

Perceptions Of Medical Students Regarding Excellence In Student Engagement: A Multi-Center Saudi Arabian Perspective

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Background: Students and faculty members should work together as partners in the present era of modern medical education. Many medical schools across the globe are seeking excellence in medical education, including excellence in student engagement.

Objective: The current study aimed to explore Saudi medical students' perceptions regarding the Association for Medical Education in Europe's (AMEE) ASPIRE criteria for excellence in student engagement.

Design: A cross-sectional study targeting Saudi medical students from the five main universities in Saudi Arabia. A questionnaire was designed based on the AMEE's ASPIRE criteria for recognition of excellence in student engagement. Data were collected via SurveyMonkey and analyzed using SPSS (Version 20). Twenty-three randomly selected medical students from Imam University were interviewed as well.

Results: Seventy-six percent (n=759) of students completed the survey. In general, Saudi medical students supported the ASPIRE criteria for student engagement. Students with the highest GPA (4.5–5) constituted 44% of students supporting excellence in student engagement. Students in medical schools using problem-based learning (PBL) agreed more than did those who did not follow a PBL curriculum. Most of the students at Imam Mohammad Ibn Saud University (87.8%) agreed that students should be formally and informally involved in peer-assisted teaching. The highest percentage of students who agreed was from Imam University as compared to the other four universities ($P = 0.0001$).

Conclusion: Saudi medical students support student engagement criteria as stated in the ASPIRE Awards criteria for excellence in student engagement. A significant proportional relationship was observed between increments in GPA and support of student engagement activities. The current study may encourage all colleagues around the world to implement the concept of "student engagement" in their universities. Additional studies should be conducted worldwide to seek international medical students' perceptions regarding student engagement.

Keywords: student engagement, student involvement, excellence in medical education, ASPIRE award, Saudi Arabia

Introduction

Student engagement is the time, and effort students devote to activities that are empirically linked to the desired outcomes of a college; additionally, it is what institutions do to encourage students to participate in such activities.¹ Student engagement is discussed and researched by experts in medical education. Nevertheless, students and faculty alike should work together as partners in the new era of modern medical education.

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Universities obtain their development and reputation from students' performance. Student engagement helps establish a good rapport between students and faculty members. Thus, leading to more achievements in terms of university development and the graduation of skilled and qualified medical students. Therefore, students should be participating in the development of the university's vision, the university's committees, the establishment of policy guidelines, and the accreditation process by providing appropriate feedback and critiques. Four essential points define student engagement: behavioral, focusing on student behavior and effective teaching practice; psychological, focusing on the individual internal process of engagement including behavior, cognition, emotion and the will to succeed; social-cultural, focusing on the impact of the broader social, cultural and political context; and holistic attempts to combine the strands.²

An argued drawback of this approach is that, in the use of survey methods, the issues of engagement become focused on what students are doing. Therefore, any assessment of students' perceptions or expectations of their experience is lost.³ On the other hand, the UK's Quality Assurance Agency (QAA) has mentioned that higher education providers should take deliberate steps to engage all students through the following. Individually and collectively, as partners in the assurance and enhancement of their educational experience.⁴ Student engagement cannot be successfully pursued at the level of the individual, teacher, school, or faculty. But must be pursued holistically in a "whole-of-university" approach and with a shared understanding of what the institution seeks to achieve.⁵

Engagement needs to occur early in university life, with attention paid to the establishment of relationships (social and academic) between staff and students.³

The ASPIRE-to-Excellence initiative was launched by the international association for medical education in Europe (AMEE) in 2012 to recognize and reward excellence in teaching and learning in medical, dental and veterinary schools.^{6,7} Student engagement is part of the ASPIRE-to-Excellence initiative. It rewards schools whose students contribute to the academic community and who are consulted about – as well as take active roles, are involved and participate in – forming the teaching-learning experience.

Active learning is a globally recognized trend by authorized leaders and institutions of higher and medical education. There is no doubt that engaging student in a

variety of educational activities will enhance their learning experience. Currently, there are have been no studies around the world that took the students' opinion of ASPIRE criteria of student engagement. Therefore, the present study aimed to explore Saudi medical students' perceptions regarding the AMEE's ASPIRE criteria for excellence in student engagement.

Materials And Methods

Study Design

A cross-sectional study was conducted across five medical schools located in different regions of Saudi Arabia between October and December 2017.

Study Setting, Sampling, And Population

The five selected medical schools were as follows: two from Riyadh, one from Qassim, one from Jeddah and one from Madinah al Munawara. Three of them had adopted problem-based, integrated and community-oriented curricula, namely Imam Mohammad Ibn Saud Islamic University, King Saud University, and Qassim University. The email addresses and mobile phone numbers of 200 randomly selected students using systematic random sampling by selecting every third student from the list of each academic batch of each university. The participants were from Year 1 to the internship year, were requested from the vice-dean or the head of the student affairs unit of the five chosen medical schools. The students included in the study were males and females from 18–38 years of age. Students were selected from the five main public universities.

Study Questionnaire And Data Collection

Semi-structured interviews were conducted at Imam Mohammad Ibn Saud Islamic University, with volunteer medical students representing the first, second, third, and fourth years. (A total of 23 students were interviewed: four from the first year, five from the second year, seven from the third year and seven from the fourth year.) They were called on weekdays at Imam University and gathered in interactive rooms. One student at a time was interviewed. Each interview consisted of three questions, from the International AMEE's ASPIRE criteria for recognition of excellence in student engagement, about their knowledge of, and ideas for, student engagement, the effectiveness of student engagement and strategies of participation in broader perspectives. All the students were asked the same questions about the following: their ideas for

possible situations in which students can be engaged, whether or not students' feedback is checked and considered by the school's administration and the impact of students' interaction with teachers. Students were asked for informed consent before they were interviewed. They were provided with adequate information about the study and were given the right to make an autonomous decision to participate in the interview.

The survey questionnaire was then designed based on the International AMEE's ASPIRE criteria for recognition of excellence in student engagement and the analysis of the qualitative focused group interviews. It consisted of 25 questions that encompassed the ASPIRE criteria to check the implementation of student engagement in universities.⁷ The items consisted of socio-demographic data (e.g. age, sex, student's year, university and GPA) and medical students' perceptions regarding student engagement. The survey was distributed using SurveyMonkey to the email addresses and mobile phone numbers of the 1,000 randomly selected medical students, 200 from each of the five designated medical schools. Three follow-up reminder messages were sent (on days two, five, and seven). The text messages that were sent to the students included the necessary information about the study, and each student had the right to participate in the questionnaire of his/her own free will.

Data were analyzed using Statistical Package for the Social Sciences (SPSS Inc., Chicago) software, Version 20. The Chi-square test was used to test the association between different variables and the socio-demographic data of participants; $P \leq 0.05$ is considered statistically significant. In addition, a Likert scale was used to evaluate the degree of medical students' agreement with respect to student engagement aspects.

Ethical Statement

The study has been reviewed by the Institutional Review Board (IRB) of the College of Medicine at Imam Mohammad Ibn Saud Islamic University, IRB Registration: HAPO-01-R-011. The work was carried out in accordance with the Declaration of Helsinki. Consent was obtained before the students were asked to fill out the online questionnaire.

Results

Of the 1,000 targeted medical students, 759 (76%) completed the survey. Among them, 490 (65%) were male, and 269 (35%) were female (Table 1). In general, the number

Table 1 Demographic Information Of Participants

Participants	n (%)
Gender	
Male	490(64.6)
Female	269(35.4)
Year	
1st year	215(28.3)
2nd year	200(26.4)
3rd year	116(15.3)
4th year	101(13.3)
5th year	99(13.0)
Internship	28(3.7)
Age	
18–22	575(75.8)
23–26	177(23.3)
27–30	4(0.5)
31–34	2(0.3)
35–38	1(0.1)
GPA	
4.5–5	354(46.6)
4–4.5	179(23.6)
3.5–4	111(14.6)
3–3.5	77(10.1)
Less than 3	38(5.0)
University	
Al Imam University	196(25.8)
King Saud University	181(23.8)
King Abdulaziz University	162(21.3)
Taiba University	103(13.6)
Al Qassim University	117(15.4)

of students who agreed with most of the questions was higher than the number of students who disagreed with a similar percentage of males and females by only 5–20% differences. There were a few exceptions in student engagement concepts, such as engagement in peer assessment ($P = 0.85$). Which showed the number of students who disagreed – males (51.8%) and females (53.9%) – was higher than those who agreed (Figure 1).

Figure 2 demonstrates that the number of students, from the main five medical schools, who agreed on student engagement in the accreditation process was higher than the number of students who disagreed [$P = 0.0001$, Imam University (56.6%), King Saud University (72.9%), Qassim University (88.9), King Abdulaziz University (67.9) and Taiba University (69.9)].

The percentage of students who believed that students should participate as active learners with a responsibility for

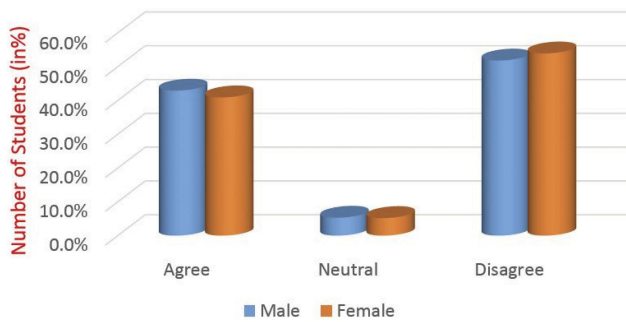


Figure 1 Perception of students from different universities in Saudi Arabia regarding peer assessment.

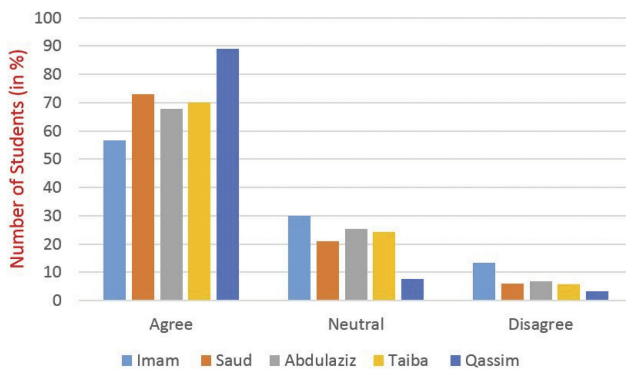


Figure 2 Perception of students from different universities in Saudi Arabia regarding students' involvement in the school's accreditation process.

their learning was higher in PBL medical schools ($P = 0.0001$) (Figure 3). Over two-thirds (72%) of medical students from the five main medical schools agreed that students should be involved formally and informally in peer-assisted learning.

Figure 4 demonstrates that most of the students who agreed about students' participation as active learners with a responsibility for their learning were those with a GPA of 4.5 to 5 (43.9%) ($P = 0.006$).

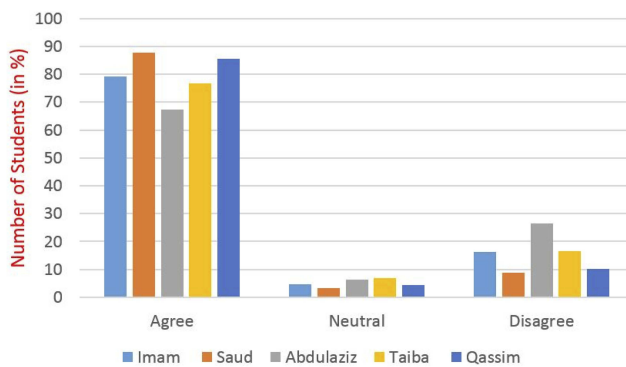


Figure 3 Perception of students from different universities in Saudi Arabia regarding students' participation as active learner with responsibility for their own learning.

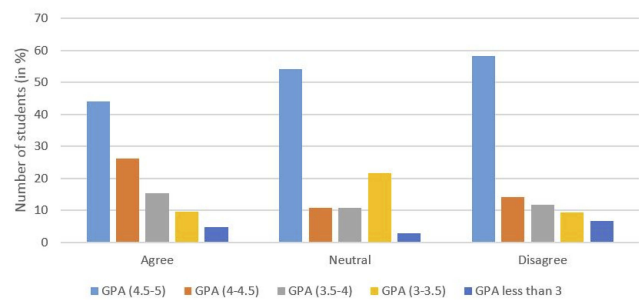


Figure 4 Students' perception regarding their participation as active learners with responsibility for their own learning in relation to their GPA.

As shown in Figure 5, most of the students from the five main universities agreed that students should be involved formally and informally in peer teaching. However, Imam students had the highest percentage (87.8%) compared to the others ($P = 0.0001$).

Most of the students from both PBL and non-PBL medical schools supported the concept of student engagement with arranged extracurricular activities. But the percentage of PBL medical schools' students was higher, as shown in Figure 6 ($P = 0.0001$).

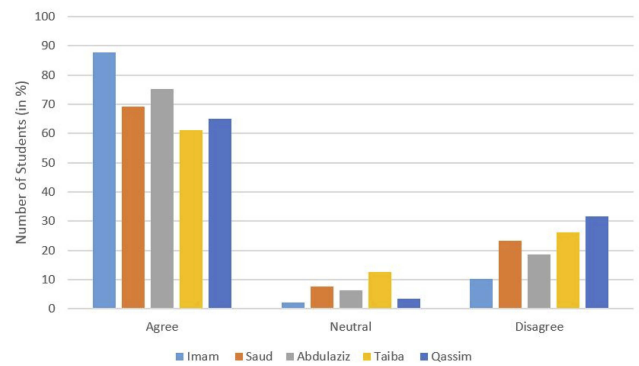


Figure 5 Perception of students from different universities in Saudi Arabia regarding students' involvement, formally and informally, in peer teaching.

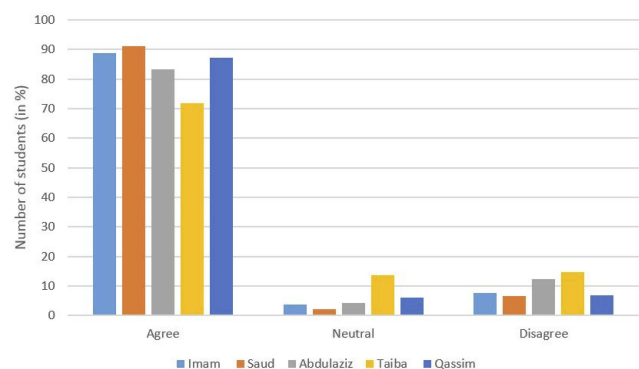


Figure 6 Perception of students from different universities in Saudi Arabia regarding students' engagement with arranged extracurricular activities.

All 23 medical students who were interviewed from Imam University responded to all three questions of the interview. Most of the students believed that participating in extracurricular activities is recommended. Five students suggested participating in conferences, school committees, and campaigns. Two students mentioned that students should participate in research activities. Other suggestions were participating in peer teaching, leadership, and sports.

Discussion

To our knowledge, this is one of the first studies conducted in Saudi Arabia that has examined students' perceptions regarding ASPIRE's criteria for excellence in students' engagement. In which including a large sample size from five main medical schools. Student engagement can make students acquire additional extracurricular skills in addition to the academic skills learned, which can also improve the university outcomes.

The current study has shown that most Saudi medical students from five of the main public medical schools believed that students should be engaged with their medical schools' faculty members in multiple aspects. However, the term "student engagement" has traditionally been less commonly used in some parts of the world, including Saudi Arabia.

Some educators assumed that improving student engagement using active learning methods promotes the development of higher-order cognitive skills.⁸⁻¹⁴

Many medical schools have a limited concept of "student engagement", likely thinking of it as being involved only in lecture halls, though the concept is much broader.¹⁵ Students should be engaged in the college's strategic planning process, accreditation activities, and quality assurance activities. Students should also be engaged in the curriculum development committee. They should be represented in the most relevant committees at the college and university level.

Moreover, they should be involved in all community support services. Students should also be engaged in research activities and participate in scientific meetings and conferences at local, regional, and international levels. Debates have focused on students' feedback and students' approaches to learning.⁹ On the other hand; this study proved that the concept of student engagement is well-recognized among some of the best-known Saudi medical schools. Thus, it should be adopted and implemented in all undergraduate medical education schools worldwide.

Furthermore, the study showed that students from PBL medical schools were more inclined to accept the idea of student engagement. This could be explained by the fact that students in PBL curriculum schools had better

communication, reasoning, interpersonal, presentation, and problem-solving skills.¹⁶ Therefore, students from PBL schools tend to be active and pro-active learners and are willing to engage in broader activities inside and outside the medical school. However, many students from the other two traditional medical schools have also agreed to most of the student engagement concepts. But with a lower percentage when compared to PBL medical school students. Hence, the current study does not prove that only students from PBL medical schools support the idea of student engagement since it was also supported by medical students from non-PBL medical schools.

Most of the students who agreed about students' participation as active learners with a responsibility for their own learning were those with the highest GPAs. This was a surprising finding because it is contrary to a commonly held belief that students with the highest GPAs tend to concentrate solely on their studies to keep their GPAs as high as possible. However, those students appear to appreciate the concept of student engagement and, as they are considered the top students, they tend to seek excellence in all aspects of education, including extra-curricular activities. Therefore, a proportional relationship exists between having a high GPA and being an active learner.

The study has shown a controversy regarding student engagement in peer assessment, as over half the participants – males (51.8%) and females (53.9%) – disagreed with the notion of engaging in peer assessment. They believe it is better for students to remain uninvolved in peer assessment. This could be due to a lack of trust among students, who think that one student may attempt to deduct marks from other students to achieve a better score. However, the number of students who agreed on peer assessment was also high but less than those who disagreed.

Most of the medical students from all five universities were more likely to agree with the idea of being involved formally and informally in peer learning and teaching. However, the highest percentage was from Imam Mohammad Ibn Saud Islamic University students (87.8%). Therefore, it is possible that a strong relationship exists among medical students, especially at Imam Mohammad Ibn Saud Islamic University, where they prefer studying in groups rather than solo. A reasonable explanation for this hypothesis is the teaching system at Imam medical college. Also, the fact that students in PBL curriculum schools tend to participate more with their peers and faculty members could support this hypothesis. In addition, the concept of student engagement with extracurricular activities was supported by

most of the students from both PBL and non-PBL medical schools. However, it was supported primarily by PBL medical school students. In addition, most of Imam medical students who were interviewed suggested that students should participate in extracurricular activities, mostly in conferences, school committees and campaigns.

The study results regarding medical students' perceptions regarding student engagement do not represent all medical students in the Kingdom of Saudi Arabia because the study does not cover all medical schools in the Kingdom. Nevertheless, most of the medical students are aware of student engagement and agree with the concept of involving students in medical schools and being active learners rather than mere students.

Conclusion

Saudi medical students from the five main Saudi medical schools generally supported the ASPIRE Awards criteria for excellence in student engagement. Particularly, engagement with extracurricular activities, peer teaching, involvement in medical school's accreditation process and participation as active learners. However, a slightly higher percentage was from PBL medical schools' students when compared to non-PBL medical schools' students. A statistically significant proportional relationship was measured between increments in GPA and support of student engagement activities.

The current study may encourage all colleagues around the world to implement the concept of "student engagement" in their universities. Additional studies should be conducted across the globe to explore the perceptions, regarding student engagement, of medical students from different regions and countries.

Availability Of Data

The data are not publicly shared to ensure the privacy of participants.

Disclosure

The authors report no conflicts of interest in this work.

References

1. Kuh GD. What student affairs professionals need to know about student engagement. *J Coll Stud Dev.* 2009;50(6):683–706. doi:10.1353/csd.0.0099
2. Kahu ER. Framing student engagement in higher education. *Stud High Educ.* 2013;38(5):758–773. doi:10.1080/03075079.2011.598505
3. Hand L, Bryson C. *Student Engagement.* London: Staff and Educational Development Association (SEDA); 2008.
4. QAA. *UK Quality Code for Higher Education. Part B: Chapter B5: Student Engagement.* Gloucester: QAA The Quality Assurance Agency for Higher Education; 2012.
5. Baron P, Corbin L. Student engagement: rhetoric and reality. *High Educ Res Dev.* 2012;31(6):759–772. doi:10.1080/07294360.2012.655711
6. ASPIRE-to-Excellence Award. The Association for Medical Education in Europe (AMEE). Available from: <https://amee.org/awards-prizes/aspire-award>. Accessed November 19, 2017.
7. Patricio M. The ASPIRE initiative: excellence in student engagement in the school. *Educ Méd.* 2016;17(3):109–114. doi:10.1016/j.edumed.2016.07.003
8. Trowler V. *Student Engagement Literature Review.* New York: HEA Higher Education Academy; 2010.
9. Hopper MK, Brake DA. Student engagement and higher-order skill proficiency: a comparison of traditional didactic and renewed integrated active learning curricula. *Adv Physiol Educ.* 2018;42(4):685–692. doi:10.1152/advan.00149.2018
10. Bonwell C, Eison J. Active learning: creating excitement in the classroom. ASHE-ERIC Higher Education Report. Washington (DC): School of Education and Human Development, George Washington University; 1991.
11. Freeman S, Eddy SL, McDonough M, et al. Active learning increases student performance in science, engineering, and mathematics. *Proc Natl Acad Sci USA.* 2014;111(23):8410–8415. doi:10.1073/pnas.1319030111
12. Hopper MK. Assessment and comparison of student engagement in a variety of physiology courses. *Adv Physiol Educ.* 2016;40(1):70–78. doi:10.1152/advan.00009.2016
13. Johnson DW, Johnson RT, Stanne MB. *Cooperative Learning Methods: A Meta-analysis.* Minneapolis (MN): University of Minnesota; 2000.
14. Michael J. Where's the evidence that active learning works? *Adv Physiol Educ.* 2006;30(4):159–167. doi:10.1152/advan.00053.2006
15. Thomas L Building student engagement and belonging in Higher Education at a time of change: Final report from What Works? Student Retention & Success programme. 2008–2011.
16. Asad M, Iqbal K, Sabir M, Asad M, Iqbal K, Sabir M. Effectiveness of problem-based learning as a strategy to foster problem solving and critical reasoning skills among medical students. *J Ayub Med Coll Abbottabad.* 2015;27(3):604–607.

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