**2H1 (19745)**  
**Educational environment and quality of life of medical students – A multi-centre study**  

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**Background:** The educational environment stands out as a predisposing factor for influencing quality of life (QoL) among medical students. We aimed to assess perceptions of the educational environment and QoL among medical students, and to determine the association between these measures.  

**Summary of Work:** This is a study with a randomised sample of 1,350 students from 22 Brazilian medical schools. We used the DREEM, WHOQOL-BREF questionnaires and self-assessment of QoL.  

**Summary of Results:** The overall DREEM scores (119.4±27.1) revealed that the student perceptions of the educational environment were positive. The scores in all domains were significantly lower for students in their final years of medical school (p <0.001), except in the academic self-perceptions domain. Individual items of DREEM with mean score of ≤ 2.0 were 3, 4, 5, 7, 14, 17, 22, 24, 25, 27 and 29. The female students presented lower scores in the physical and psychological domains on the WHOQOL-BREF (p<0.001). The QoL self-assessment indicated that the QoL scores in medical school were significantly lower than QoL scores in their overall lives (p<0.001). The Pearson’s correlation coefficients demonstrated the existence of a positive correlation between perceptions of the educational environment and QoL.  

**Discussion and Conclusions:** Although the students’ perception of their educational environment is positive, our study shows that medical school has an impact on their QoL. The worst scores were found for students in their final years of medical school and for female students.  

**Take-home messages:** Gender differences in QoL and perceptions of the educational environment in medical school must be considered in curriculum planning and student support.

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**2H2 (18413)**  
**Assessment of the Quality of Educational Environment During Undergraduate Clinical Teaching Years in the King Abdul Aziz University, College of Medicine in Saudi Arabia**  

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**Background:** The undergraduate curricula of medical schools in King Abdulaziz University Saudi Arabia, is traditional, like most of the medical schools in the Middle East region. A measure of the educational environment in the college of medicine as perceived by students would assist educators and college administration personnel in gauging the quality of the learning occurring within this important venue.  

**Summary of Work:** During the academic year 2012/2013, the DREEM questionnaire was distributed and collected by the undergraduate student leader of the same year to all 280 females and males clinical stage medical students. 4th year, 5th year and 6th year clinical stage students are located in the hospital sites for their clinical teaching. Each medical student. 4th year, 5th year and 6th year.  

**Summary of Results:** One hundred and ninety-six female and male students completed the questionnaire from the total students sample (280) representing a response rate of 70%. There were 109 males (out of 150) representing 72.6% and 95 females (out of 130) representing 73%: the female students comprised 48.5% of the total responding students, while the male students represented 51.5%. There were no individual areas of excellence (that is no item scored > 3.5).  

**Discussion and Conclusions:** The DREEM provides useful diagnostic information about medical schools, whether it is in developing or western developed countries. The DREEM gives a clear indication of the priorities for reform of the curriculum. These data can also serve as a baseline for a longitudinal quality assessment of students’ perceptions of the changes planned for the college of medicine, Saudi Arabia.
Discussion and Conclusions:
The focus group discussions.

Clinical faculty. Valuable insights were obtained from science faculty were significantly higher than the than attending faculty ratings.

The scores of the basic analyses identified the strengths and areas necessitating improvement. The scores of the faculty was 136/200. The individual item Cronbach’s Alpha of 0.94 was obtained. Median total AMEET inventory which was piloted with 62 faculty. A resulted in the development and validation of the AMEET inventory meets the need to assess faculty concerns were also highlighted.

Take-home messages: The AMEET inventory is a valid and highly reliable instrument to assess faculty members’ perceptions of educational environment.

Background: Educational environment (EE) experienced by teachers involves all the conditions affecting teaching and learning activities. We aimed to develop an inventory to measure faculty perceptions of EE: the Assessment of Medical Education Environment by Teachers (AMEET) inventory; ascertain faculty perceptions of EE at our institution (CoM) and identify reasons for any differences in perceptions.

Summary of Work: The study included both qualitative and quantitative methods: a modified Delphi technique, a cross-sectional survey and focus group discussions. The AMEET inventory was developed through a three-stage process involving a modified Delphi technique and answered by all CoM faculty. Median total, domain and individual statement scores were compared using Wilcoxon Rank sum test. Focus group discussions were conducted to gain in-depth insights.

Summary of Results: The modified Delphi technique resulted in the development and validation of the AMEET inventory which was piloted with 62 faculty. A Cronbach’s Alpha of 0.94 was obtained. Median total score of the faculty was 136/200. The individual item analyses identified the strengths and areas necessitating improvement. The scores of the basic science faculty were significantly higher than the clinical faculty. Valuable insights were obtained from the focus group discussions.

Discussion and Conclusions: The AMEET inventory is a valid and highly reliable instrument to assess faculty members’ perceptions of EE. While the faculty members had a positive perception of the EE in the undergraduate medical program, a few areas of concern were also highlighted.

Take-home messages: The valid and highly reliable AMEET inventory meets the need to assess faculty members’ perceptions of educational environment.

Take-home messages: The LEP tool can be used as an ongoing evaluation tool of the LE in postgraduate programs.

Background: Professionalism is a key physician competency upon which medical training programs base objectives and evaluation. The learning environment (LE) is also now one of the Liaison Committee on Medical Education (LCME) accreditation standards for medical institutions. Post graduate programs require an instrument to formally assess the learning environment to ensure best practices. The presentation will include results of the Learning Environment for Professionalism (LEP) survey in residents and the challenges in regards to implementation.

Summary of Work: The LEP has been validated (reliability and validity) in the undergraduate setting (C. Thrush, Medical Teacher 2011). It is a brief survey that has items balanced to assess both professional and unprofessional behaviours on clinical rotations. The 11 items are rated on a 4 point scale. This study was designed to determine the feasibility applicability of the LEP scale in the postgraduate learning setting. As such the trainees in four programs during a 12 month period (2013) were asked to complete ratings on the LEP at the end of their rotations. Ratings were made for other residents and attending faculty. Results were collected in aggregate to ensure confidentiality.

Summary of Results: The response rate was 87%. The program and rotation ratings were very similar leading to low reliability. All items rated positively, but displays of altruism tended to have lower ratings as were ratings for derogatory comments. Ratings for withholding information and discrimination tended to be quite high (in the favorable spectrum). There was an overall tendency for resident ratings to be lower than attending faculty ratings.

Discussion and Conclusions: The challenges of implementing the project across programs and evaluation of the learning environment will be discussed.

Take-home messages: The LEP tool can be used as an ongoing evaluation tool of the LE in postgraduate programs.
2H5 (20307)
Medical Students’ Perceptions of their Learning Environment, Well-being, and Academic Self-Concept

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Background: Medical education seems to be a demanding and overwhelming experience for many students. The perceived learning environment plays an important role in students’ well-being.

Summary of Work: Our study investigated medical students’ perceptions of their learning environment and how these related to well-being in terms of experienced exhaustion and losing interest in personal studies. Experiences were compared between lecture-based learning (LBL) and problem-based learning (PBL) environments.

The MED NORD questionnaire was used to measure students’ experiences of their learning environment, experienced well-being (i.e., exhaustion and lack of interest), and academic self-concept. A total of 610 students participated. Structural equation modelling was used to investigate relationships between variables. A cross-sectional design was used to compare experiences between different medical schools.

Summary of Results: Perceptions of worry about future workload were found to positively relate to exhaustion, whereas perceptions of worry and study satisfaction both negatively related to lack of interest. Experienced high workload related to both exhaustion and lack of interest. In turn, lack of interest was negatively related to academic self-concept, whereas exhaustion was positively related to it. PBL students reported higher levels of worry concerning future workload, but they also experienced receiving more feedback. In addition, novice PBL students experienced higher levels of exhaustion and better academic self-concept than LBL students. No such differences were found in the clinical phase.

Discussion and Conclusions: Lack of interest concerning personal studies appeared to be more unfavourable than experiences of exhaustion. The PBL environment appeared challenging, but only during the first years of study.

2H6 (22448)
The association between learning environment climate and empathy

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Background: Cultivating medical students’ empathy is highly emphasized in medical education. The objective of this study was to examine the association between the learning environment climate and the degree of empathy of medical students.

Summary of Work: A total of 157 (60.15%) medical students participated in this study. Learning environment climate was measured using 10, 2, 3 items, with a scale of 1 (never) to 4 (always), selected from the dimension of teacher-learner relationship, physician-patient relationship, and self-efficacy in the Learning Environment Scale, respectively. Empathy was examined using six items, with a scale of 1 (strongly disagree) to 6 (strongly agree), selected from the empathy scale of the Ko’s Mental Health Questionnaire. The association between the learning environment climate and the degree of empathy was assessed using structural equation modeling (SEM).

Summary of Results: We examined the goodness-of-fit of the three-factor model, the teacher-learner relationship, the physician-patient relationship, and the self-efficacy, using non-normed fit index (NNFI), comparative fit index (CFI), and root mean squared error of approximation (RMSEA). The values of NNFI, CFI and RMSEA indicated a good fit for the three-factor model. We tested the path model, the three-factor model and empathy, using SEM. The result showed a good fit for the path model (p=.9998).

Discussion and Conclusions: Our study showed that better learning environment climate perceived by medical students is significantly associated with their higher degree of empathy. In addition to promoting the degree of empathy using formal curriculum, medical educators should also pay more attention to hidden curriculum by cultivating better learning environment climate.

Take-home messages: In addition to promoting the degree of empathy by formal curriculum, medical educators should also pay more attention to hidden curriculum by cultivating better learning environment climate.