J, Latinovic R, Gulliford MC. Alarm symptoms and identification of non-cancer diagnoses in primary care: cohort study. *BMJ* 2009 Aug 13; 339: b3094.
- Bryant j, Carey M, Sanson-Fisher R, Mansfield E, Regan T, Bisquera A. Missed opportunities: general practitioner identification of their patients' smoking status. *BMC Fam Pract* 2015; 16: 8.
- Matthys J, Elwyn G, Van Nuland M, et al. Patients' ideas, concerns, and expectations (ICE) in general practice: impact on prescribing. *Br J Gen Pract* 2009 Jan 1; 59(558): 29–36.
- Galego JC, Moraes AM, Cordeiro JA, Tognola WA. Chronic daily headache: stress and impact on the quality of life. *Arq Neuro Psiquiatr* 2007 Dec; 65(4B): 1126–1129.
- Duenas M, Ojeda B, Salazar A, Mico JA, Failde I. A review of chronic pain impact on patients, their social environment and the health care system. *J Pain Res* 2016; 9: 457–467.
- Kamphuis MH, Stegenga BT, Zuithoff NP, King M, Nazareth I, de Wit NJ, et al. Does recognition of depression in primary care affect outcome? The PREDICT-NL study. *Fam Pract* 2012; 29(1): 16–23.
- Al-Qadhi W, Rahman S, Ferwana MS, Abdulmajeed I. Adult depression screening in Saudi primary care: prevalence, instrument and cost. *BMC Psychiatr* 2014; 14: 190.
- Alegria M, Nakash O, Lapatin S, Oddo V, Gao S, Lin J, Normand SL. How missing information in diagnosis can lead to disparities in the clinical encounter. *J Public Health Manag Pract* 2008 Nov; 14(Suppl): S26–S35.
- Goldman LS, Nielsen NH, Champion HC. Awareness, diagnosis, and treatment of depression. *J Gen Intern Med* 1999 Sep; 14(9): 569–580.
- Tylee A, Gandhi P. The importance of somatic symptoms in depression in primary care. *Prim Care Companion J Clin Psychiatry* 2005; 7: 167–176.
- Allgulander C. Generalized anxiety disorder: what are we missing? *Eur Neuropsychopharmacol* 2006 Jul; 16(Suppl 2): S101–S108.
- Jackson JL, Passamonti M, Kroenke K. Outcome and impact of mental disorders in primary care at 5 years. *Psychosom Med* 2007 Apr; 69(3): 270–276.
- Graf J, Smolka R, Simoes E, Zipfel S, Junne F, Holderried F, et al. Communication skills of medical students during the OSCE: gender-specific differences in a longitudinal trend study. *BMC Med Educ* 2017; 17: 75.
- Löffler-Stastka H, Seitz T, Billeth S, Pastner B, Preusche I, Seidman C. Significance of gender in the attitude towards doctor-patient communication in medical students and physicians. *Wien Klin Wochenschr* 2016; 128(17): 663–668.

33. Roter DL, Hall JA, Aoki Y. Physician gender effects in medical communication. **JAMA** 2002 Aug 14; 288(6): 756–764.
34. Wiskin CM, Allan TF, Skelton JR. Gender as a variable in the assessment of final year degree-level communication skills. **Med Educ** 2004 Feb; 38(2): 129–137.
35. Althubaiti A, Alkhazim M. Medical colleges in Saudi Arabia: can we predict graduate numbers? **High Educ Stud** 2014; 4: 1–8.
36. Moeen-uz-zafar, Al Shammari O, Aljarallah B. Evaluation of interactive OSCE for medical students in the subject of medicine; reliability and validity in the setting of internal vs. External examiners. **Ann Public Health Res** 2015; 2(4): 1030.
37. Peters M, Ten Cate O. Bedside teaching in medical education: a literature review. **Perspect Med Educ** 2014 Apr; 3(2): 76–88.
38. Im Sunju, Kim Do-Kyong, Kong Hyun-Hee, Roh Hye-Rin, Oh Young-Rim, Seo Ji-Hyun. Assessing clinical reasoning abilities of medical students using clinical performance examination. **Korean J Med Educ** 2016 Mar; 28(1): 35–47.

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