<table>
<thead>
<tr>
<th>PAPER SESSION 1</th>
<th>TUESDAY, 16TH OCTOBER 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOG Boardroom</td>
<td></td>
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<tr>
<td>Curriculum</td>
<td>1</td>
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<tr>
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<td>2</td>
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<td>3</td>
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<tr>
<td>Assessment</td>
<td>4</td>
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<td>5</td>
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<td>6</td>
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<td>9</td>
</tr>
<tr>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Session</td>
<td>Room</td>
</tr>
<tr>
<td>---------</td>
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</tr>
<tr>
<td>Session 2</td>
<td>BOG Side Boardroom</td>
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<td>BOG Boardroom</td>
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### PAPER SESSION 3

**BOG Boardroom**

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>Academic satisfaction of students in undergraduate nursing program: Study from public and private institutes of Islamabad</td>
<td>Gideon Victor</td>
</tr>
<tr>
<td>28</td>
<td>Going beyond your form - Learning experience of Masters in health professional education in Pakistan - A qualitative study of student's perspective</td>
<td>Saima Rafique</td>
</tr>
<tr>
<td>29</td>
<td>Exploring needs of medical students for co-curricular and extracurricular activities in a public sector medical university</td>
<td>M.Daood</td>
</tr>
<tr>
<td>30</td>
<td>Interest of undergraduate students towards research in a private medical college of Lahore, Pakistan.</td>
<td>Rabia Khurram</td>
</tr>
<tr>
<td>31</td>
<td>The Stressors of MBBS students in a private medical college</td>
<td>Attiya Rasheed</td>
</tr>
<tr>
<td>32</td>
<td>Endodontic teaching at a pre-clinical and clinical level in Punjab and Khyber-Pakhtunkhwa to undergraduate dental students</td>
<td>Alia Ahmad</td>
</tr>
</tbody>
</table>

**BOG Boardroom 2:30-4:30**

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>Comparison of Medical Leadership Competencies of Doctors on Induction and on Completion of Postgraduate Training in Pediatrics and Pediatric Surgery</td>
<td>M.Saleem</td>
</tr>
</tbody>
</table>

**BOG Boardroom 2:30-4:30**

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>Reliability of research</td>
<td>Ishaque Khalid</td>
</tr>
</tbody>
</table>

### PAPER SESSION 5

**BOG Side room**

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>Insight Of Third Year Medical Students Regarding Teaching Methodology</td>
<td>Asif Masood Butt</td>
</tr>
<tr>
<td>36</td>
<td>Role of WhatsApp in Linking the Orthopedic and Allied Department for Updates, Engagement and Education</td>
<td>Syed Faraz ul Hasan Shah</td>
</tr>
<tr>
<td>37</td>
<td>Does reflection writing effects the knowledge, attitude and skills of house officers?</td>
<td>Ahmad Liaquat</td>
</tr>
<tr>
<td>38</td>
<td>Preference of teaching methods by the medical students of Saudi Arabia</td>
<td>Sumera Nisar</td>
</tr>
<tr>
<td>39</td>
<td>Evolving Role of Social Networking Sites in Undergraduate Surgical Education: Student Perspective</td>
<td>Talat Waseem</td>
</tr>
<tr>
<td>40</td>
<td>Effectiveness of Flipped classroom with Gamification approach for teaching anatomy to medical students</td>
<td>Kainat Javed</td>
</tr>
<tr>
<td>41</td>
<td>Comparison of Computer Literacy in Students and Faculty of CMH LahWore Medical and Dental College</td>
<td>Anwar ul Haq</td>
</tr>
<tr>
<td>42</td>
<td>Replacement of concepts developed during health professions education</td>
<td>Ambreen Usmani</td>
</tr>
<tr>
<td>PAPER SESSION 6</td>
<td>TUESDAY, 16th OCTOBER 2018</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------------</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>Re-licensure and Recertification of PMDC certificate: Views from Basic Science Faculty at K.E.M.U.</td>
<td>Abish Mehreen</td>
</tr>
<tr>
<td>44</td>
<td>Special education system in Pakistan (review article)</td>
<td>Ume-e-Aiman Chhipa</td>
</tr>
<tr>
<td>45</td>
<td>Status of the Departments of Medical Education in the Medical Colleges of Lahore</td>
<td>Muhammad Zahid Latif</td>
</tr>
<tr>
<td>46</td>
<td>Evaluation of the Impact of MARSI on Assessment Scores among Medical Undergraduates with English as L2: An Interventional Study.</td>
<td>Muhammad Ammar Qasim</td>
</tr>
<tr>
<td>47</td>
<td>Knowledge, skill &amp; attitude among fresh dental graduates about orthodontics.</td>
<td>Shan zohra</td>
</tr>
<tr>
<td>48</td>
<td>Learning to cure with care: awareness of faculty and medical students about students’ roles related to patient safety</td>
<td>Ayesha Ayyub</td>
</tr>
<tr>
<td>49</td>
<td>Patient Safety Awareness Among Postgraduate Students and Nurses in A Tertiary Health Care Facility</td>
<td>Attiya Bari</td>
</tr>
<tr>
<td>50</td>
<td>&quot;Quality is not an act, it is a habit&quot; – Aristotle… survey of human factors and patient safety in operation theaters of a peripheral teaching hospital</td>
<td>Sajid Aziz</td>
</tr>
<tr>
<td>51</td>
<td>Analysis Of Compliance Of Surgical Safety Protocols In Operating Rooms Of Tertiary Care Hospitals Of Lahore</td>
<td>Javeria Usman</td>
</tr>
<tr>
<td>52</td>
<td>Perception of patient safety among Final year MBBS students at King Edward Medical University Lahore.</td>
<td>Nasir Ahmad</td>
</tr>
<tr>
<td>53</td>
<td>Patient safety awareness among Undergraduate Medical Students in Pakistani Medical School</td>
<td>Rizwana Kamran</td>
</tr>
<tr>
<td>Session 7 BOG Board room</td>
<td>Perception of Central Induction Policy among trainees of Punjab</td>
<td>Maliha Nadeem</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------------------------------------------------</td>
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</tr>
<tr>
<td></td>
<td>A Study on Postgraduate Trainees Attitudes towards Research</td>
<td>Remsha Mustafa</td>
</tr>
<tr>
<td></td>
<td>Educational Environment; Perception Of Junior Doctors Using Pheemwww Questionnaire At Social Security Hospital/Ucm, University Of Lahore</td>
<td>Sibtain Raza</td>
</tr>
<tr>
<td></td>
<td>Burnout among Pediatric Residents and Junior Pediatric Consultants Working at a Tertiary Care Hospital</td>
<td>Attia Bari</td>
</tr>
<tr>
<td></td>
<td>Burnout in Postgraduate Dental students of Basic Dental Sciences</td>
<td>Sarah Ghafoor</td>
</tr>
<tr>
<td></td>
<td>Post graduate perception of stress levels, educational environment and their association at Liaquat University Hospital, Hyderabad/Jamshoro</td>
<td>Aatir Rajput</td>
</tr>
<tr>
<td></td>
<td>Perception of Plastic Surgery residents about concept, process and application of reflective practice in their training</td>
<td>M.Mustehsan</td>
</tr>
<tr>
<td></td>
<td>&quot;On Toes&quot;: Designing An Epa Framework On “Teamwork In Obstetric Emergency Situations (Toes)” For Postgraduate Residents-A Modified Delphi Study</td>
<td>Saima</td>
</tr>
<tr>
<td></td>
<td>Burnout in Gynecology Residents---- A Myth or Reality</td>
<td>Syeda Shaista Waheed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Session 8 BOG Side Boardroom 11:00-12:30 pm</th>
<th>Medical students' perception and involvement in academic dishonesty: A cross-sectional study in Lahore, Pakistan</th>
<th>Fatima Aslam</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Doctors’ experiences and awareness of non-technical skills, a way to the development of a behavioral marker system for patient management</td>
<td>Nighat Majeed</td>
</tr>
<tr>
<td></td>
<td>Attitude Of Hospital Faculty Towards Collaborative Practice</td>
<td>M.Tauqeer Ahsan</td>
</tr>
<tr>
<td></td>
<td>Patients’ Attitudes towards Presence of Medical Students during Ultrasonography</td>
<td>Faiza Farooq</td>
</tr>
<tr>
<td></td>
<td>Octopus skill model of a medical professional</td>
<td>Qanita Mahmud</td>
</tr>
<tr>
<td></td>
<td>Emotional Intelligence of Medical Teachers</td>
<td>Zareena Akram</td>
</tr>
<tr>
<td></td>
<td>The insulting behavior of seniors toward their junior’s doctors</td>
<td>Sobia Nawaz</td>
</tr>
<tr>
<td></td>
<td>NEUROLOGY-The Mcdreamy mania or a choice of sane minds</td>
<td>Neha</td>
</tr>
<tr>
<td>No.</td>
<td>Title</td>
<td>Author</td>
</tr>
<tr>
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<td>-------------------------------</td>
</tr>
<tr>
<td>71</td>
<td>The Changing Trends Of Dengue Fever Consecutive Outbreaks In A Tertiary Care Hospital</td>
<td>Nadia Shams</td>
</tr>
<tr>
<td>72</td>
<td>Proportion of Exposure of Passive Smoking in Teenage Group and Symptoms Precipitated After Exposure to Second Hand Smoke</td>
<td>Rabia Khalid</td>
</tr>
<tr>
<td>73</td>
<td>Intention &amp; knowledge of fresh dental graduates of FMH College of dentistry Lahore related to dental practice management</td>
<td>M.Imtiaz</td>
</tr>
<tr>
<td>74</td>
<td>Improving work force in health sector: A survey on motivation of medical graduates and residents on willingness to practice in rural community</td>
<td>Fauzia But</td>
</tr>
<tr>
<td>75</td>
<td>Building the first Primary Immune Deficiency Diseases Institute in Pakistan</td>
<td>Farruk R Shiekh</td>
</tr>
<tr>
<td>76</td>
<td>Perceptions Of The Strabismus Among The Age Of 11-16 Years Old School Children</td>
<td>M.Idris</td>
</tr>
<tr>
<td>77</td>
<td>Effect Of Estrogen Receptor Alpha Genes Variants On Severity Of Breast Cancer</td>
<td>Faisal Gulzar</td>
</tr>
<tr>
<td>78</td>
<td>Level of stress in students of a private medical college in Lahore, Pakistan.</td>
<td>Syed Hussain Raza Zaidi</td>
</tr>
<tr>
<td>79</td>
<td>Gestational Diabetes Mellitus Is Still A Great Problem</td>
<td>Afsheen Qazi</td>
</tr>
<tr>
<td>80</td>
<td>Mutational Spectrum Of Cyp1b1 In Pakistani Families Affected With Primary Congenital Glaucoma</td>
<td>Muhammad umer khan</td>
</tr>
<tr>
<td>81</td>
<td>Patient’s Perception Analysis; A Tool to Enhance Service Quality of Dental Care</td>
<td>Aqsa Javed</td>
</tr>
<tr>
<td>82</td>
<td>Predatory Journals and bogus Publications! Academic scams of the 21st century</td>
<td>Farooq Azam Rathore</td>
</tr>
<tr>
<td>83</td>
<td>Knowledge Assessment regarding Medical Ethics among Final Year Medical Students in Rawalpindi-Islamabad Pakistan</td>
<td>Ume Hani</td>
</tr>
</tbody>
</table>
1. Title: Four-Legged Chair: Dental Student’s Qualitative perception about teaching faculty, Administration and Academic Environment at University college of Dentistry University Of Lahore.

**Introduction:** Education system in a dental institute is a four legged chair: The teaching faculty, the administration, the academic Environment and The students. Students are the end buyers of Dental education so the dental education system should also incorporate the perspective of students with respect to other 3 parameters. The present study was motivated to focus on the qualitative aspects of student’s perspective on the other three main parameters in university college of Dentistry (UCD) University of Lahore (UOL).

**Method:** A qualitative survey with open ended questions was done in final year BDS class of 2018 in UCD UOL. The questionnaire was distributed to all the class, Strength of 75. 55 questionnaires were received back and one of them was completely empty.

**Results:** The data was stratified with respect to larger fields and smaller areas and sub areas identified by the students. The students were able to pint out as many as 5 and as less as 2 areas and sub areas in already given fields. They highlighted various issues which can change the strategy of dental institute and improve overall education system.

2. Title: Non-Operative Technical Skills for Surgeons (NOTSS): Reshaping surgical curricula in developing countries – A systemic review and meta-analysis

**Introduction:** Non-technical surgical skills are the new development in UK as a part of competency based training scheme. This non-technical skills system is constructed on cognitive and interpersonal skills taxonomy to assess four core categories including situation awareness, decision making, communication and teamwork, and leadership in operating theater. We aim to conduct systematic review of non-operative technical skills for surgeons to assess applicability in developing countries.

**Methodology:** The following search databases were used: EMBASE, MEDLINE, Web of Science, Google scholar, Biomed Central, and Cochrane review register. Mesh terms were combined to select studies. Meta-analysis was performed on four skills categories and twelve elements that make up skills taxonomy using Revman 5.2 statistical software.

**Results:** This review attempted to identify all four core categories of non-technical skills from 32 articles including assessment literature, observational studies and questionnaire studies to institute whether there was a valid and reliable taxonomy available for the assessment of surgeons’ non-technical skills in developing countries. Inviolable propinquity was evident between cognitive and interpersonal skills in the research literature but certain non-technical particulars of performance can enhance technical performance of surgeons.

**Conclusion:** Implementation of non-technical skills for surgeon (NOTSS) system is appropriate and can be intended for improving surgical training with a novel strategy for surgical safety in theater environment. NOTSS system is a gadget that pledge to provide a surgical training tool without additional financial burden to improve patient safety and outcomes in developing countries.

3. Title: Problem Based Learning: Experience Of Medical Students

**Introduction:** To evaluate experience of medical students regarding PBL in hybrid integrated curriculum.

**Method:** This descriptive cross sectional study was conducted in May 2018 to June 2018 at two different medical colleges, the University College of Medicine and Dentistry, University of Lahore and Shalimar Medical and Dental College Lahore. The targeted population was 1st year and 2nd year MBBS students. Sample size was 188 students of 1st year and 2nd year MBBS of the University College of Medicine and Dentistry (institute 1) and 110 students of 1st and 2nd year of Shalimar medical and dental college (Institute 2). A pre validated questionnaire was distributed among students who were asked to record their experience regarding PBL using a 5-point’s Likert scale. Data was analyzed by using non-parametric statistics. The total mean score <3 indicating bad experience of students, while >3 indicates good experience of students about PBL.

**Results:** Out of 298 study subjects, all responded. Of the total, 188 participants were of institute 1 and 110 were of institute 2 students. Of them, 205(68.79%) were female. Results showed that students of both institutes found several key benefits of PBL.
acquiring critical thinking, problem solving and communication skills, working and studying in small groups, Small group and PBL as better learning opportunity than lectures but institute 1 mean score <3.0 showed their un satisfaction about their tutor performance in PBL conduction, while P value is statistically significant (0.048) when compared between two institutes regarding tutor practice only.

**Conclusion:** This study reveals that medical students of both institutes consider PBL as valuable and favorable learning methodology and also highlighted the significant role of PBL in hybrid curriculum which helped the students to feel, is there any improvement in their different learning skills, to judge their capability to interact among peers in group, helps in identification of their learning preference as small group discussions and helps to access their tutor performance during PBL conduction. Institute 1 students reported that they are not satisfied with their tutor performance. The investigator strongly recommend that tutor and student training should be mandatory before introducing PBL. PBL session marks should be included in internal assessment and only senior faculty and voluntary participants will conduct PBL sessions.

**4. Title: Perception Of The 2Nd Year Mbbs Students About The Content, Structure And Teaching Of The Head And Neck Module In An Integrated Curriculum**

**Introduction:** Our College has developed and implemented integrated curriculum with an aim to enhance learning by using different teaching methodologies. An integrated, theme based module of head and neck module was developed and implemented. This study was designed to evaluate the perception of students about content, structure and teaching of head and neck module.

**Methodology:** A survey questionnaire was used to evaluate the perception of students about the content, structure and teaching of the module. Survey questionnaire was developed on qualtrics software and distributed via social media (WhatsApp).

**Results:** 88.18% of the students agree that learning outcomes of the module were clearly stated and 69.09% of the students felt that they were achieved fully. 44.54% of the students felt that module's subjects were covered in breadth and depth in the opinion of 44.54% of the students. Majority of the students were of opinion that module was well structured and helped them to build their knowledge. The number of students agreed and disagreed was equal as far as adequacy of duration of the module was concerned. The majority (48.18%) of students agree that module was well organized and 52.73% disagree that workload of the module was manageable. 69.64% students felt that objectives of the module were explained well and 67.86% opinion that they were encouraged to participate in class discussions. Lectures of the module were well planned and presented in the opinion of 65.77% of the students and tutorials were organized in the view of 61.82% of the students. Different teaching methodologies helped the students in achieving course objectives in the opinion of 63.06% and 45.04% felt that the ratio was appropriate between different teaching methodologies. The ideas and concepts were presented clearly in the perception of 61.61% of the students.

**Conclusion:** Majority of the students graded the content, structure and teaching of the module as good. But some of the areas are highlighted which need improvement for example: students felt that module was not well organized and its workload was not manageable.

**5. Title: Assessment Is A Good Motivator To Acquire Knowledge And Skills In Dentistry**

**Introduction:** The current methodology of dental teaching in Pakistan follows the traditional methods. The University of Lahore (UOL) is currently implementing the integrated system into its curriculum. This study aims to compare the development of clinical skills and knowledge of 3rd year dental undergraduate students studying the integrated system and traditional teaching methodology.

**Methodology:** Freshly promoted 3rd year BDS students on integrated system and freshly promoted final year BDS students on traditionally taught curriculum were selected each comprising of 70 students of University College of Dentistry, UOL. A questionnaire was formulated based on skills identified from the PMDC approved curriculum for the students. The questionnaire included 11 questions containing information regarding various clinical skills to self-evaluate the psychomotor skills based on psychomotor domain taxonomies by Simpson (1972), Dave (1970) and Harrow (1972). Descriptive statistics were calculated using Microsoft excel 2013.

**Results:** Out of 140 students 108 students responded back. Dental procedures that the students were the most confident were;
in history taking (72% 3rd year and 83% 4th year), classification of caries (83% 3rd year and 73% 4th year) and Kennedy’s classification (88% 3rd year and 69% 4th year). Students were least confident in the management of medical emergencies (1.6% 3rd year and 21% 4th year).

**Conclusion:** There was a clear cut demarcation of enhanced skill level of students taught by modular integrated system, however some of the skills in patient management, the students following traditional teaching methods showed better skills because of their longer experience to patient handling.

6. **Title:** Effect Of Paired Formative Assessment On Students’ Learning

**Introduction:** Formative assessment is a potentially transformative instructional tool that aims to support learning and effectively engages teachers and students during instruction in continuous and systematic approach for the improvement of students. There is a strong and rigorous evidence that effective use of formative assessment can raise the pupil’s performance. The emergent interest of institutions to make students autonomous and lifelong learner has stimulated them to re-consider the association between learning and its assessment. Despite the effectiveness of formative assessment there is a gap between theory and practical implications of formative assessment. Emerging problem is that formative assessment is being reduced to regular class assessments.

**Methodology:** It was a quantitative, true experimental study. The accessible population for the study were two hundred students who attended ENT module in Islamic International Medical College.

Student achievement in two multiple choice question papers were used to study the effect of the paired formative assessment in the experimental group, in comparison to the individual formative assessment in a control group. Marks obtained in Pre-test and Post-test were the basis of measuring the performance of students. Both groups were compared using Independent sample t-test.

**Results:** Out of 160 participants, 94 (58.7%) were female and 66 (41.3%) were male. 80 students (50%) were selected from the 3rd year and 80 students (50%) from 4th year. 80 (50%) were allocated to experimental group and 80 (50%) were allocated to control group. In pre-test, both groups’ i.e. experimental and control group solved paper individually. In individual phase, the pre-test results showed mean 8.26, median 8.50 and mode 9 for experimental group and mean 7.76, median 8 and mode 9 for control group.

Post-test paper 2 descriptive analysis results showed mean of 14.43, median 15, mode 15 and variance 7.84 or experimental group. Testing hypothesis for paired formative assessment, I used unpaired two tailed t test and found 95% confidence interval. P-value was 0.061 for post-test (paper 1) marks and 0.092 for post-test (paper 2) marks, which is greater than α=0.05 (statistically significant).

**Conclusion:** This study evaluated the effectiveness of paired formative assessment in improving students’ academic performance. Both the individual and paired formative assessment showed net positive learning improvements but the students in pairs achieved a relatively greater gains in their scores and the difference was significant statistically.

7. **Title:** Cultural Competency in Health Care: Evaluation of Cognition and training of Cultural Competency among Physicians in Public Sector Health Facilities

**Introduction:** Culture is defined as learned beliefs and behaviors which are shared by group of peoples. It includes values, customs, role, relationship, thoughts, language and ways of communicating practiced and shared among themselves. Competency is the ability to do a job efficiently within the context of the cultural beliefs, behaviors, and needs of clients. Cultural competency in health care implies that health care providers have ability and availability to understand and work effectively with the patients belonging to different cultural background than one’s own. Understanding the beliefs and values of different culture are as important as biomedical approach to treatment, failing which may result in misdiagnosis or noncompliance with the treatment.

**Methodology:** A qualitative constructivism phenomenology study was carried out. The semi structured open ended cultural competency questionnaire and semi structured interview was designed on the basis of guidelines by Oregon medical board (Oregon Medical Board; June, 2017) and National Health and Medical Research Council, Australia (2005) encompassing all
constructs of cultural competence.

This study was carried out in diverse cultural settings and all three levels of health care system were approached. Primary level consisted of Rural Health Centre at Kala Shah Kaku that is 30 bedded health care center and more than 100,000 registered population. Secondary health care level included DHQ Hospital Sheikhupura.

**Results:** The cultural competencies among physicians were evaluated either satisfactory or unsatisfactory on the basis of the interviews and self-reported evaluation by physicians. The evaluation of understanding of cultural competency among physicians had shown the satisfactory results. Understanding was further divided into importance of cultural competencies to handle situations during medical practice and concepts of cultural competencies on semi structured interview based questionnaire.

Conclusion: Physicians are trained in medical colleges to deliver best medical care according to scientific standards but their training in cultural competencies, soft sciences and art of healing is not being evaluated at health facilities and practical settings. Thus there is dire need to conduct research studies to explore the phenomenon and to realize the deficiencies in training regarding cultural competencies.

8. **Title:** Evaluation of Mentoring Skills by Mentees using the Mentoring Competency Assessment (MCA) Instrument at an Undergraduate Medical School in Lahore

**Introduction:** Mentoring, a committed relationship has established its significance in the field of undergraduate medical education. Mentors invest in their protégés' personal and professional development, beyond the realm of teaching. The mentors and the organization also gain a multitude of benefits. Formal mentoring is considered to have more advantages. Recruiting mentors should be thoughtful and mentors should be trained for their job. The assessment of mentor's competence remains a challenge and many instruments have been tried for this purpose. Evaluation can help identify areas for training. The Mentoring Competence Assessment inventory developed by Fleming et al. focused on measuring six main competencies of a mentor-mentee relationship. Since these competencies overlap with the objectives of more general mentoring programs, this tool can be adapted to measure outcomes.

**Methodology:** A cross sectional study was conducted at The University of Lahore. The Mentoring Competence Assessment instrument was used with appropriate modification. Volunteers filled in an online questionnaire. 129 students responded, out of which 97 completed responses were considered. Response scores were added to calculate score for each competency. Correlational analysis was performed for competence and seniority. Cross gender mentoring was also compared to same gender mentoring.

**Results:** The high scoring competencies in the order of ratings they attained are: maintaining effective communication, fostering independence, promoting professional development and aligning expectations, whereas assessing understanding and addressing diversity were rated at less than fifty percent, indicating areas for faculty development training. Almost 80% students rated high on how much they had benefited from their mentor. They also felt their mentor helped them the most by motivating them, by being a good listener and by guiding them. Mentees believed their mentoring relationship was uncomfortable due to group mentoring, seniority bias, and lack of time. The mentor’s gender had no significant effect on all the six competencies.

**Conclusion:** Mentoring is a mutually beneficial relationship and is most beneficial when started at an early stage. The mentoring program should be relevant to local perspectives and cultural issues. To prevent misunderstandings, mentors should acknowledge the differences of gender & cultural background. Mentors should be monetarily rewarded for their contribution to medical education. Educating & empowering students, along with faculty education regarding students’ needs may improve mentoring.

9. **Title:** Quality Of Mcq’s Developed By The Faculty Of Public Sector Medical College

**Introduction:** Assessment is one of the vital components of teaching and learning cycle. In the subject of medical education, many assessment tools are used but among these tools, Multiple Choice Question (MCQ) is an entrenched, trustworthy method of assessing knowledge. MCQs are developed by the faculty of Sheikh Zaid Medical College for MBBS examinations and are the mandatory requirement by College of Physicians and Surgeons of Pakistan (CPSP) to become supervisor. The quality of multiple choice questions developed by the faculty of Sheikh Zaid Medical College is not up-to the mark that is why I planned this study
to identify commonly occurring flaws and suggest measures for quality improvement.

Methodology: This quantitative study was conducted in Sheikh Zaid Medical College Rahim Yar Khan over six month period after the approval of the study proposal. Every faculty member is supposed to write 25 MCQs in order to become supervisor. I collected 500 multiple choice questions from 25 faculty members ready for submission to CPSP. The quality of all MCQs was checked in terms of item writing flaws and cognition level.

Results: Absolute terms were observed in 10(2%), vague terms in 15(3%), implausible distracters in 75(15%), extra detail in correct option 15(3%), unfocused stem 63(12.6%), grammatical clues 39(7.8%), logical clues 18(3.6%), word repeats 19(3.8%), >then one correct answer 21(4.2%), unnecessary information in stem 37(7.4%), lost sequence in data 15(3%), all of above16(3.2%), none of above12(2.4%) and negative stem 23(4.6%). Cognition level I (recall) was observed in 363(72.6%), level II (interpretation) in 115(23%) and level III (problem solving) in 22(4.4%) items. Total 378(75.6%) flaws were identified and four commonest flaws were implausible distracter 75(15%), unfocused stem 63(12.6%), grammatical clues 39(7.8%) and unnecessary information in stem 37(7.4%).

Conclusion: Faculty Development Program (FDP) should be planned in order to improve the quality of items. Our main objective is to decrease the number of item writing flaws and improve cognition level towards problem solving and application of knowledge.

Key Words: Items, items writing flaws, cognition level, faculty development program.

10. Title: Perception of Medical students regarding educational environment in Sheikh Zayed Medical College Rahim Yar Khan; A cross-sectional survey using the Dundee Ready Education Environment Measure (DREEM) questionnaire

Introduction: The learning environment is the physical surrounding in which learning takes place. Positive learning environment is mandatory for more and more learning in every aspect of life. The learning environment at Sheikh Zayed Medical College (SZMC), Rahim Yar Khan has not been previously studied. The main objective of this study was to measure the learning environment of medical students in pre-clinical years. So, this study was carried out using the Dundee Ready Education Environment Measure (DREEM) to obtain student perceptions about the learning environment of a newly established medical college in remote area of south Punjab.

Methodology: The DREEM questionnaire was administered to undergraduate medical students in first and second year class (basic sciences) during the first two weeks of June 2015. The students' perceptions were evaluated by noting their degree of agreement with a set of 50 statements using a Likert-type scale. The mean overall score and the scores of subcategory were calculated and compared among different respondents.

Results: Two eighty six of the 300 students (95.33%) completed the questionnaire. The overall mean score was 113.68 (maximum score 200). The mean+SD score for students' perception of learning was 26.65±10.235 (maximum score, 48), while the score for students' perceptions of teachers was 26.63±10.177 (maximum score, 44). The mean+SD scores for students' academic self-perception, students' perception of the atmosphere, and students' social self-perception were 17.17±6.73 (maximum score, 32), 26.89±10.89 (maximum score, 48), and 16.34±6.70 (maximum score, 28), respectively.

Conclusion: The perception of student's educational environment was positive amongst all domains of DREEM inventory. This indicates an adequate level of satisfaction in most areas of the existing environment. This means that educational environment will enhance learning but still certain areas need improvement. Regular student feedback is needed after addressing the deficient points. Continuous evaluation of learning environment should be emphasized.

11. Title: A Realist Review: Impact Of Interactive Lecturing Workshop As An Act Of Faculty Development Program On Lecturing Skills Of Faculty Members

Introduction: Background: Health care providers and medical teacher been provided by the teaching methodologies to improve their teaching effectiveness. Many studies reflect interventions on faculty development program. Interactive lecturing workshop as a part of faculty development program also been evaluated.
Objective: The main objective of this paper is synthesis of evidence of review question ‘What is the impact of interactive lecturing workshop as an act of FDP on improving lecturing skills of the teachers?’

Methodology: Methods: We search for the articles from four main databases i.e. ERIC, PubMed, Google scholar and PsycINFO. Key word we used for this purpose is Faculty Development Program, Interactive Lecturing, and Impact of interactive lecturing workshops. This article focuses on the improvement of faculty lecturing skills. By applying inclusion and exclusion criteria seven articles have been selected for the review purpose.

Results: Results: Most of the studies shows that any intervention regarding interactive lecturing workshop has positive impact on faculty members’ lecturing skills.

Conclusion: Conclusion: Interactive lecturing workshops met the demand of faculty development process. This activity highly appreciated by the participants and these workshops has positive effect on faculty members as well as student enjoy more in the environment of interactive lecturing. But its effectiveness on organizational level need to be evaluated.

12. Title: Impact Of Ipe Workshop On The Team Performance Of Health Professionals Working In Cardiac Catheterization Laboratory

Introduction: With the modernization and advances in the medical sciences many subspecialties have emerged for the treatment of a single illness. This result in the fragmentation of care and thus many professionals from different specialties are involved simultaneously for the treatment of a patient. This becomes particularly important for the patients who need complex care from multiple disciplines. (“Impact of Interprofessional Education on Collaboration Attitudes, Skills, and Behavior among Primary Care,” 2012). Involvement of multiple disciplines working at a same time for one patient has evolved the concept of Interprofessional practice. It is the synergistic model of patient care that enabled professionals from different specialties to work together to provide safe and well-coordinated care. Moreover it has helped in reducing errors and increasing learning of the professionals in a very relax and encouraging environment

Methodology: We evaluated an IPE workshop by means of quantitative design, consisting of before and after questionnaire. Permission was taken from the ethical committee of CPE institute of cardiology Multan. Verbal consent was taken from all the participants. Evaluation of the workshop was carried out by two sets of questionnaire. These were administered before and one week after the workshop. Questionnaire included two scales for assessing changes in team skills and collaboration among team members (Team Skill Scale and Interprofessional collaboration scale all the data was entered and analyzed through SPSS version 21. We analyzed the baseline characteristics of the participants by using descriptive statistics. Dependent t test was used to compare the means of Team Skill scale and Interprofessional Scale before and after the workshop

Results: There was a significant difference in the pre and post workshop team skill score (mean difference=-26.6000; SD=8.66572, p=0.000) (TABLE 1).The score of Interprofessional collaboration was also higher in the post workshop questionnaire however it was not significantly changed (mean difference=-3.3500; SD=5.80630, p=0.009)

Conclusion: IPE workshop has resulted in higher scores on team skill scale and Interprofessional collaboration scale of health professionals working in cath lab.

13. Title: "Challenges of faculty development in private medical colleges"

Introduction: Faculty development is the basic pillar in success of building and dynamic functioning of a medical college aiming to produce pre-eminent medical graduates and to provide most advanced and state-of-the- art health care facilities. It is designed to equip and educate medical teachers about their roles and responsibilities. The challenges faced by the private medical colleges are lack of awareness about the subject, meagerness of human and financial resources. There is also resistance to change and aversion to acceptance of the innovations and strategies that must be used in teaching of medical graduates.

Objectives: The aim of our research project was to explore the challenges faced by the private medical colleges in their faculty development programs.

Methodology: Methods: We included in our study the medical educationists who are responsible for or concerned with the
faculty development programs in private sector. Telephonic interviews were organized and recorded for an average of 15 to 20 minutes. Thematic analysis was done on the transcript of the interviews.

Results: Results: From these interviews seven main themes were identified. Most of the respondents put emphasis on lack of human and financial resources, resistance from senior faculty members and top management, working methodology, lack of encouragement, appreciation and incentives, majority of faculty members lack in foreign exposure and experience.

Conclusion: Conclusion: Faculty and administration of the private medical colleges require to understand the importance of faculty development and the role of independent and fully equipped department of medical education. Owners of the private medical colleges should be encouraged towards investing in this specialty as this will further improve the quality and standard of their institution. Also the regulatory bodies should play their role in implementing and conducting faculty development programs.

14. Title: Medical Students’ Perceptions of the Educational Environment in the Surgical Theater

Introduction: Educational environment is an interactive network of forces playing an important role in producing positive outcomes of the curriculum related to teaching, learning and students’ achievement.

Surgical theater is a challenging place where medical students feel pressurized and stressed, because of the serious implications on patient safety. Perceptions of medical students identify strengths and weaknesses of the educational environment in surgical theater and indicate the key variables that make an ideal learning environment for them.

Methodology: This was a teaching hospital-based cross-sectional study. The Mini-Surgical Theater Educational Environment Measure (mini-STEEM) (thirteen items from the STEEM inventory) was used to measure perceptions of medical students on the learning environment in surgical theater. Mini-STEEM was administered to medical students of fourth and final year during their rotation in surgical theater at Fatima Memorial Hospital College of Medicine and Dentistry. All 134 students filled the questionnaire with a response rate of 100%. Social Sciences (SPSS) Version 20 was used for non-parametric statistical analysis.

Results: Questionnaire was filled by all 134 students, with a response rate of 81% the mini-STEEM was shown to be a reliable tool to measure overall learning environment in the surgical theater of Fatima Memorial Hospital College of Medicine and Dentistry. The overall mini-STEEM mean score was 37.66 which was below the midpoint score (39). Students’ ratings were low for two subscales, namely: ‘Atmosphere’ and ‘Operating experience. Discrimination subscale showed high ratings as there were no significant differences of perceptions were found between male and female participants.

Conclusion: The medical undergraduates perceived the educational environment within the surgical theater of Fatima Memorial Hospital College of Medicine and Dentistry below satisfactory. Results of the study implied that the environment required multiple measures for improvement in the surgical theater to promote surgical education in undergraduate medical students.

15. Title: Disruptive Behavior in Classroom – Medical Students’ Perception

Introduction: For the conducive learning environment learners and teachers are expected to behave optimally. Reports of disturbing behaviors of professional students in the classroom have had a profound impact on other students, faculty members, and the environment for teaching and learning. Review of the health profession's literature on the topic revealed lot of studies about nursing and pharmacy schools but scarce from medical schools. This study is an attempt to find out the perception of medical students regarding themselves and teacher’s disruptive behaviors in class room leading to non-conductive learning environment. Student's viewpoint about the issue may help the educators to successfully develop means of reducing the prevalence of such incivilities.

Methodology: A descriptive cross-sectional study was conducted at Azra Naheed Medical College, Lahore on the final year medical students during the month of May 2018. A questionnaire was used for data collection. A questionnaire comprising of two sections was used to collect data. The first section had questions regarding student’s disruptive behaviors and that was taken from Rowland and Srisukho research and was used by authors’ permission. The second section regarding teacher's incivility was self-prepared.
Results: A remarkable difference was noted in students’ perception regarding their own and faculty’s disruptive behavior. Female students were more sensitive regarding gravity of disruptive behavior. Regarding their own, students agreed with 35% items while about faculty they labeled 90% items as disruptive behavior. Sleeping in class (48%), demanding special treatment from the faculty and not putting cell phone on silent mode (44%) were labeled commoner disruptive behavior of the students. Humiliating behavior (87%), unintelligible voice and unavailability of teachers outside the class (81%) were taken by students as commoner disruptive behavior of the faculty.

Conclusion: About half of the student disagreed most of the potentially disruptive behavior attributes regarding themselves. On the other hand they have severe criticism on their teachers’ disruptive behavior. They may have high expectations and want to see their faculty as role model. Moreover they may be a bit unfair in giving their opinion. For healthy learning environment both students as well as teachers should realize and modify their behavior to meliorate the critical problem of disruptive behavior in the academic environment. Keeping in view the students’ expectations, educators should try to modify their objectionable attributes accordingly at their best. At the same time faculty should also try to aware the students that some behaviors are necessary for discipline which are useful.

16. Title: Correlation between Strength of Motivation and Academic Performance among the Dental Students of University College of Medicine and Dentistry, Lahore.

Introduction: Motivation is one of the key factors in a good academic performance. Motivation is especially important in Dentistry due to the high intensity of study, along with the requirement of carrying out clinical duties. Studies have been carried out to explore the relation between quality and quantity of motivation and academic performance, with contradictory results.

Methodology: Cross-sectional correlation research methodology was applied. The SMMS-R questionnaire was used to determine the strength of motivation and it was distributed electronically to the 1st, 2nd, 3rd and final year dental students of UCMD. A total of 144 responses were received, out of which 4 students did not give the permission to obtain their academic results, thus they were excluded from the study. The academic results for these 140 students were obtained from the administration department. Results for Complete Block Assessment 1 (CBA-1) were included in the study. Data was analyzed using SPSS25 program by means of Pearson Correlation Coefficient.

Results: Strength of motivation and academic performance revealed a positive linear relationship; Pearson's Correlation Coefficient (r) = .602 and p-value 0.01. As strength of motivation increased, academic performance increased.

Conclusion: In conclusion, a positive relationship was found between the student's strength of motivation, as calculated by the SMMS-R questionnaire and their academic performance.

17. Title: Students Perception about Problem based learning Problems and Quality of Problem based learning

Introduction: Problem based learning is method based on the principles of using problem as a starting point of acquisition and integration of new knowledge. PBL is instructional method which stimulates students by activating relevant prior knowledge, provide learning setting in which knowledge is to be applied in future and provide learners with an opportunity to elaborate their own knowledge. This study was conducted to see the quality of problems provided during problem based learning sessions and strength and weakness of problem based learning methodology.

Methodology: This study was conducted among dental students during academic year 2017-2018. A cross sectional study was conducted after having informed consent from the students. Survey was carried out among the students of 1st, 2nd and 3rd year of UCD (UOL), by distributing validated questionnaires among 170 students out of which 141 solved questionnaires were received back. Data obtained were analyzed using SPSS version 23.

Results: A total of 141 students participated in this study. The questionnaire used gives an impression on the strong and weak aspects of PBL and PBL problems. The strongest aspect identified by students is that problems provided in PBL, leads to Studying the Intended Contents. The weakest aspect is that the problems do not Enhance Interest in Subject Matter. At a more specific level the instrument can be used to identify strong and weak problems and give suggestions for improvement.
Conclusion: It can be concluded that the instrument that has been used to evaluate the quality of PBL and PBL problems provides useful information about strong and weak aspects of PBL and PBL problems.

18. Title: The Impact Of Regular Breakfast Intake On Cognitive Performance And Emotional Status Of Adolescent Saudi ARABIAN MEDICAL STUDENTS

Introduction: Breakfast consumption, being the first meal of the day can be useful for better health outcomes and educational performance. Enhancement of academic capabilities of students is an essential factor that has a significant effect on their future life.

A cross-sectional survey was designed to find out the effects of regular or irregular breakfast eating habits on cognitive performance and emotional status of adolescent Saudi Arabian medical students.

Methodology: In this cross-sectional study, ninety female medical students of Princess Nourah bint Abdulrahman Women University, Riyadh were recruited with an average age of 18-19 years. The students were divided into two groups A and B. The group A included 60 students who took breakfast on the day of study; whereas group B comprised of 30 students who did not take breakfast on study day. Students were tested using Test Performance Assessment Quiz to test their cognitive ability. A proforma based on positive or negative emotions of student was filled by each student. The response rate of students was 98%.

Results: The mean BMI of group A was lower as compared to group B, but was statistically insignificant. Academic performance and positive emotions of students taking breakfast were significantly higher (P<0.001) compared to students skipping breakfast. Moreover, negative emotions in subjects taking breakfast were significantly less (P<0.001) than student taking breakfast infrequently or skipping it.

Conclusion: The academic performance as well as subjective wellbeing of adolescents may be enhanced and improved by early recognition and correction of their meal habits. There is a need to encourage adolescents to take breakfast on regular basis during the period of rapid development of brain and body to avoid health issues in future.


Introduction: Medical education is considered challenging as medical students have to confront diverse varieties of stress during all study years that affects their physical and psychological health and hinder coping abilities. The present study was aimed to examine stress and coping strategies of medical students studying in a private medical college. It was hypothesized that there is likely to be a relationship among stress and coping strategies and differences may exists in stress regarding gender and year of study.

Methodology: A sample of medical students N=150 was selected randomly from Akhtar Saeed Medical & Dental College Lahore. Age range of participants was 18 to 26 years (M=21). The Medical Students Stressor Questionnaire MSSQ-40 (Yusoff, Rahim, 2010) was used to assess Stress of medical students and The Brief Coping Orientation to Problems Experienced COPE-28 (Montel, Albertini, Desnuelle, Spitz, 2012) was used to assess Coping skills used by medical students. Pearson product moment correlation analysis was carried out to identify relationships among stress and coping strategy and demographics of medical students. T-Test and Anova was performed to explore the differences of study variables and demographics.

Results: The findings showed a positive relationship between stress and coping. Results revealed gender differences regarding stress and coping. A high stress level was found in female students as compared to male students. Academic stressor was found to be the most influencing factor whereas Avoidance coping is mostly used by medical students in Akhtar Saeed Medical and Dental College. ANOVA was performed to explore study year differences, a higher stress rate was observed in 2nd year medical students among all study years.

Conclusion: It was concluded from the results that stress has a positive relationship with coping and significant differences were found regarding socio-demographics (gender, year of study).
20. Title: To Explore The Effect Of Pre-Exam Stress Levels Of Final Year Medical Students On Their Academic Performance.

Introduction: Stress is defined as the body's nonspecific response or reaction to demands made on it, or to distressing events in the environment. Stress is not just a stimulus or a response but it is a process, to cope with environmental threats and challenges. Personal and environmental events that cause stress are called stressors. In short, Stress is emotional disturbance or change caused by stressors. Stress is a procedure rather than a stimulus or a response by which we recognize and cope with surrounding pressures and challenges. The aim of the study was to determine the stress levels among final year medical students and its effect on their academic performance.

Methodology: Medical Student Stressors Questionnaire (MSSQ) was used for this study. All male and female students of final year MBBS class of Independent Medical College were included in the study. Collected data analyzed by using SPSS version 18. Mean stress values and chi-square tests were used to compare the levels of stress and its effect on their academic performance.

Results: Study results indicate that students who pass were taking moderate to high degree of stress as compared to students who fail in examination were in mild to moderate degree of stress. In short, high achievers were more stressed as compared to low achievers. High achievers were more stressed with ARS (Academic Related Stressor) and TLRS (Teaching and Learning Related Stressor). Low achievers were more stressed with GARS (Group Activities Related Stressor) and SRS (Social Related Stressor).

Conclusion: The study concludes that stress can be used as a positive factor to improve medical students' academic performance. The most important thing is that not only some stress is necessary for good performance but also students should learn how to manage well their stress levels to improve their academic performance. This study gives guidelines to other medical colleges for developing coping strategies; so that stress can be used as a positive factor to improve students' academic performance.

21. Title: Problems Faced By Students Enrolled In Blended Programs Of Masters In Health Professions Education.

Introduction: Blended learning is on rise with widespread use of internet and availability of information and communication technologies. This study aimed to explore the problems faced by students enrolled in masters programs of health professions education taking Garrison's Extended Community of Inquiry as a theoretical framework.

Methodology: This was a qualitative, exploratory study with eighteen students and four facilitators. Participants were purposefully selected from three universities with blended MHPE programs: University of Lahore, Riphah International University, Islamabad and Khyber Medical University, Peshawar. After ethical approval and Informed consent, individual interviews were conducted. Data collected. Was transcribed and analyzed through Atlas ti software.

Results: Deductive thematic analysis led to identification of thirty-two axial codes for faculty and fifty-six for students, under five themes as defined by study's conceptual framework. Blended program of MME pose myriad of problems to the students. (1) Learner's presence related problems included lack of self-regulation and intrinsic motivation to engage one in the program. (2) Teaching Presence related problems revolved around issues regarding timely and appropriate feedback, and teaching methodologies. (3) Issues with Social Presence encompassed difficulties in interactions with facilitators, managing group dynamics and ICT difficulties. (4) Cognitive presence related problems included (5) Institutional issues regarding inadequate resource provision, unsatisfactory administrative support and financial issues.

Conclusion: Blended MHPE programs present a myriad of problems to the students enrolled in them in different components of the program. Answering to these issues can improve quality of these blended MME programs in Pakistan.

22. Title: Level of Exam Anxiety in students of a Private Sector Medical College Pakistan

Introduction: Exam anxiety is a combination of reactions that admits depression, excessive worry, irrelevant thinking, and tenseness from an individual's experience of evaluation/test and result. Exam anxiety is experienced by many students when
they undergo the process of examination. (2) Four main areas of stresses contributing exam anxiety are lack of desired material, life issues, studying style and psychosomatic aspects.

As anxiety level could be different in private medical college students as compared to public medical colleges due to factors such as extra economic burden and relatively weak academic record compared to students from public sector medical colleges. A differentiation along with other mental faculties, competence and cognitive capabilities also renders the top students to tackle anxiety differently.

**Methodology:** A descriptive survey was carried out in Central Park Medical College, Lahore. All students' studying in college were enrolled, both gender recruited and developed questionnaire was used. The data was analyzed by SPSS 20.00, Independent t-test and chi-square test was applied.

The average anxiety level on Visual Analogue Scale (VAS) was evaluated as 62.21 ± 23.01. Total no of student was 300. Female participants were 165 (55%), students showed mild 34 (11.33%), 141 (47%) moderate and 41.67% with maximum anxiety level with the mean of anxiety score 62.18±SD 22.95.

**Results:** Demographic and baseline information about the students include their age, gender and professional year of study. Majority 199 (66%) of them were between the ages of 21-25 years. More than half participants were females 165 (55%). Moderate level of anxiety was presented by 141 (47%) students.

**Conclusion:** Anxiety is common in medical students. Exam anxiety is regarded as a major problem in medical students as it affects the psychological well-being. It is proved by World Health Organization (WHO) that quality of life is affected with exams anxiety, whereas some aspect to the health of students is also affected through exam anxiety. This study indicates moderate level of exam anxiety in private sector medical college, whereas majority of students feel extensive course load which decreases with the increase in academic year as students gained experience from their exam performance.

**23. Title: Students’ Perceptions about Increased Failures in the Subject of Anatomy at a Private Medical College in Lahore, Pakistan**

**Introduction:** The undergraduate curriculum consists of two phases: basic and clinical sciences. Entry in to a medical college is an extremely critical period for the students, during which they are to get familiarized to an entirely a new type of curriculum and learning atmosphere. This transition from higher secondary school to a medical college is quite difficult and stressful, hence some of them become frustrated and depressed leading to low performance and failure in exams.

**Methodology:** Study Setting: This study was carried out at University College of Medicine and Dentistry, a constituent college of the University Of Lahore, located in provincial capital of Punjab, Lahore, Pakistan. Study Design: a Quantitative, Cross-sectional survey based on a validated questionnaire.

Methods: All the newly promoted 2nd and 3rd year MBBS students (n=319) were included in this study. A validated questionnaire was developed, pilot tested and administered to the students for evaluation of their perceptions. Overall response rate was 91.85%. Non parametric Chi square, Mann Whitney U, and student “t” test were used to analyze the results from individual subject; Kruskal-Willis H and ANOVA tests were used to compare the results from the three subjects and Tukey Post hoc test was applied to calculate the significance of difference wherever needed.

**Results:** The total number of 2nd year students were 159 with respondents 148 (50.5%) having males 60 (40.54%) and females 88 (59.46%); and the total number of 3rd year students was 160 with respondents 145 (49.5%) having males 64 (44.14%) and females 81 (55.86%). Out of maximum 100, overall score for the subject of anatomy was 58.80 which is better than negative; one of the subscale “Students’ Perception about the Subject” showed highly significant low score as compared to other two subjects. Overall scores for the subjects of biochemistry and physiology were 69.04 and 67.62 respectively; both indicating more positive perceptions. There was no statistically significant difference between scores obtained by males and females.

**Conclusion:** The results of the study prove the hypothesis that ‘The subject of anatomy is difficult compared with physiology and biochemistry’. The results of the study do not show any difference about the perceptions of male and female students in this regards. Teaching learning process in the subject of anatomy could be made more meaningful and student friendly by including
the ‘core knowledge’ only, increased focus on providing understanding of the subject matter and contextualized instructional strategies that could enhance students’ motivation and retention of knowledge leading to better performance.

24. Title: Should Counselling Be Mandatory For Undergraduate Dental Students?

Introduction: Mental health is the most important pillar for Dentist and his practice. Counselling and peer support is one of the key factors for dental students to have a healthy and successful academic life. The goal of this study was to evaluate the need of psychological and psychosocial support among students throughout their undergraduate life in a dental school for better performance and its significance in their clinical efficacy.

Methodology: Methodology: A total sample of 300 dental students participated from various Dental institutes and a cross sectional study was done to evaluate their needs for psychological counselling. A questionnaire was made comprising of 15 questions regarding various aspects and perceptions of counselling to evaluate its need and outcomes.

Results: The data showed 62.2% of undergraduate dental students reported a need for counselling sessions and 84.4% believes that mentoring has high impact on Dentist's professional development. 71.2% students reported that they will attend counseling sessions, if confidentiality is provided and 80.1% believe these sessions will be productive.

Conclusion: A significantly higher rate of psychological support is required by final year students. Confidentiality is the single most important factor of concern in counselling sessions. In order to produce better academic results and successful professionals, counseling and mentoring should be mandatory for undergraduate Dental students.

25. Title: Knowledge, Attitude and Practices regarding Obesity among Medical Students in Faisalabad, Pakistan

Introduction: Obesity is characterized by excessive fat deposition in the body. It is a worldwide epidemic, associated with large number of debilitating disorders such as type 2 diabetes, high blood pressure, cardiovascular diseases etc. A recent study demonstrates that a quarter of the population of Pakistan would be classified as overweight or obese with the use of Indo-Asian-specific BMI cutoff values. Public health experts and doctors play an important role in educating patients about the hazards of obesity, providing advice and support to maintain their body weight within normal ranges.

Methodology: An observational descriptive study was carried out to assess the knowledge, attitude and practices of medical students in Faisalabad. The study was conducted in May 2017 over a period of 4 weeks. After taking consent and explaining the purpose of study, a pre-validated questionnaire was distributed among first and second year MBBS students of a public sector medical college. Data was analyzed using SPSS 21.

Results: Most participants responded well to questions regarding causes and ill effects of obesity and two thirds correctly identified the normal BMI range. Attitude of students was also positive as most of them understood the importance of maintaining weight. However, 20% still believed that obesity is inherited and can't be reduced. Furthermore, the response in practice section was not up to the mark as most students mentioned poor eating habits and lack of physical activity in their daily routine.

Conclusion: The knowledge and attitudes of medical students regarding obesity is satisfactory but this knowledge has to be put into practice. The causes of lack of physical activity and unhealthy eating practices should be evaluated and addressed by public health authorities.

26. Title: Knowledge and Attitude of Undergraduate Medical Students Regarding Research Work

Introduction: Health research is an important part of medical education and medical profession as well. Study in hand is conducted to assess the knowledge and attitude of medical undergraduate students regarding this research work and to identify the reasons for gaps in the knowledge and attitude.

Methodology: It was a cross sectional study conducted among medical students of various medical institutes of the country. Through purposive sampling a pretested, structured and validated questionnaire was administered to 151 medical students. Knowledge and attitude were recorded on a scale graduated in percentages.
Results: Mean percentage score (SD) on knowledge scale was 31.9% (18.4) and 51% (23.9) on attitude scale. Reasons for students’ gap in knowledge and lack of interest in research were also analyzed. The most common reasons highlighted by the students were faculty forced research (reported by 78.1% students), curriculum overload (reported by 83% students) and lack of motives and incentives (reported by 78.8% students).

Conclusion: Medical students demonstrated moderate level of knowledge and a good level of attitude towards medical research work. Curriculum overload, faculty forced research and lack of motives and incentives are identified as prime reasons for the deficiencies in this regard.

Medical students demonstrated moderate level of knowledge and a good level of attitude towards medical research work. Curriculum overload, faculty forced research and lack of motives and incentives are identified as prime reasons for the deficiencies in this regard.

27. Title: Academic Satisfaction Of Students In Undergraduate Nursing Program: Study From Public And Private Institutes Of Islamabad

Introduction: “Your most unhappy customers are your greatest source of learning.” The academic realities pose new challenges and impact the academic and professional growth of student. Academic satisfaction is directly linked with quality of learning from persons and processes of institute. Which include, evaluation system, contact with teachers and colleagues, curriculum, management and campus itself. A successful institute continuously seeks opportunities for academic improvement and meets expectations of their stakeholders. Institutes continuously change to remain competitive in educational market. Unmet needs and expectations might lead to dissatisfaction. These students experience difficulty interacting and developing relationships. The most basic assumption of student satisfaction is that it is directly linked with student performance and growth.

Methodology: The multisite cross-sectional survey was conducted from February to May 2018. Approval from IRB was obtained. It included undergraduate nursing students from one public and three private institutes of Islamabad. A structured, validated “undergraduate nursing student academic satisfaction scale (UNSASS) was used with permission for data collection. It was pretested before administration. Students recorded their responses on five-point agreement Likert scale. Data was analyzed with descriptive and Mann-Whitney statistical tests.

Results: Out of 220 students, 198 responded, 186 were included after questionnaires validation. Among these 143 were female. Gender group showed significant difference between public private institutes (P <0.000); clinical teaching of private college (P <0.042); program designing (P <0.018) private college; support and resources (P <0.039) between institutes. 1st and 2nd year students’ classroom and teaching difference in public and private (P <0.003, 0.002) college; support and resources (P <0.046) between institutes. Age group highlighted classroom teaching difference in public and private college (P <0.032, 0.043); between institutes (P <0.016) for support and resources. Overall difference of academic satisfaction among institutes was classroom teaching (P <0.000); clinical teaching (P <0.000); support and resources (P <0.001).

Conclusion: Evaluation of student satisfaction has identified important areas for improvement in nursing colleges. UNSAAS is a good tool to evaluate undergraduate nursing student’s satisfaction since it has showed highly favorable reliability in Pakistani sample. Demographic subgroups highlighted differences of academic satisfaction in their own and among public and private institutes. Private college students were satisfied with classroom teaching, support system and resources. While public-sector with clinical teaching. Sharing of expertise and resources could improve satisfaction among both type of institutes.

28. Title: Going Beyond Your Form -Learning Experience Of Masters In Health Professional Education In Pakistan - A Qualitative Study Of Student’s Perspective

Introduction: The number of Master programs in health-care education, focused on developing in-depth competencies for medical education, has proliferated in the past 15 years globally. These programs promise to produce effective leaders and professionals in health professional education, who can manage the curricular change and bring reforms in medical education. One of the major challenges associated with these programs is students encounter a new social science paradigm which is different from what they have experienced learning in basic and clinical sciences. This poses challenges not only to the students but also to the teachers.
Methodology: Qualitative phenomenological study was conducted with students of Master of Medical Education (MME) in the University of Lahore (UOL), a private sector university. Duration of Study is from June to September 2017.

Data collection- Qualitative data was collected through two focus group discussions duration varied from 45 to 52 min. First focus group consisted of six MME student of UOL who were senior clinicians. Second group had five members, all from basic sciences. As a first step in the interview process, the researcher informed participants about the purpose of the study, research procedures, anticipated benefits, their right to withdraw from the study at any time, and protection of confidentiality. A semi-structured interview was conducted through focus groups Transcripts of interviews were produced in Microsoft Word document after listening to audio recordings. The data anonymization was done and participants were given numerical identity. Transcripts were analyzed one by one; NVivo-10, a data analysis tool was used to assist the process of qualitative data analysis.

Results: Eleven people participated in study. There were seven male participant and four female participants. There were six clinicians, five FCPS and one with MCPS degree. Five participants were basic scientists; three with M.Phil. Degree in their subject. Figure 1 shows the most frequently used words in the transcript. Researcher used the metaphor ‘RIDE’ in amusement park for MME and themes are linked as why they want to take ride, what they felt during ride and what are their suggestions to further improve it.

Conclusion: Overall students shared positive experience about the program. Three major themes were identified including, student motivation, experience and suggestions. Self-development was identified as the main motivation to seek admission in MME program. Majority found curriculum development module was the most practical one. They were confident that this will bring a positive change in their institutes. Students suggested that certificate course in health professional education should be criteria for admission in MME program.

29. Title: Exploring Needs Of Medical Students For Co-Curricular And Extracurricular Activities In A Public Sector Medical University

Introduction: Extracurricular activities are an integral part of personal grooming for students; they promote active classroom learning and help in grooming personality characteristics which help them in dealing with stressful life situations both in personal and professional domains. Medical Students have a very tough routine and most of the time they are under stress of examinations. They do not get enough time and opportunities for extra and co-curricular activities within university or college campuses. This study was planned to explore the unmet needs of a medical students for personal grooming in public sector medical university.

Methodology: A cross sectional study was conducted amongst the MBBS students of Faisalabad Medical University. A properly designed and tested questionnaire was distributed among students of all years. Extracurricular activities were divided into five categories: Games, Clubs, Societies, Workshops and Language learning. Sample size was 269 out of which 56 students belonged to 1st year, 58 students were from 2nd year, 47 students classified among 3rd year, 42 students were from 4th year and 56 students belonged to final year.

Results: It is found that Badminton is the highly rated sport, accounted for 57.2% followed by video games (53.15%) and cricket (54.62%). 183 (68.02%) are interested in First Aid Society, 120 (44.60%) prefer Media & Photography club, 119 (44.23%) want to be part of student council. Career counseling 175 (65.05%) and stress management 172 (63.94%) workshops were highly demanded. As for languages majority students showed interest in learning English 186 (69.14%) and Arabic 169 (61.33%). There was a significant link between gender and choices for activities except that Cardiopulmonary resuscitation was the only workshop which was highly rated in juniors and less amongst senior class. One possible reason could be that it is a compulsory course for the final year in this university and juniors are motivated to learn skills. However, this can be further explored in some other study.

Conclusion: It is concluded that majority of the students have shown a keen interest in various extracurricular and co-curricular activities, this gives an idea about student's need about spending time in healthy activities. In this gadgets era when we are living in a world where people are disconnected, this study informs us that students need the proper environment to get involved in healthy activities.
30. Title: Interest Of Undergraduate Students Towards Research In Private Medical Colleges Of Lahore, Pakistan.

**Introduction:** Research is an important tool to update knowledge and facts related to any field including education and medicine. In undergraduate studies, research is considered extremely helpful and encouraging for students towards better career orientation. In medical field, research is essential to render better clinical processes. However, it has been noted that developing countries have a trend far away from research activities. The present study aims to assess interest of medical students towards research and identify factors influencing it. A cross sectional study was done in this regard in which 100 medical students of pre-clinical years were selected conveniently from Lahore Medical and Dental College, Punjab. The participants were explained with the purpose of study and informed consents were collected. Data was analyzed using SPSS. Out of the 100 students selected, 44% were males. The mean age was 19.13 (1.13) years. Majority of the students (94%) indicated interest in research and 92 % showed willingness to pursue research after graduation. It showed that majority of students were more inclined towards clinical research as compare to pre-clinical research.

**Methodology:** Study Settings and Participants: The data was collected from the students of Lahore Medical and Dental College, Punjab. In total, 100 students from the pre-clinical years participated in the study, the participants were explained with the purpose of study and informed consents were collected. Inclusion criteria comprised of students available and willing to participate in study. It was a cross sectional study. Non-probability convenient sampling was used. The instrument consisted of a pre-designed questionnaire. The students were asked about their demographics and interest towards research.

**Results:** The Table 1 shows interest of medical students towards research. Out of the 100 students selected 44% were males. The mean age was 19.13 (1.13) years with 18 was the minimum and 22 years was the maximum age. Majority of the students (94%) indicated interest in research and 92 % showed willingness to pursue research after graduation.

**Conclusion:** It can be concluded that medical students of Lahore Medical and Dental College has keen interest towards research with more than 90% of students have shown positive inclination towards research. Although both male and female students are more interested towards clinical research yet only 19% of students had attended proper training course or workshop on research.

31. Title: The Stressors Of Mbbs Students In A Private Medical College

**Introduction:** Medical education is always being perceived as a stressful profession and this fact is well established. Due to this stress, not only the worth and value of this sacred profession is compromised but it also deteriorates the mental health and the academic performance of the students. Persistent stress also leads to anxiety, depression and negative effects on the cognitive functions, learning, personal and professional development of the students.

**Objective:** The aim of this study is to identify the risk factors called stressors which are causing deleterious effects on medical students and their mental health and also to quantify the magnitude of these stressors. In the long run, as a teacher, we can address that issues and if possible, can take some steps to rectify them.

**Methodology:** This is cross sectional descriptive study which was conducted in obstetric/Gynae department of University College of Medicine and Dentistry (UCMD), University Of Lahore. It was a questionnaire-based study in which validated Medical Student Stressor Questionnaire (MSSQ) was given to the students to identify the sources of stress in MBBS students of UCMD. Then stress level was calculated against 40 items of this questionnaire, which were divided into six domains. Six Likert scale was used for scoring system. Ethical Committee clearance was obtained before the study. Data was analyzed using SPSS version 21.

**Results:** Data from 382 students were analyzed-approximately 70% were female and 30% were male. Sample size was calculated by WHO sample size calculator where the prevalence of stress were found 46.2% among medical students with 95% of confidence interval and 5% of margin of error, the calculated sample size was (n=382) The academic related stressors (Domain 1) and teaching and learning related stressors (Domain 11) were found to be major stressors causing moderate to severe stress.

**Conclusion:** The prevalence of stress is high in medical students. High stress is caused by our academic system, syllabus and curriculum as Domain 1 and Domain11 which include our teaching and learning strategies. Domain 11 also causes mild
to moderate stress while IV, V and VI cause mild stress in medical students. Medical teacher should work on their teaching strategies and curriculum to minimize the stress of the students.

32. Title: Endodontic Teaching At A Pre-Clinical And Clinical Level In Punjab And Khyber-Pakhtunkhwa To Undergraduate Dental Students

Introduction: For reasons of patient safety and to minimize iatrogenic damage to the tooth, students worldwide practice on extracted teeth before going on to perform the procedure on a real patient. Unfortunately for Endodontics, it is not recognized as a separate subject in the PMDC. This is despite the fact that most cases of toothache presenting at dental outpatient departments require some form of endodontic treatment. This puts human and financial resource constraints for the teaching of endodontics.

Methodology: A questionnaire was formulated to ask about the various aspects of pre-clinical and clinical endodontic the questionnaire consisted of questions evaluating different aspects of the course. The questionnaire was filled by 9 different dental schools in Punjab, by the teacher responsible for teaching the subject.

Results: Pre-clinical endodontics was considered by almost all to be of benefit in student learning prior to clinical endodontic procedures. All of the school taught endodontic within the operative dentistry subject and some of them also had their separate endodontic department. Most of the schools had favorable staff to students’ ratio with trained staff of specialized in endodontic. Patients allotted to students were offered endodontic treatment at lower rates. Most of the schools taught preclinical endodontic in 3rd and final years, to divided batches of students in clinical rotation on extracted teeth. The assessment was often included in another subject’s professional examination or not carried out at all.

Conclusion: Although pre-clinical endodontic training is widely given to the undergraduate dental students, it needs more structured course content and a greater role for assessment.

It is high time that endodontics is given its rightful place in the curriculum as a separate subject and recognized by the PMDC as such.

33. Title: Comparison Of Medical Leadership Competencies Of DOCTORS ON Induction And On Completion Of Postgraduate Training In Pediatrics And Paediatric Surgery

Introduction: Background of the Study: Leadership development among medical professional is the need of changing paradigm of today’s healthcare system especially in relation to financial constraints and more accountability. Currently literature is deficient on integration and assessment of medical leadership competencies among Pakistani postgraduate residents.

Methodology: Total 50 residents were included from induction to FCPS/MS/MD of January 2016 for pediatrics and pediatric surgery and 50 in training complete group. A questionnaire designed by NHS for self-evaluation of medical leadership competencies was used. First residents were explained about the medical leadership competencies and about the filing of proforma. Then proforma was distributed and collected back. Results are recorded and entered in the SSPS version 21 and analyzed by applying independent t-test.

Results: Data revealed that there was marked difference of leadership competency score among postgraduate training complete group and PG trainee on induction (P=0.006). This difference was also evident in all 5 leadership competency domains (P values, 0.008, 0.009, 0.035, 0.014, 0.017). There was marked difference among pediatric surgery residents (p=0.001) in training complete and induction group, than pediatrics resident showing none significant difference (p=0.374). Females showed a significant difference with higher leadership competency score in training complete group than induction group (p=0.003) as compared to males (p=0.053). This competency score difference between males and females was significant in training complete group (0.026) but none significant in induction group (0.159). Previous leadership experience had significantly positive effect on leadership competency score in training complete group between having and not having experience but not so in induction group. Previous leadership training having and not having training, had none significant effect in both induction and training complete group (0.068 and 0.532).

Conclusion: Medical leadership is need of day for doctors to cope with the challenges faced by healthcare system in the present era. This is first study on leadership to be conducted in Pakistan on the postgraduate residents. It was observed that there is
relatively high score of leadership competencies among training complete residents than residents of induction group. Pediatric surgery residents showed a better potential than pediatric residents.

34. Title: Reliability Of Research

Introduction: Research is the systematic investigation and study of materials, methods and sources/resources in order to establish facts and reach new conclusions. Reliability is one of the important feature of the research. The term reliability generally refers to the consistency of a measure. Research reliability is the degree to which research method produces stable and consistent results. The aim of this research was to access the reliability of the questionnaire based studies conducted in University College of Dentistry (UCD) University of Lahore (UOL).

Methodology: It is a longitudinal analytical research of Test-retest type. Data type was quantitative.

A validated questionnaire consisting of 34 items was distributed among full population of final year BDS and house officers. The consent was taken. We received 90 completed questionnaires back. The same questionnaire was distributed to the same cohort after one month.

SPSS version 2.0 was used to analyses the data. Individual and overall mean were calculated and compared.

Results: The overall mean for the questionnaire distributed first time is 3.30 and the overall mean for the same questionnaire distributed after one month to the same cohort is 3.32.

Conclusion: The participants in University College of dentistry (UCD) University of Lahore (UOL) knows the value of filling questionnaire in research and show full interest in it. The results remain stable and consistent and hence the questionnaire-based studies conducted within the domain of sample representation are expected to be reliable

35. Title: Insight Of Third Year Medical Students Regarding Teaching Methodology

Introduction: Teaching is one of the main components in educational planning. Taking regular feed backs from the students is important to make teaching more useful and interesting and improve the performance of students.

Methodology: This descriptive cross-sectional was conducted in Rawalpindi medical University (RMU) over a period of two years; 2016-2018. 3rd year medical students were included in the study based on non-probability consecutive sampling and were made to fill specially designed questionnaire at the end of their academic year. Students in other years of MBBS were excluded. Scoring was designed to assess the perception of students regarding the teaching methodology used during their 3rd year medical classes (≤-25=poor,-24-0=fair,1-25=good,26-50=very good,≥51=excellent).Data was entered and analyzed using SPss-23.

Results: Among 220 students included, 47.3% students had a good while 43.2% had a very good perception about the teaching methodology used while only 0.5% considered it poor. Knowledge of teachers was good according to 47.3% students, 46.2% had a good understanding of the concepts taught, 38.7% considered the teacher student interaction during lectures to be good and 36.4% considered it to be fair. 60.8% considered the use of teaching aids during lectures to be good. 82.5% students had ever visited the website of university. Among these only 42.5% had read the learning objectives of lectures and only 30.8% had read the guidelines specified for send-ups. 52.9% students considered the environment of lecture halls uncomfortable.

Conclusion: The teaching methodology used was good according to majority of the students. Most of them had never read the learning outcomes of lectures and guidelines specified by the university for send-ups. The environment of lecture halls was uncomfortable according to majority of students.

36. Title: Role of WhatsApp in Linking the Orthopedic and Allied Department for Updates, Engagement and Education

Introduction: In Orthopedic surgery, we have three teams with senior resident to junior residents. There have different role and responsibilities at work place range from indoor, out-door and emergency work. There needs to deliberate the ward orders, teaching, learning material including journal club article, sharing recent updates, case discussion, clinical class and emergency
opinion of patients’ management plan for various fractures from the consultants. Trainees are also involved in allied health sciences teaching related to orthopedic.

In this study we determined the use of WhatsApp as a tool to use effective than email, technology for sharing of academic, its effects on personal life. Useful effect on engagement at work place during different routines of work amongst orthopedic surgery and allied health professionals of orthotics and prosthesis.

Methodology: This cross-sectional survey was conducted using non-probability, convenient sampling technique at the Department of Orthopedic Surgery and Traumatology from June 1st to July 18th, 2018. Our sample size was 63 participants including house office, senior and junior resident, senior registrar, assistant professor, professors and allied science Orthotics and Prosthesis under-graduate students. Our inclusion criteria were the entire questionnaire which was filled by participants themselves after complete briefing. All questioners filled at the spot without using internet, book and literature. Our exclusion criteria were all questionnaires who were incomplete, insisted to keep with them by the participants, later collected were excluded from the study.

Results: Out of the total 63 participants, there were 54 (85.7%) were male and 09 (14.3%) were females. The mean age of the participants was 33.556±9.895 with minimum age was 22year and maximum age was 59year. All the participants were using the WhatsApp for the past 5year or less. There were 04 (%) house officers, 09 (%) orthotics and prosthesis students, 35 (%) post-graduate trainee, 07 (%) senior registrar, 04 (%) assistant professor, 02 (%) associate professor and 02 (%) Professors

Conclusion: WhatsApp was an easy app to install and use for personal, academic and engagement purpose. Participants didn't feel safe to share the personal information and it was good tool for sharing academic material. It also has addiction that affects their ability at workplace.

37. Title: Does Reflection Writing Effects The Knowledge, Attitude And Skills Of House Officers?

Introduction: There is an emerging trend of reflective writing in medical education that fosters the growth of an individual cognitively, emotionally and morally. In literature there is no evidence that reflection enhanced the competence or skills of medical and dental students. The purpose of this study was to bridge this research gap and to evaluate either reflection writing changes the knowledge, attitude and skills of the doctors or not.

Methodology: There is an emerging trend of reflective writing in medical education that fosters the growth of an individual cognitively, emotionally and morally. In literature there is no evidence that reflection enhanced the competence or skills of medical and dental students. The purpose of this study was to bridge this research gap and to evaluate either reflection writing changes the knowledge, attitude and skills of the doctors or not.

Results: Deepening the learning and understanding, reducing the errors, using the time effectively, purposeful communication with colleagues, refining the surgical skills and enhancement of the problem solving ability were the benefits of reflection.

Conclusion: Reflection writing is a powerful tool for metacognition. Critical reflection of the tasks enhances the knowledge of the doctors as they reflect their lacking. It changes their attitude towards learning and patient care and enhances their clinical skills.

38. Title: Preference Of Teaching Methods By The Medical Students Of Saudi Arabia

Introduction: Learning is a complex process and it needs active participation of all the stakeholders; which are teachers, students and institute. There are multiple factors which affect the effective learning e.g. teaching strategies, teaching methods, teaching and learning styles etc. In any class of a medical school; we always have mix of students and every student has its own capacity of learning. In such a situation; for the better understanding of the concepts and the active participation of all the students, the effective teaching styles or methods play a vital role. That is why it is very important to adopt a teaching method which is according to the needs of the today’s medical student; to enhance their critical thinking and the problem-solving skills.

Methodology: Study will be conducted in the colleges of the medicine of the Princess Noura bint Abdulrehman University, Riyadh and the King Abdul Aziz University, Jeddah. The study is based on cross sectional, self-administered, semi structured
questionnaire about the preference of the teaching methods by the medical students of the Saudi Arabia. This semi structured questionnaire will be distributed by the convenient sampling technique. The data collecting tool is a structured questionnaire consisting of two aspects:

- Preferred teaching methods by the medical students
- Student's perception about different teaching methods.

**Results:** A total of 102 students out of 200 participated in the study with a total turnout of 51%. The most preferred teaching method was PBL (51%) as the students strongly believed that it enhances lateral thinking, leads to better clinical correlation and better communication in between the students. Students also preferred the Socratic teaching method (20.6%) as the second-best teaching method. The didactic lecture was the least preferred teaching method (3.9%). For the clinical teaching methods, majority of the students strongly preferred the bed side teaching (75.5%) while 59.8% students preferred mannequin teaching. A very few students preferred video lectures (14.7%) and role play (7.8%) to see the rare signs when the patients are not available.

**Conclusion:** In our study we have concluded that the Saudi students are very well aware of their requirements for active and deep learning. They were more interested in interactive teaching sessions which could enhance their critical thinking skills and active participation in the class. Therefore, the teachers can incorporate the desired teaching methods to create an efficient learning environment that motivates the students to achieve academic excellence. Some improvements should also be done to make the students aware of the new and more interactive teaching methods, so that they could learn to get more knowledge and critical thinking skills. This would help to give a better quality medical education to get better quality medical graduates.

39. Title: Evolving Role of Social Networking Sites in Undergraduate Surgical Education: Student Perspective

**Introduction:** Social Networking Sites (SNSs) like Facebook, YouTube, Twitter, WhatsApp etc. are evolving as an effective tool for content delivery and educational communications in medical field. However researchers have identified potential concerns about reliability of content, its alignment and synchronization with curricular needs and privacy. Based on these SNSs, a supervised, faculty controlled online platform (Shalimar Surgiomics: www.twaseem.wixsite.com/surgiomics) has been developed to augment undergraduate surgical education in our institution, where content delivery and blogging is supervised. The aim of this study was to evaluate student perceptions regarding use of social networking sites through this controlled online platform.

**Methodology:** A paper based questionnaire was redesigned with required modifications as described previously and was administered among fourth and final year medical students (n=135) at Shalimar Medical & Dental College, Lahore containing both quantitative and qualitative components. The questionnaire evaluated advantages and disadvantages of SNSs use in surgical education.

**Results:** 92% of the participants agreed that social networking sites are the necessity of today’s life. The students overwhelmingly think that SNSs are a source of easy, rapid, timely and up-to-date information on medical issues. These sites are source of effective healthcare communication and can be effectively utilized to promote own self and find career opportunities. Social networking sites are quite effective tool for delivering lectures, notes and other study material. 79% of the students thought that SNSs did improve their understanding about the medical concepts, however only 72% agreed with the notion that SNSs did improve their test and exam results. Many students agreed that SNSs work better when embedded with the traditional teaching strategies. 77% of students thought either they themselves or their colleagues were nervous about participating in such a blog or SNSs portal due to privacy concerns. However 59% of the students were willing to use them despite these concerns. Faculty oversight and control positively impacted on quality of information transfer, content reliability, alignment with curricular needs and privacy issues.

**Conclusion:** Medical students have a significantly positive impression about social networking websites and its role in medical education. Despite some concerns regarding the privacy and security, majority of the students have shown willingness to interact through SNSs to improve their educational perspectives.
40. Title: Effectiveness Of Flipped Classroom With Gamification Approach For Teaching Anatomy To Medical Students

Introduction: Different teaching and learning strategies are being introduced in recent years to involve the students actively, as trends in medical education are changing day by day. Flipped classroom with Gamification is a new teaching strategy introduced from last few years, in which class time can be used for interactive sessions and problem solving. The idea is to design different study-based games for the students, aligned with learning objectives, which encourage and motivate them to actively participate in class and helps them to retain the content for longer duration.

Methodology: This was a quantitative Experimental study conducted in undergraduate students for teaching anatomy in private medical college of Lahore, Pakistan. Intervention was flipped classroom and Gamification technique and students were assessed on pre and post test scores. Only knowledge content was assessed that is why the tool used for assessment was MCQ's. All the students of 1st year MBBS enrolled in UCMD were approached for this study.

Total 160 students of 1st year were divided randomly into three groups Group 1(Traditional teaching method), Group 2(Flipped Classroom method) and Group 3 (Flipped with Gamification Approach) and scores of pre and post-test were analyzed.

Results: Overall response rate of students for this study is 98 percent. All students were below 20 years of age with equal male to female ratio. Findings of the study showed that students studied in Group 3(Flipped with Gamification Approach) achieved highest scores in post-test. When compared with the other groups. Mean difference of Group 3 is (MD=-5.480) as compared to Group 1(Traditional Approach) which is MD=-1.040. Similarly, when compared the Flipped classroom (Group 2) with Traditional group (Group 1), Group 2(Flipped classroom) showed better results. Thus, evident from the statistics that students of group 3(Flipped with Gamification) achieved high scores as compared to other 2 groups.

Conclusion: Student's response to the flipped classroom with Gamification approach was very effective as evident by the statistical analysis. This is true student-centered technique in which students actively took part in different activities and discussions, which helps them to retain the knowledge for longer. In future this teaching approach can be implemented for teaching medical students.

41. Title: Comparison of Computer Literacy in Students and Faculty of CMH Lahore Medical and Dental College

Introduction: It is very important for the medical professionals to be proficient in using computer technology for performing different important tasks. Doctors should have adequate knowledge and skill of computer utility which is required for learning from internet and E books, keeping electronic health records, telemedicine, medical information systems, robotic surgery, medical imaging reporting, patient care decisions, select treatment from different options, and develop their abilities as lifelong learners.

Methodology: A questionnaire was designed after having discussion with two faculty members and a computer expert. It mainly included the six basic functions of the computer usage. We chose only six important functions and tasks related to Microsoft Word (MS Word). MS Word is most commonly used software by medical professionals. The questionnaire included non-weighted scoring system recording score of 6 activities on five-point scale as a computer literacy score. Total score of six variables were recorded. The data was stored in SPSS version 20 and by applying chi-square tests p values were calculated to assess the two tailed significance of difference all six variables between two groups.

Results: Mean age of young medical students was 19.09 years (standard deviation 0.781) while mean age of faculty members was 45.28 years (standard deviation 12.3). in students there were 75 males and 70 females while in faculty there were 26 males and 24 females. Difference of distribution of males and females in both groups was not statistically significant (p-value 0.973). Statistically significant difference of literacy was seen in three out of total six variables while the difference was not statistically significant in the remaining three variables.

Conclusion: In the present time computer literacy is slightly less in the faculty as compared to the students but the difference is insignificant. Students are receptive for e learning and faculty is also ready for the same.
42. Title: Replacement Of Conceptions Developed During Health Professions Education

Introduction: Replacement of concepts is another terminology used for misconceptions which are developed at an early and theoretically the student considers it as correct and builds all other related concepts upon it. This eventually becomes so strong that when they reach their professional studies it becomes extremely difficult to replace the misconception and erase the previously formed schema in their minds. This problem became so prominent that research into students’ misconceptions started and are still continuing so as to identify the areas where replacement of concepts is required providing elaborative evidence about the nature of students’ understandings.

Methodology: Literature search was performed by using database of PubMed, the keyword use was misconception (56 searches) AND learning (143 searches). “PERN was used by database of Bahria University, this included literature and articles from international sources; 2 articles from Pakistan on this topic were consulted (one in international journal and 1 in a local journal). Of these, 49 articles were shortlisted which discussed relation replacement of conception developed during health professions education. “These articles were consulted for this review.

Results: WHY DO STUDENTS HAVE THESE MISCONCEPTIONS? Reports by researchers in science education suggest that students’ misconceptions are often stable, pervasive and resistant to change. Teachers can be astonished to learn that despite their best efforts, students do not grasp fundamental ideas covered in class. Even some of the best students give the right answer but are only using correctly memorized words. NONSCIENTIFIC BELIEFS “include views learned by students from sources other than scientific education, such as religious or mythical teaching” “CONCEPTUAL MISUNDERSTANDINGS arise when students are taught scientific information in a way that does not provoke them to confront paradoxes and conflicts resulting from their own preconceived notions and nonscientific beliefs. To deal with their confusions, students construct faulty models that usually are so weak that the students themselves are insecure about concepts.

Conclusion: Replacement of misconception is a challenging task especially at the level of University students, however it is important to identify those students who have built their misconception but in their minds the schema is correct and they continue to build upon these tasks which is difficult to erase in their minds and ensure that they have accepted the new correct concept and understanding of a topic they have been learning for many years.

43. Title: Re-licensure and Recertification of PMDC certificate: Views from Basic Science Faculty at K.E.M.U.

Introduction: Doctors upon graduation have a greater responsibility of reassessing their knowledge, demonstrating specific skills and showing a positive attitude towards patients. In Pakistan, once a doctor graduates from a medical school, he is given a license to practice for life. There are numerous studies which provide evidence that re-licensure is the primary mode of maintaining competencies and modes of assessing performance in the clinical setup. Similar research in basic medical sciences faculty is scarce. This study was designed to understand the perceptions and attitudes of faculty of basic sciences regarding relicensure of PMDC certificate.

Methodology: Sample size: Sample size was calculated as 108 (95% level of confidence and 5% margin of error) and 55.5% proportion of population knowing about re-licensure Sampling technique Simple Random Sampling

Data collection technique: Questionnaire

Results: Out of 108 respondents 49 (45.37%) were males and 59 (54.63%) were females. The mean age of respondents was 33 years with minimum age of 23 and maximum of 60 years (SD= 9.24). 58 respondents (53.7%) had less than 5 years of teaching experience, 32 respondents (29.6%) had teaching experience between 5-10 years and 18 respondents (16.6%) had teaching experience more than 10 years.

When enquired if they thought that there existed a need for relicensure, 64 respondents (59.25%) thought that there exists a need for relicensure of PMDC and 44 respondent (40.74%) said that there exists no need for Relicensure. Majority agreed that relicensure should be made mandatory and that PMDC should carry out relicensure and CME hours should be the mode of relicensure.
Conclusion: We conclude that Doctors from basic sciences faculty at King Edward Medical University express a unanimous need for re-licensure of PMDC. However a difference of opinion exists on issue of Mandatory versus Voluntary professional development (70.37% vs. 29.63%). The process of re-certification and re-licensing of PMDC certificate is well known to all medical professionals, who generally acknowledge its practicality. We recommend re-licensing through CME hours for re-certification. We recommend that re-licensing through CME be further deliberated by PMDC and other stakeholders.

44. Title: Special Education System In Pakistan (Review Article)

Introduction: Special education is education of physically or mentally handicapped children whose needs cannot be met in an ordinary classroom. In Pakistan disability rate are increasing day by day. Special schools are present only in big cities of Pakistan. A survey of the prevalence of special needs children sponsored by the WHO in 1985 indicated that 10 per cent of the population had some sort of disability, such as emotional disability, visual impairment, hearing impairment, mental retardation, physical disability, learning disability or multiple disabilities. Out of these, only two per cent had access to institutional facilities most of the special schools are run by non-government organization, private school in Pakistan.

Methodology: An individual education program tracking system provides an automated means for creating and administering an entire individual education plan because by I.E.P they get interact with typical developed students in same class rooms, To run this kind of special programs schools have weekly one or two meeting with occupational therapist, speech therapist in which teachers shares the progress reports with them I.E.P also Full fill the demand of Atypical developed student by taped readings of class material, computer-based books and programs for decoding and comprehension, repeated readings, and intensive reading instruction provided in the resource room.

Results: By the time of minimum one year student with Atypical development have increased their grades in class room with fulfillment of their special needs it is also seen Atypical students have improve their handwriting/gross motor skills, taking care of themselves in Basic daily living activities such as one handed dressing of shirt, feeding and toileting activities with a use of their respective special aid this I.E.P program may vary from person to person every individual have their own specific need it also depend on student I.Q level and for results may vary from person to person the duration of improvement may increases/decreases according to student's level of functionality both in physical and mental health

Conclusion: I.E.P. is a useful tool in the administration and implementing of an inclusive policy, I.E.P should be age appropriate, holistic in its approach, flexible and future orientated, consider key long-term goals that reflect learning outcomes in social, academic and life skills development, establish short-term goals that will lead sequentially to the achievement of long-term goals, ensure that the goals are measurable, achievable, supported, time-framed and aim to retain the student at school. More over government universities should increase number of seats for Atypical developed student that he/she may able to peruse his/her choice of career according to their capability of physical and mental health

45. Title: Status of the Departments of Medical Education in the Medical Colleges of Lahore

Introduction: To review the current status of medical education departments in all public and private medical colleges located in the city of Lahore, Pakistan.

Methodology: This was a quantitative, cross sectional descriptive study conducted in PMDC recognized medical colleges of Lahore. Respondents were the heads of department of medical education or any other well-informed faculty member. A questionnaire was prepared to obtain information about the current status of DMEs. The investigator visited all medical colleges for data collection. Both verbal and written consents were obtained and the questionnaire was administered to the resource persons. The investigator also prepared a questionnaire-based check list for the verification of the provided data. The data was organized and entered in SPSS for analysis.

Results: Out of the 18 medical colleges in Lahore, six (33.3%) were public sector and 12 (66.7%) from private sector. The studied medical colleges claimed to have a functional DME. However, eight had established the DMEs during the past five years. Only one (5.6%) head of DME was working on full-time basis. Eleven (61.1%) heads of DMEs, did not have any relevant formal qualification. Eight (44.4%) colleges claimed to have adequate human resources for DME. Thirteen (72.2%) colleges mentioned that adequate financial resources were available. DMEs in private sector medical colleges are playing increasingly significant
role in managing educational activities. Similarly, the senior management of private sector is more concerned in promoting educational activities.

**Conclusion:** There is an increasing recognition towards establishing DMEs in the medical colleges, but their infrastructure, proper functioning and availability of human and financial resources are serious issues requiring immediate attention.

46. **Title:** Evaluation of the Impact of MARSI on Assessment Scores among Medical Undergraduates with English as L2: An Interventional Study.

**Introduction:** Importance of metacognition is highlighted by current cognitive approaches. Awareness of one’s own learning processes, their physiology, optimization and control is facilitated by “Learning how to learn”. Weak construct validity of the Metacognitive Awareness of Reading Strategy Inventory (MARSI) has been shown by some, suggesting that its existing form is not appropriate for use beyond 12th grade students as they acquire reading proficiency. Objective: To establish the construct validity of MARSI in 13th and 14th grade students with English as a second language (L2) and to evaluate its impact over assessment score.

**Methodology:** The construct validity of the MARSI was tested randomly with 24 medical students of 1st year and 2nd year each (with English as L2), and its convergent validity with reading comprehension ability was investigated against their quantitative scores in early and late session exams in a private medical school as an interventional approach.

**Results:** Significant improvement in result was seen in 1st as well as 2nd year medical undergraduates after intervention by MARSI on applying paired samples test, though improvement in score of first year students was significantly higher as compared to 2nd year class by Independent samples test. Among individual reading strategies, Mc Nemar’s test showed significant increase in Global strategies in only 1st year students but no significant change in Problem solving strategies in 1st as well as 2nd year students, however, significant improvement was observed in support strategies in 2nd year students only.

**Conclusion:** Performance of 1st and 2nd year L2 English students in theory exams can be significantly be improved by MARSI intervention. More focus is needed to improve problem solving strategies than the other reading strategies that may contribute to further improvement.

47. **Title:** Knowledge, Skill And Attitude Among Fresh Dental Graduates About Orthodontics

**Introduction:** Orthodontics is an important part of the 4 year BDS program. According to the American Association of Orthodontists, orthodontics and dent facial orthopedics is defined as the area of dentistry which includes the diagnosis, prevention, interception, guidance and correction of malrelationships of the developing or mature orofacial structures. The purpose of this research is to find out if the fresh dental graduates of Pakistan are competent enough to deal with orthodontic cases without supervision.

**Methodology:** It was a descriptive study conducted in June 2018. A well-structured questionnaire based on American, European, Canadian and Australian competencies was developed and distributed among the fresh graduates of Fatima memorial hospital.

**Results:** Out of the 33 participants 22 were practicing general dentistry. For the knowledge part the most common answer among the graduates was “fairly confident” which shows that the graduates did not have a good grip on theoretical orthodontic knowledge. For the skills part the first question that inquired about the number of patients done by the students during final year the most common answer was none. Three patients being the second most common answer. 7 participants did not respond to this question and it may be assumed that it was because they did not observe any patient in their final year. For the remaining questions the most common answer was “fairly confident” which means that the students did not have enough confidence in their orthodontic skills to be able to do orthodontic cases independently. For the attitude section majority of the students had not carried out any diagnostic orthodontic procedure during their final year training. Majority of the students had an idea about the right time to start orthodontic treatment also which patients can be potential candidates for orthodontic treatment. Out of thirty three graduates, 22 of them were working as a general dental practioner. 29 were of the opinion that an orthodontic case should be referred to an orthodontist rather than being treated by a general dental practioner. 29 students out of 33 believed
that they could not provide orthodontic services based on their pre-doctoral training alone. For the last question in the attitude section 21 graduates out of 33 responded. All of them felt that they were not confident at all in treating an orthodontic case without supervision.

**Conclusion:** The present study showed that undergraduates are not confident enough to treat orthodontic cases without supervision at their private practices since they are not given enough exposure to patients during their training. Hence the conclusion that Dental colleges in Pakistan are not preparing dentists who feel competent in the field of orthodontics. It points out that students are well aware about the theoretical knowledge but they lack clinical skills.

**48. Title:** Learning To Cure With Care: Awareness Of Faculty And Medical Students About Students’ Roles Related To Patient Safety

**Introduction:** The basic aim of this study was to explore the awareness of faculty and undergraduate medical students about students’ roles with respect to patient safety, to define the areas, domains and limits which should be taught to our students and made a part of undergraduate curriculum so that the students learn to their best, gain adequate knowledge, develop appropriate skills and behavioral attitudes by practicing patient safety principles in a way that are in accordance with international standards and demands, without compromising their educational requirements.

**Methodology:** It was a descriptive exploratory qualitative research, conducted at Islamic International Medical College, Rawalpindi including faculty members and medical students of final year MBBS. WHO patient safety curriculum guideline for undergraduate medical schools was taken as reference. Thematic narrative analysis was done using Atlas ti software.

**Results:** Initially 18 codes for faculty and 12 for students were formed which were later reduced to 6 themes having sub themes. The themes were 1) Importance of patient safety education, 2) Importance of strong student-patient relationship, 3) Code of conduct, 4) Students and effective team, 5) Students part in management plans and 6) Students and medical errors. Sub themes were a) Workplace based learning and practices, b) Complexity of systems and ability to deal with them, c) Importance of proper standards and protocols for theme 1, d) Professional approach to patient, e) Necessity of consent taking, f) Communication skills, g) Respect for the privacy of patient for theme 2, h) History taking and examination, i) Patient identity, j) Diagnosis and treatment plans, k) Students and patient counselling for theme 5 and l) Students and error disclosure for theme 6.

**Conclusion:** It is the need of our society to bring reforms in our medical curriculum with respect to patient safety as early as possible. The concept of medical errors, their solution, reporting system, effective team management, and team work and quality assurance methods are the domains which are neglected.

**49. Title:** Patient Safety Awareness Among Postgraduate Students And Nurses In A Tertiary Health Care Facility

**Introduction:** Patient safety (PS) and quality improvement of health care delivery to the patients are among the highest priorities of health care system. Building a safe health care system means designing processes of care to ensure that patients are safe from accidental injury. PS education and its training for all health care providers including both doctors and nurses is an important required learning at all levels. The literature on PS education in medical school and nursing curricula is not properly developed. In Pakistani medical and nursing school curriculum, there is dearth of information regarding PS and is not given due importance.

**Methodology:** Objective: To determine the knowledge of patient safety among postgraduate residents and nurses in a tertiary care hospital.

This casual comparative study was conducted among the postgraduate residents (PGR) and nurses working at The Children's Hospital Lahore in 2017. Both PGR and nurses were asked to complete APSQ-IV questionnaire about patient safety on 7 point Likert scale. There were ten domains and 30 questions, ten of 30 questions were negative statements and were scored in reverse order. Data was analyzed using SPSS version 20 and t-test was used to compare the mean score between two groups. The survey was anonymous.

**Results:** A total of 150 residents and 150 nurses were included. The scores of both PGR and nurses were similar in all domains.
having positively worded questions with insignificant difference (p=0.141). In the reverse-coded questions the nurses showed positive perception with higher mean score as compared to PGR (p=0.004). The PGR in the early years of residency had higher mean score in positively worded question as compared to residents who were in last years of training (p=0.006). No difference noted in nurses’ years of experience (p=0.733). Medical error disclosure domain was reported lowest by both PGR and nurses.

**Conclusion:** Both postgraduate residents and nurses showed positive attitude with good knowledge and perception towards patient safety analyzed through this questionnaire. Lowest rated scores were from error disclosure confidence domain. The results encourage pilot projects with the ultimate goal of establishing a feasible reporting system about medical errors. This study results can help our leader and curricular developers to include error disclosure teaching as a compulsory part of medical education both in medicine and nursing curricula. PS programs exposure can lead to better PS knowledge and ultimately to better patient care.

**50. Title:** “Quality Is Not An Act, It Is A Habit” – Aristotle… Survey Of Human Factors And Patient Safety In Operation Theaters Of A Peripheral Teaching Hospital

**Introduction:** Non-technical skills are directly related to safe surgical performance. The pathophysiology of this relation is not clear. The attitudes of surgical teams towards nontechnical skills may allow educationists to elaborate on this relationship and will further help in development of training and assessment programs.

**Objective:** To know the attitudes towards non-technical skills in operation theatre among surgical and allied postgraduate trainees of Aziz Bhatti Shaheed Teaching hospital (ABSTH), Gujarat, Pakistan.

**Methodology:** Descriptive cross sectional survey. Thirty post graduate trainees working in Aziz Bhatti Shaheed Teaching Hospital, Gujarat, theaters completed the Operating Room Management Attitudes Questionnaire (ORMAQ).

**Results:** Post graduate trainees have positive views on all aspects of ORMAQ survey except on procedural compliance and error disclosure indicating discrepancies in implementation and awareness.

**Conclusion:** The results are on the large part aligned with previous ORMAQ surveys of surgical teams in other countries. The differences emphasize potential threat to the patient safety due to sketchy systematic working and cultural norms. The findings support implementation of protocols and guidelines through the use of team interventions and human factor training. Finally, this survey helps in data collection for a hospital’s quality assurance program.

**51. Title:** Analysis of Compliance of Surgical Safety Protocols in Operating Rooms of Tertiary Care Hospitals of Lahore

**Introduction:** The objectives of this study are to determine the awareness of health care professionals towards surgical safety protocols (SSP), to assess the compliance with standardized SSP and to analyze the associations between experience of health care providers, Team work climate, safety climate and compliance to SSP in operating rooms (ORs) of tertiary care hospitals of Lahore.

**Methodology:** A cross-sectional study of 178 health care providers including surgeons and other OT related staff was conducted in four tertiary care hospitals of Lahore within a time period of two months, based on convenient sampling. A pre-validated questionnaire was distributed among the health care professionals after taking consent. Data was then analyzed on SPSS 21 and statistical tests were applied accordingly.

**Results:** A total of 178 health care providers took part in our study. 61.8% of the respondents needed to improve their compliance of SSP, whereas 38.2% had good compliance. 55.6% reported to have good safety climate of ORs and 44.4% needed improvement. 43.3% reported to have a good team work environment but 56.7% needed improvement.

Our study found a statistically significant association between safety climate of ORs and adoption of SSP. A statistically significant association was also found between team work climate and compliance of SSP.
Conclusion: The results suggest that most of the health care professionals in tertiary care hospitals of Lahore are not aware of SSP, WHO SSCL and its implementation in ORs. WHO SSCL, is not currently in use in greater number of the ORs. Majority of the OR personnel did not receive any training regarding the use of safety checklist.

52. Title: Perception of patient safety among Final year MBBS students at King Edward Medical University Lahore.

Introduction: Safety of the patient is a vital part of health field as far as ultimate healthcare is concerned. Medical students are required to understand the concepts of patient safety and “Do no harm” theory in medical practice. Students who do not perceive the idea of patient safety suffer from poor performance in clinical life. Hence, tutoring of medical students in respect to patient safety is very important. In past, many studies have been done to evaluate the perception of this idea of ensuring safety of patients among medical students but a local study can benefit a lot in addressing the issue.

Methodology: Total 179 students (n=179) were selected for study. Any other respondent other than final year students were omitted from study. The data collection tool was questionnaire Response of the participants were recorded and computed into SPSS 19. Descriptive analysis was done.

Results: Majority of the participants (55%) indicated lack in overall knowledge about patient safety and their curriculum was lacking in dedicated topics about patient safety education. Specifically speaking, students (25%) misunderstood the nature of possible human error in provision of healthcare facilities, e.g. saying that senior doctors don't make mistakes when dealing with the patients. Also, the students had very little knowledge about disclosing the medical error to the patients or attendants (57%) and faculty members (48%). Many students (59%) did not know that a physician can work on his skills and improve ultimate patient safety by a targeted practice.

Conclusion: The final year MBBS students at King Edward Medical University Lahore lacked specific knowledge about patient safety but overall, they showed keen interest in learning patient safety concepts and wanted to apply them when in clinical settings.

Concept of patient safety should be made a part of syllabus of undergraduates to improve the awareness of patient wellbeing and safety.

53. Title: Patient safety awareness among Undergraduate Medical Students in Pakistani Medical School

Introduction: Patient safety is an emerging healthcare discipline. Integration of patient safety in the medical education is a crucial measure to teach and train the future doctors for the delivery of safe care. To promote patient safety, baseline data is needed to design effective educational programs on patient safety based on students’ needs.

Objective: To measure the level of awareness of patient safety among undergraduate medical students in Pakistani Medical School and to find the difference with respect to gender and prior experience with medical error.

Methodology: This cross-sectional study was conducted at the University Of Lahore (UOL), Pakistan from January to March 2017, and comprised final year medical students. Data was collected using a questionnaire ‘APSQIII’ on 7 point Likert scale. Eight questions were reverse coded. Survey was anonymous. SPSS package 20 was used for statistical analysis.

Results: Questionnaire was filled by 122 students, with 81% response rate. The best score 6.17 was given for the ‘team functioning’, followed by 6.04 for ‘long working hours as a cause of medical error’. The domains regarding involvement of patient, confidence to report medical errors and role of training and learning on patient safety scored high in the agreed range of >5. Reverse coded questions about ‘professional incompetence as an error cause’ and ‘disclosure of errors’ showed negative perception. No significant differences of perceptions were found with respect to gender and prior experience with medical error (p=>0.05).

Conclusion: Undergraduate medical students at UOL had a positive attitude towards patient safety. However, there were misconceptions about causes of medical errors and error disclosure among students and patient safety education needs to be incorporated in medical curriculum of Pakistan.
54. Title: Perception of Central Induction Policy among trainees of Punjab

Introduction: CIP is new policy for induction into different specialties for residency. This policy faced a lot of controversy by the young doctors but it was implemented in May 2016 and no feedback was taken by the Health department about the effectiveness and flaws. This policy allocates seats based on the performance in medical school, marks of post-graduation entrance exam, degree & house job of public institute, experience of periphery & research. Previous policy was just to pass entrance exam and then approach the professor. This discrepancy aroused the need for data collection from the postgraduate trainees to determine its effectiveness.

Methodology: An interview based qualitative study was conducted in four Tertiary care hospitals of two cities of Punjab. Initially request forms were sent to 75 post-graduate residents inducted through CIP and before CIP. 39 residents participated in the study after giving consent. Participants were selected randomly. They were interviewed at the places and time chosen by the participants themselves. Interview questions were selected by the researchers after discussion. Interviews were recorded in interviewer’s phones. Each interview was heard at least thrice, manuscripts were prepared in the language and words of the participant. Manuscripts were discussed by the team and themes identified.

Results: Based on interviews, three common themes in favor of CIP were 1) All the residents believe that this policy is merit based and everyone gets a fair chance of induction in specialty of own choice. 2) All slots are paid from day one and faces no exploitation at the hands of clerical staff 3) Primary health care centers are being filled by young candidates.

Three bad themes of CIP are 1) issues with choice of specialty and place of work. 2) Delay in start of training 3) Discrepancy in special cases like wedlock, FMGs and authenticity of Research papers

Conclusion: Candidates are mostly satisfied with the Central Induction Policy model however there are areas which can be improved.

55. Title: A Study on Postgraduate Trainees Attitudes towards Research

Introduction: The declining number of researchers in the field of medicine over recent years has aroused interest to inquire into the causes leading to it. Thus, the objective of this study was to promote and preserve research culture amongst the young doctors by assessing the attitude of postgraduate trainees towards research.

Methodology: It was a descriptive, cross-sectional study in which an anonymous questionnaire, comprising of 32 questions in Likert scale format, was distributed to surgical, medical and allied residents of six institutes. Descriptive and inferential statistics were utilized to analyze the responses.

Results: The overall response rate was 56%. The mean score for “research usefulness” was 3.25; for “research anxiety was 2.64; for “positive attitude was 2.74; for “relevance to life” was 2.47; and for “research difficulty was 2.70. The overall mean was 2.76. Although majority of the postgraduate trainees perceived research useful to their professional lives but at the same time experienced research anxiety, difficulty during the process and thought it was irrelevant to their personal lives. There was no apparent difference between the mean scores for different genders, age groups and specialty.

Conclusion: The results of the study concluded that overall postgraduate trainees view research with a negative attitude.

56. Title: Educational Environment; Perception Of Junior Doctors Using Pheem Questionnaire At Social Security Hospital/Ucm, University Of Lahore

Introduction: The perception of educational environment is crucial for junior doctors to complete training in a specific field of heath profession. It greatly affects the quality of learning. Previously there was no satisfactory way of measuring educational environment. A lot of research initially on undergraduate’s educational climate done before 1993 when first time postgraduate educational atmosphere was assessed in a residency doctors through a questionnaire. Genn and Harden (2001) highlighted the potential of understanding of learning environment for curriculum change and management (Harden, 2001).

Methodology: This cross-sectional study was conducted from 5th June to 5th July 2018 at Social Security Hospital, Multan Road, and Approval for study was obtained from The Ethical Review Board, University of Lahore. We assessed the teaching
and learning atmosphere in the hospital using pre-validated PHEEM questionnaire. The respondents were asked to read each statement carefully and mark using 5-point Likert scale ranging from ‘strongly agree’ to ‘strongly disagree’. The PHEEM questionnaire got filled by the participants after taking verbal consent. Chi-square test, independent t-test and ANOVA used for statistical comparison and p value <0.05 as significant.

**Results:** Out of 112 junior doctors, 100 doctors completed PHEEM questionnaire. Response rate was 83 percent. The junior doctors from medical (40%), surgical (37%) and pediatric (23%) specialties participated in the study. In training grade, there were house officers 58%, Medical officers 37% and Registrar 7%. Moreover 60 % were males and 40 % were female. The mean age of the doctors was 26.97+5.165. The scores for three subsets of autonomy, teaching and social support were 33.43+6.733, 36.70+8.032 and 23.53+5.088 respectively. The males perceived educational environment more positive regarding the autonomy and teaching than the female participants and this difference was significant (P value<.05 and .001 respectively). Female doctor’s perception about the social support was negative as compared to males and the difference was significant. The overall pheem score (93.44+17.773) was more of a positive in study population. Although, difference in total pheem score between both gender was significant (p value <.05).

**Conclusion:** PHEEM questionnaire is a tool to find out the weaknesses and strengths of an educational environment in teaching hospitals affiliated with medical colleges for junior doctors. The specialties perception is another area that need improvement to promote training of doctors and will serve as guideline for future prospects of specific specialty, teaching and learning environment.

57. **Title:** Burnout among Pediatric Residents and Junior Pediatric Consultants Working at a Tertiary Care Hospital

**Introduction:** Burnout is prevalent amongst workers involved in helping professions like teachers and physicians. It is commonly high among doctors especially in surgeons, gynecologists and pediatricians. Burnout is a state of chronic stress causing various levels of physical and psychological exhaustion suffered by the individual. There is high level of burnout among residents and junior doctors particularly in their early training phase. Moreover, burnout among residents can affect the delivery of safe care, satisfaction of patients and physicians’ emotional well-being. We planned this study to measure the level of burnout among pediatric postgraduate residents and junior consultants of senior registrar level.

**Methodology:** This cross-sectional study was conducted in the April 2018 among the postgraduate residents (PGR) and junior consultants (JC) working at The Children’s Hospital Lahore. Participants were asked to complete Copenhagen Burnout Inventory questionnaire about burnout on 5 point Likert scale. ‘100 (always), 75 (often), 50 (sometimes), 25 (seldom) and 0 (never/almost never or according to intensity ranging from ‘a very low degree’ to ‘to a very high degree’. Three question were added related to hospital factors. Data was analyzed using SPSS version 20. Students t-test and chi square test were used to compare the burnout. The survey was anonymous.

**Results:** A total of 227 participants including 177 PGR and 50 JC completed the questionnaire with a response rate of 84% and 86% respectively. There was a female predominance 140 (61.7%). Majority were from pediatric medicine 173 (76.2%). The mean personal and work related-burnout was high among PGRs as compared to JC (18.685.01vs 16.624.57) (p=0.008) and (21.145.57 vs. 18.565.52) (p=0.004) respectively. Similarly, there was significantly more burnout among pediatric medicine study participants as compared to pediatric surgery and pediatric diagnostics (radiology and pathology) in all domains (personal BO; p=0.030, work-related BO; p=0.021, patient related BO; 0.033 and hospital related BO; 0.001).

**Conclusion:** Tertiary care hospital postgraduate residents and junior consultants face moderate burnout regarding personal, work related, patient related and hospital related factors. Postgraduate residents had significantly more personal and work related burnout as compared to junior consultants but there was no difference based on gender or year of training. Largest specialty of Pediatric medicine residents and junior consultants face more stress as compared to other specialties. Our hospital administration must look into it and implement changes in the policy of hospital working without house officers.
58. Title: Burnout in Postgraduate Dental students of Basic Dental Sciences

Introduction: Burnout has been documented among undergraduate dental students and also dental practitioners, however, the evidence on post graduate students is less and none is reported regarding the Pakistani post graduate students.

Methodology: All the post graduate students enrolled in non-clinical dental sciences such as Oral Pathology, Oral Biology, Dental Materials and Immunology at the University of Health Sciences (n=30) completed the Maslach Burnout Inventory. Burnout was measured using the scales of “emotional exhaustion (EE), depersonalization (DP) and personal accomplishment. Medians, Means and standard deviation was computed for all the responses recorded on Likert scale. Mann Whitney-U was used to stratify the results according to gender and marital status. In all analysis p-value of < 0.05 was taken as statistically significant.

Results: The postgraduate students scored high for EE and PA domain while had exhibit less than threshold scores for DP. Males scored for EE and PA domains but less for DP domain as compared to female students. Single students scored high for EE and PA domains as compared to the married students. The highest ranked item was found to be “I feel used up at end of the work day” while the lowest rank was “I really do not care what happens to some recipients”. There was no association of burnout with gender however marital status was linked to certain burnout items.

Conclusion: Burn out scores were exhibited for emotional exhaustion and personal accomplishment domains among post graduate students but could not be reported for the de-personalization domain. Marital status can be an influencer regarding an individual's state of burnout.

59. Title: Post Graduate Perception Of Stress Levels, Educational Environment And Their Association At Liaquat University Hospital, Hyderabad/Jamshoro

Introduction: The educational environment is an important determinant of the students' behavior and is related to their achievements. Different elements of educational environment i.e. physical, emotional and intellectual put great stress on the students’ minds and shapes perception of the educational environment.

Objective: To measure the post-graduate's residents perception regarding hospital educational environment and stress levels at Liaquat University Hospital, Hyderabad/Jamshoro (Pakistan).

Methodology: This cross sectional study was conducted at Liaquat University Hospital, Hyderabad/Jamshoro, from May, 2018 to July, 2018 on a sample of 94 post graduate residents working at the said hospital for more than 6 months. Sample was chosen via convenience sampling and after taking informed written consent, an anonymous self-administered questionnaire in English, consisting of Likert type modified form of Post-Graduate Hospital Educational Environment Measure (PHEEM) and Perceived Stress Scale, was used to obtain data. Data was analyzed via SPSS v. 19.0 and MS Excel 2013.

Results: Out of 130 residents, 72.3% completed the questionnaire. Majority of the sample was male (59.58%). The mean score of PHEEM was found to be 92.87 + 13.34 and the mean perceived stress was found to be high i.e. 28.34 + 6.45. Female residents reported higher levels of stress. Higher stress levels were also negatively associated with the PHEEM score.

Conclusion: Most of the residents perceived the educational environment as not favorable and the outcome was significantly associated with higher stress levels. There is dire need to address the areas of insufficiency and work towards provision of standardized clinical training.

60. Title: Perception of Plastic Surgery residents about concept, process and application of reflective practice in their training

Introduction: Reflective practice is essential for professional development of residents. Though earlier research has tried to explore the interventions to build and improve the reflective aptitude and skills of undergraduate students, there appears to be dearth of research pertaining to the understanding of reflection in the post graduate training programs.

Methodology: A qualitative study based on phenomenological approach and epistemological stance was used to generate
views of residents on the research questions. A semi-structured interview pattern was used to get a detailed perspective of the 10 plastic surgery residents about the research questions. The interviews were written down accurately word for word. The author searched for key words and phrases. The data were then analyzed using an analytical process which involved a number of interconnected stages to classify and organize data according to key themes and subthemes.

**Results:** Five main themes emerged following data analysis: reflective practice-difficult to perceive, personal development, reflective practice for learning and patient care and reflective conversation. Participants had diversity of thoughts on the concept of reflective practice but they had similar understanding of applications of reflective practice including role in self-development, patient care and individual and collaborative learning; and improvement in practice and surgical skills. The participants did not limit the reflective conversation to self but considered ‘conversation with others’ as important component of reflection. Participants narrated that when they had to reflect upon situations related to patient care, interpersonal relations and learning sessions, the conversations held with their colleagues formed an important part of their decision for future course of events.

**Conclusion:** The concept of reflective practice, though, is difficult to perceive but it is essential for professional development of residents. The findings also suggest that in communities of practice, reflecting together and sharing experiences with others is the new face of reflection. In order to serve the complex needs of today’s communities of practice, ingenious and practical ways of thinking are required for productivity of reflective practice.

61. Title: On Toes”: Designing An Epa Framework On “Teamwork In Obstetric Emergency Situations (Toes)” For Postgraduate Residents--- A Modified Delphi Study

**Introduction:** Poor teamwork and lack of interpersonal skills is responsible for 85% of maternal morbidity and mortality. Effective teamwork training reduces the perioperative mortality in Obstetrics but there is a lack of teamwork training and assessment at workplace. An EPA on teamwork is therefore the need of the hour, especially in the context of obstetric emergencies to reduce maternal mortality.

**Methodology:** A modified Delphi-quantitative study was done in a six months period after approval from Ethical Review Committee, in three stages. Purposive sampling of experts with FCPS and 10 years practical experience was done and 60 experts were invited to participate. In the first stage, extensive literature review was done to identify different teamwork modules, their tasks and competencies. This provided a basis for a structured questionnaire; with some open-ended questions, which was sent to the participants in Round 1 Delphi. Items with more than 80% consensus were identified and descriptive statistics were calculated. Items on which agreement could not be established and additional items identified were sent to the experts again in round 2 for consensus. In the third round, all items of round 1 and 2 with their group responses and previous responses were sent to the participants and consistency/ stability of results was calculated by McNamara’s chi-square test.

**Results:** Thirty-five participants responded in the first round, 29 in second round and 20 responded by the third round. In the first round, consensus was achieved on all the competencies (42) of four EPAs. Regarding the assessment strategies, assessment methods were ranked for importance whereas, frequency of assessments failed to accomplish consensus. There was also lack of agreement on the supervision levels. In the second round, consensus was achieved on all the additional competencies except three (17), assessment frequency and majority of the supervision levels. In the third round, all competencies attained consensus and the results were found to be highly reliable and statistically consistent as compared to the previous rounds. Each EPA had pertinent competencies relating to knowledge, skills and attitudes. The assessment methods were ranked as case based discussions, role-plays, simulations, short and long practice observations in their order of importance. Frequency of assessment was identified as four monthly and supervision levels were assigned for each EPA in all four years of residency.

**Conclusion:** EPA framework ON TOES was designed through a rigorous 3 round modified Delphi technique and resulted in a total of 62 competencies in four EPAs, with multiple methods of assessments four monthly and designated supervision levels for each EPA in each year of residency for postgraduate obstetric residents. This framework can be implemented in postgraduate obstetric programs to reduce maternal mortality worldwide.
62. Title: Burnout in Gynecology Residents---- A Myth or Reality

Introduction: Burnout is a psychological phenomenon which leads to emotional disturbances and difficulty in coping with day to day stressors of workplace environment.

It is emerging as a major problem in the recent past. The training program of gynecology residents produce a lot of stress related to the emergency condition of gynecology patients, its demand for quick treatment actions and expectations of the patient and their relatives. The large number of patients per resident arriving in emergency for treatment during each duty is also a big stress factor. Burnout leads to physical as well as mental disability reflecting in poor work quality and increased chances of medical errors. There are no such studies conducted here in gynecology residents about burnout and its predisposing factors. This study will try to identify the level of burnout in residents of gynecology at a newly developed medical college located in periphery of province away from central cities and their backup facilities.

Methodology: This is a cross sectional study conducted at Nawaz Sharif Medical College, Gujrat from 1st -30th June, 2018. The residents of gynecology from unit 1 and 2 were included on voluntary basis. Approval was taken from hospital ethical review board. Anonymous Performa including demographic detail and Maslach burnout inventory –human survey scale was distributed in the resident's .MBI-HSS was used to evaluate burnout in gynecology residents. Data analysis was done using SPSS version 20.Only the residents having gynecology as their primary field were included. This study was conducted over a period of 30 days from 1-30 June, 2018.

Results: Total 40 participants filled the Performa. 65% were below 29 years of age and 35% were between29-39 years of age. 60% were first and second year residents.40% were third and fourth year residents.75% were living at home and 25% at hostel. 75% were having income between 1-2 lacs. 25% were having income less than one lac.65% were doing duties for more than 85 hours per week. Mean score for all three components of MBI-HSS including emotional exhaustion, depersonalization and personal accomplishment were in high range indicating severe burnout in gynecology residents.

Conclusion: This study showed that severe burnout is prevalent in residents of gynecology. Certain modifications in the training program especially reduction in duty hours, more support by supervisors, and increase in the stipend of trainees could help in decreasing the burnout among the residents.

63. Title: Medical Students’ Perception And Involvement In Academic Dishonesty: A Cross-Sectional Study In Lahore, Pakistan

Introduction: Academic dishonesty is a complex issue prevalent in medical institutions around the globe. The aim of this study is to determine the perception and involvement of medical students in academically unethical behaviors and potential relationship between the two variables.

Methodology: Methods: A self-administered questionnaire was used to collect data from 125 MBBS medical students of a private medical college of Lahore, Pakistan. Results were evaluated using chi-square and Fisher’s exact test to determine the association of perception with involvement.

Results: 63.2% of respondents were aware of institutional regulations on academic dishonesty but had low understanding and support for these policies. 87.2% of students had witnessed a classmate cheating in a test but majority never reported these acts. High academic workload and family pressures were the leading causes of involvement in academic dishonesty. Sharing assignment’s matter and helping a colleague in a test were some of the highly occurring form of academic misconduct. Participants considered that copying colleague’s work without permission and using electronic gadgets for help in exams was a serious offence but copying with permission was not. There was no difference between involvement score of students who had awareness about regulations as compared to students who do not have information about it.

Conclusion: This study elucidates that participants get involve in cheating besides being aware of institutional regulations on academic dishonesty and believe that there is no harm in cheating with consent. Institutions should take measures to inculcate values of academic integrity in students and help them better understand the severity of penalties.
64. Title: Doctors’ Experiences And Awareness Of Non-Technical Skills, A Way To The Development Of A Behavioral Marker System For Patient Management

**Introduction:** The complement technical skills, contributes to efficient task performance and improve ‘safe practice’ by health professionals. Success with non-technical skills training in other industries is achieved has led to widespread permutation to healthcare education, with non-technical skills. We explore the junior doctor’s awareness and application of nontechnical skills needed to work in hospitals. The cognitive, social and personal resource skill that complement technical skill, and contribute to safe and efficient task performance is called nontechnical skill. There is growing awareness that non-technical skills are essential for competent practice and non-technical skills are the integral part of many training programs.

**Methodology:** To rank the importance and to determine the awareness of non-technical skills by the junior doctors essential to work efficiently and safely at hospitals. A cross-sectional study was conducted among the post graduate trainee doctors and house officers at department of medicine services hospital Lahore. Two hundred doctors participated in the study. Two questionnaires were distributed simultaneously to each participant. First one was structured to inquire about the ranking of ten nontechnical skills in the terms of importance from one to ten. The other questionnaire indirectly assessed these skills by scenario-based questions taken from text book of medicines.

**Results:** In the study ‘Analysis of situation’ was ranked as the most important non-technical skill and dealing with the patients in clinical isolation as least important. Significant difference was observed among non-technical skills mean rank score (p < 0.001). Analysis of situation was most important followed by fatigue management and task prioritization. Stage of medical training was associated with differences in ranking patterns for analysis of situation (p<0.001), decision making (p=0.046), communication skills (p<0.001), team working (p<0.001), leadership (p<0.001), fatigue management (p<0.001), task prioritization (p<0.001), and planning of work at call (p=0.001). 52% doctors were aware of proper use of non-technical skills (p=0.476).

**Conclusion:** It is observed that there is a discrepancy between the awareness and experience of junior doctor about non-technical skills. This suggests a training gap. There is a need for to update the medical education at undergraduate and postgraduate levels to adequately train the doctors in all the non-technical skills for further improvement in health care. These skills can be improved at institutional levels by simulation based training or by direct observation at workplace. These skills need to be integrated in medical curricula as a countermeasure for human error. Poor nontechnical skills are a significant cause of adverse medical events in patients presenting with accidents and other emergencies.

65. Title: Attitude Of Hospital Faculty Towards Collaborative Practice

**Introduction:** Collaborative practice is important component of Interprofessional education (IPE). This is an integral part to train health care professionals. There is a very limited research probing the attitudes of hospital faculty about collaborative practice. The objective of this study is to highlight the faculty attitude towards collaborative practice in a hospital.

**Methodology:** Its cross-sectional study done by questionnaire through non-probability sampling technique. This study was conducted in Punjab Social Security Health Management Company Hospital Manga-Raiwind. The duration of study was two weeks (from 24 June 2018 to 7 July 2018). The sample size of the study was 30. All consultants including two from medical specialist, two surgeons, an eye specialist, an ENT surgeon, a child specialist, neonatologist, an anesthetist, physiotherapist, optometrist, audiologist, nutritionist all medical officers 18.

**Results:** When they were asked the Interprofessional communication skill, 10 (33.3) were strongly agreed, 15 (50.0%) were agreed and 5 (16.7%) were neither agreed nor disagreed. While asking about the use of medical term in their daily practice with each other, 11 (36.7%) were strongly agreed 13 (43.3%) were agrees 5 (16.7%) were neutral and 1 (3.3%) disagreed. 3) participants were asked about their role with health care profession team 16(53.3) were strongly agreed 11 (36.7%) were agreed and 3 (10%) gave neutral response

**Conclusion:** There is a very less awareness about the IPE. Hospital faculty attitude about knowledge, understanding and application of IPE is lacking in the daily hospital practice
66. Title: Patients’ Attitudes towards Presence of Medical Students during Ultrasonography

Introduction: The consent and cooperation of patients regarding involvement of medical students in their care is vital to medical education. The use of ultrasound as a teaching modality is being increasingly incorporated in integrated curriculum by medical schools. Recent transitions in medical curriculum have also promoted early clinical visits to all specialties. Patients’ perceptions towards presence of medical students during ultrasound examination have not been explored in previous studies which mostly reported positive attitudes in respective specialty.

Methodology: This descriptive cross-sectional study was conducted at Radiology department of University of Lahore teaching hospital (ULTH). Two hundred and forty-two patients who came for ultrasound were interviewed during the month of June 2018 using a structured questionnaire.

Results: Two hundred and forty-two patients had answered all the questions with 100% response rate. The mean age of participants was 32.32 years with 57% of females. Majority were Muslims (94.6%) and 71% educated to secondary / university level. Of the patients interviewed, 62% approved the presence of medical students during ultrasonography. 58.3% of the patients agreed to be examined by students under supervision, while 74.4% refused to scan by medical students in the absence of a doctor. Most of the patients (79.3%) knew their right to approve or disapprove students’ presence. 64.9% of patients preferred scanning by student of same gender and among them 96% were females. Two third of the patients realize that it is important for students to scan patients as part of their training but they allow only minimum number of students (1-3) to be present during ultrasound examination.

Conclusion: In general the patients had positive attitudes to the medical students’ involvement during ultrasonography. This study highlights the variation in patients’ attitudes towards medical students according to gender, educational status, religion of patient and number of students. It is important that students and clinical supervisors should be aware of and respect the perceptions and integrity of patients involved in medical education.

67. Title: Octopus’ Model Of Skills Of A Medical Professional

Introduction: Professional behavior or professionalism refers to the traits that a skilled person must possess in order to be maximally effective. When it comes to a medical professional, professionalism refers to the values and behaviors that connect a health professional to society. Despite of its high significance, a clear model that explains and identifies the required qualities, appears to be lacking.

Methodology: A focus group discussion of 17 final year medical students was conducted under supervision of an experienced moderator. The study comprised of discussion lasting for 90 minutes. Consensus was identified by content analysis and numerical analysis.

Results: Out of 28 competencies identified initially, eight professional competencies were shortlisted which included learning skills, behavioral skills, procedural skills, self-regulation skills, organizational skills, research skills, teaching skills, emotional skills. This resulted in generation of octopus skill model of a medical professional, which would help in better understanding of medical professionalism.

Conclusion: Being generated by medical students, the ‘Octopus’ Model of Skills is expected to give ownership of these eight competencies to all future doctors and may serve as students’ perspective in curriculum development.

68. Title: Emotional Intelligence of Medical Teachers

Introduction: The present study aimed to analyze emotional intelligence of medical teachers of PMC and KE and consider the value of emotional intelligence to medical teaching. Emotional intelligence domains are aware of own emotions, managing own emotions, motivating oneself, Empathy for others, handling relations. Emotional intelligence helps teachers during teaching process to understand the emotions of students and engage them. For teachers, these skills are imperative not only for their personal well-being but to improve student learning.
Methodology: This cross-sectional study was conducted at Poonch Medical College (PMC) and King Edward (KE) Medical University Lahore in July 2018. Ethical Approval was obtained from the Institutional Review Board prior to data collection. Simple random sampling technique was used to collect information from respondents. Ethical considerations like confidentiality and anonymity of study subjects were ensured. Total no of participant was 108 (male=52, female=56, senior faculty=39, junior faculty=69, KE=28, PMC=80). Emotional awareness was assessed using the Emotion Intelligence Questionnaire, is a self-report questionnaire of 50 items rated on a 5-point scale (1 = never apply, 3 = sometimes apply, 5 = always apply) and includes 6 scales: (a) self-awareness, (b) managing emotions (c) motivating oneself (d) empathy (e) social skills.

Results: The results show that the average of self-awareness and social skills in female teachers are higher than male. Male teachers are more consistent and precise in their managing emotions than female teachers in our study. But overall emotional intelligence level in male and female teachers is same, there is no significant difference between genders. By comparing the results of faculty, we conclude that self-awareness, managing emotions and social skills are prominent in junior faculty as compare to senior faculty. Further investigation of results shows that senior faculty is stronger in motivating oneself and are empathic. But there is no significant difference in general emotional intelligence of senior and junior faculty of our study. But the literature shows that emotional intelligence is sophisticated in senior faculty.

Conclusion: In a nutshell, emotional intelligence is important for teachers. Teachers with emotional intelligence adjust to different trials such as stress and aids in true emotional expression, admiration, and civility. Teachers with no emotional intelligence live in confusion, are under continuous frustrations and despair hence find it tough to live with students serenely. The use of emotional intelligence instruments to inform professional growth by identifying areas of strength or weakness for development to improve the quality of teacher social interactions. Hence, the goal of this study is to serve as a pilot to inform future investigations into this possible construct.

69. Title: The Insulting Behavior Of Seniors Toward Their Junior's Doctors

Introduction: Harassment and insulting behavior with junior is a regular phenomenon that happens in various professions, and the medical field. There is evidence that medical college students, training doctors, doctors venture research as well as other different healthcare professionals, inclusive of nurses, suffer from harassment or discouragement. Workplace mistreatment is an important issue due to its negative impact on the health and well-being of affected persons. It has been associated with high ranges of stress, tension, depression, concentration troubles, insecurity and absence of initiative. Individuals who have been bullied have additionally been found to have drastically decrease levels of job satisfaction and have an intention to resign the job.

Methodology: A cross-sectional study was conducted at Nawaz Sharif social security hospital (NSSSH) Lahore during June, 2018. The population included in the study was house officers and medical officers. A convenient sampling size includes one hundred and fifteen which include both males and female, most of them were in age group (21-45). A data was collected by a predesigned, pretested questionnaire survey which was developed after extensive literature review and distributed to medical professionals in their hospitals. Verbal informed consent was taken and confidentiality was ensured.

Results: Total of 115 doctors of Nawaz Sharif Social Security has participated in this study, Male(43.5%), females(56.5%). Ages vary between 20-25 (60%), 35-30 (31.3%) and 30-50 (7.8%). This survey involves house officers (81.7%) and medical officers (17%) approximately 75% of the junior doctors faced the insulting and discouraging behavior of their seniors at their work place. The most common discouraging behavior was unjustified criticism only 15% has only formal complaints. Respondents did not make a complaint against the insulting and discouraging behavior of senior doctors.

Conclusion: Bullying or Insulting behavior is faced by large population of junior doctors in Pakistan. The most common perpetrators of this bullying are consultants. Principal changes are required at national and individual level in Pakistan to solve this problem. To prevent its unwanted consequences in health care system. If the problem persist and no proper step is taken at national level to solve this issue than for sure we are going to face lot of problems at our work place we lost the confidence their working ability, desire to work and to serve their nation with best of their ability. Junior and seniors are colleges so they should respect each other one day the juniors are going to take place of their seniors so the seniors should be the role models for their juniors because junior are going to do the same with the upcoming generation so we should be careful regarding our behaviors with our juniors to provide the good doctors in future.
70. **Title: Neurology-The Mcdreamy Mania Or A Choice Of Sane Minds**

**Introduction:** Neurology is a specialty which encompasses bewildering aspects and perplexed diseases. It is not possible for a general physician to treat such myriads of diseases with highly variable diagnostic techniques and its implications. Being a complex field, neurology is naturally the choice of inquisitive, progressive and intelligent people. This study aims to evaluate the influence of personality traits of future doctors, in choosing Neurology as a career option.

**Methodology:** A cross-sectional survey was conducted amongst 453 medical students and house officers in Islamabad, Pakistan. Using the Big Five Inventory scale, the questionnaire reflected 5 personality traits namely openness, conscientiousness, extroversion, agreeable, and neuroticism. Data was analyzed using SPSSv23. Independent sample t-test was used to compare the personality traits of participants opting for neurology to those choosing other specialties.

**Results:** The mean difference of percentages for conscientiousness was significantly greater for males (p=0.019), whereas for neuroticism it was higher in females (p value=0.000). The means for extroversion and openness were significantly higher in participants opting neurology than those choosing internal medicine; openness also being higher in comparison to all other groups combined. Similarly for neuroticism the mean difference was significant in Dermatology and General surgery as compared to Neurology (p<0.05).

**Conclusion:** In developing countries where subspecialties are still evolving, there is a prodigious void. Neurological disorders contribute to an ever-increasing burden on the healthcare framework which goes unaddressed. Hence a deeper exploration into these intricate personality traits is needed. We recommend installation of career counselling programs addressing specialty choices in medical schools.

71. **Title:** “The Changing Trends Of Dengue Fever Consecutive Outbreaks In A Tertiary Care Hospital”

**Introduction:** Dengue is vector borne disease transmitted by Aedes Aegypti mosquito bite. WHO ranks dengue world’s 17th neglected tropical disease (50 million cases/year; 2.5 million people residing in high risk areas). Pakistan is frequently facing dengue outbreaks during summer and fall seasons despite of awareness campaigns and preventive measures. Current study was conducted while RIHS observed rising number of dengue cases (June 2015-Jan 2017). Study aims to compare hematological and serological profile in subsequent outbreaks. This may lead to measures for better patient care and outcome, to minimize complications and enhance facilities in health care centers as per changing trends of Dengue.

**Methodology:** This descriptive cross sectional study was conducted at Medicine Dept. RIHS (July2015-Jan2017) after ethical approval. Total 130 confirmed adult Dengue fever cases selected from RIHS Dengue isolation wards by convenience sampling. 65 cases included in group A (Jul.2015-Jan.2016) & 65 in group B (Jul.2016-Jan.2017). Pre-existing hematological disorder, ITP, malaria/typhoid co-infection, liver disease & terminally ill cases excluded. Demographic details, clinical findings, hematological counts, dengue serology (Dengue NS-1, IgG & IgM) documented. Data analyzed by SPSS-V21, frequencies calculated for qualitative variables & mean+SD for quantitative variables; Chi-square and student-t tests applied with significant p<0.05.

**Results:** Among 130 cases (71.5% males & 28.55% females), with no significant difference in gender (p=0.846). Mean age was 29.9+10.8 years (group A) vs. 31.7+14 years (group B; p=0.410). Mean symptoms duration 4.7+1.5 days (group A) vs. 3.7+2 days (group B); shorter duration in group B (p=0.003). Fever, vomiting and abdominal pain were comparable (p>0.05), bleeding and myalgia frequent in group B; headache in group A (p<0.05). Group A had 95.4%(DF), 3%(DHF) and 1.5%(DSS) Vs. 80%(DF), 13.8%(DHF) and 6.2%(DSS) in group B (p=0.028). Mean platelet count 48,003+38,030 (group A) vs. 30,170+27,087 (group B; p=0.003). No difference in dengue serological markers (p>0.05).

**Conclusion:** Subsequent dengue outbreaks show increased bleeding tendency, myalgia, thrombocytopenia, higher frequency of DHF and DSS stage presentation as compared to classic DF despite of earlier approach to hospital after symptoms onset. There is need to revisit the screening and management guidelines as per changing trends in subsequent outbreaks. Measures need to be taken regarding awareness campaign, early approach to well-equipped facility, monitoring hematological profile, diagnostic tools and improving patient care in severe forms of dengue i.e. DHF and DSS. Dengue being preventable and treatable disease needs multi-level, systematic and coordinated approach for better outcome.
72. Title: Proportion Of Exposure Of Passive Smoking In Teenage Group And Symptoms Precipitated After Exposure To Second Hand Smoke

Introduction: One-third of the world's adult populations are smokers (47% of these being men, 7% women) and each year, tobacco causes 3.5 million deaths, or about 10,000 deaths each day. It is predicted that in 20 years, this yearly death rate from tobacco use will be more than 10 million people. Second hand smoke (SHS) or passive smoking is defined as 'smoke inhaled by an individual not actively engaged in smoking but due to exposure to ambient tobacco smoke. SHS increases risk of sudden infant death syndrome (SIDS or cot death), middle ear disease, asthma, respiratory disease, lung cancer and coronary heart disease. Hot smoke rises but tobacco smoke cools rapidly which stops its upward climb and starts to descend. A heavy smoker who smokes indoor causes permanent low lying smoke cloud that other house holders have no choice but to breath.

Methodology: Descriptive cross-sectional study was conducted at Army Public School and College, West ridge III, Rawalpindi of 6 months duration (September 2012 till February 2013). There were 3000 students enrolled between the ages of 13 and 19 and sample size was estimated to be 500 using WHO sample size calculator, (with Confidence Level (CL) of 95%, Anticipated population proportion (P) of 0.05 and Absolute precision (d) of 0.02). Systematic random sampling was done. Sample size was the requirement out of 3000 so 3000/500 = 6.

Results: Five hundred students were selected for the study, out of which 279 (55.8%) had exposure to passive smoking while 221 (44.2%) were not exposed to passive smoking. Mean age of the exposed group was 15.06 ± 1.805. There were 132 (47.3%) males and 147 (52.7%) females in the exposed sample. When asked about the relationship who smokes in the exposed group, 87 (31.2%) were fathers, 5 (1.8%) were mothers, 45 (16.1%) were grandparents and 142 (50.9%) were some other relations. Out of the 279, 175 (62.7%) students were exposed to SHS every day, 4 - 6 days per week were 22 (7.9%), 3 days per week were 14 (5.0%) and less than 3 days per week were 68 (24.4%). One hundred and seventy five (62.7%) spend less than 1 hour while 51(18.3%) spend 1 - 2 hours, 28 (10.0%) 3 - 4 hours and 25 (9%) spend more than 4 hours per day. About 189(67.7%) were exposed to 1 - 2 cigarettes, 53 (19.0%) to 3 - 5 cigarettes and 37 (13.3 %) to more than 5 cigarettes per day.

Conclusion: Smoking is a major public problem concern the world over. It is one of the major preventable causes of premature death and disease in the world. Fourteen to seventeen year olds are among a vulnerable group of individuals in society and susceptible to cigarette smoking. The consumption of cigarettes in Pakistan was estimated at 90,000,000,000 cigarettes in 2005. Parent and guardians shall recognize their tactics/ways for decreasing smoking in the home in and keep their children safe for exposure. Health education is very important in building their capacity to make their livings smoke free.

73. Title: Intention & Knowledge Of Fresh Dental Graduates Of Fmh College Of Dentistry Lahore Related To Dental Practice Management

Introduction: The subject of dental practice management transfer knowledge about practical aspect of running a dental practice. Dental practice is getting complex day by day, whereas a dentistry graduate is oblivious of world he is facing after house job. Dental practice management related teaching is neglected aspect mentioned in currently implemented curriculum of baccalaureate of dental surgery. This study explored the fresh graduate's aspiration, teaching and knowledge of fresh graduates related to dental practice management.

Methodology: The study was quantitative, descriptive type and was conducted at FMH College of medicine & dentistry, Shadman, Lahore. All fresh graduates were asked to fill a proforma devised to investigate intention, teaching and knowledge related to practice management. The proforma was divided into three blocks, first block was related to fresh graduate intention related to future dental practice, second block was about teaching of practice management and third section tested knowledge of fresh graduate related to dental practice management.

Results: The proforma was distributed to all sixty two fresh graduates and response rate was about eighty percent. Majority of respondents were females (n=37), they wish to join clinical fields (n=42), want to start full time practice (n=31) but more than half (n=21) think they are not ready to run dental practice. Teaching of dental practice management was neglected aspect according to majority of respondents (n=28) and they want more time is allocated for teaching of dental practice management. The knowledge related to various aspect of dental practice management varies among fresh graduates, the legal and financial
Conclusion: Fresh graduates have not been taught dental practice management. There is no statistically significant difference in knowledge of graduates who think they are ready for private practice from those who think they are unprepared for private practice.

74. Title: Improving Work Force In Health Sector: A Survey On Motivation Of Medical Graduates And Residents On Willingness To Practice In Rural Community

Introduction: Future career choice to practice in rural community is influenced by a large number of factors but motivation is the key intention factor in the working life span of doctors that plays an important role in attraction, recruitment and retention of medical graduates for rural practice.

Research problem: Lack of motivation of medical graduate to decide about their career choice to practice in rural community is a major problem faced by Pakistan and low and middle income countries. Purpose is to determine the intention of medical graduates and residents on willingness to practice in rural community and to identify factors that influence their motivation.

Methodology: Research Design: Quantitative study: Descriptive, Cross sectional Study

Site: Sharif Medical and Dental College, Lady Willingdon Hospital and Nawaz Sharif medical college Gujrat in June 2018, Sample size: 225, Sampling technique: Non probability convenient quota sampling, Data collection technique: Pre tested Questionnaire

Results: 240 medical graduates and house officers participated in study. Out of which 159 (66.3%) medical graduates showed positive response for willingness to practice in rural community with 47% degree of intention for likely to work in rural community. Response was more marked in fourth year students as compared to final year medical graduates and house officers. Motivating factors for rural placement include were less experience health care professionals 78 (32.5%), exposure to wide spectrum of disease 72 (30.3%) and 101 (42.1%) that rural placement provide opportunity to deal with community health problems while external motivating factor were financial incentive 68 (28.6%), and selection policy 90 (37.8%).

Conclusion: Motivation is the key determinant in working life span strategy and is effected by large number of factors both intrinsic and extrinsic. Both internal and external motivation predicts future career choices of doctors for rural placement. So appropriate planning, refinement in educational programs, remuneration in form of financial incentive, initiation of scholarship schemes and mandatory rotations to serve in rural area, effective support of health system, and job safety in addition to selection policy at induction of training program remove major obstacle in shortage of workforce in health sector.

75. Title: Building the first Primary Immune Deficiency Diseases Institute in Pakistan.

Introduction: Primary immunodeficiency’s (PIDs) are a widely heterogeneous group of inherited defects of the immune system consisting of at least 350 underlying genetic deficits currently known. Patients with PIDs can present with, or develop recurrent and chronic infection, often by multiple microbes but also sometimes by a single pathogen, as increasingly recognized. The number of PIDs is expected to grow exponentially in the coming years. Pakistan has a population of 200 million and documented highest consanguinity in the world. Yet for a population this size we have very few reports of PIDs from Pakistan in the literature.

Methodology: The ten warning signs of primary immune deficiency are well-known and well cited. They were included as a part of the questionnaire given to physicians. Other questions related to PIDs were included as well. This was a cross sectional study. Random physicians were approached from different tertiary care medical colleges and the attached hospitals in Pakistan. Physicians were asked to fill out the aforementioned questionnaires. All medical graduates from a recognized medical college in Pakistan and currently practicing were eligible to take part in the study.

Results: A total of 141 Health Care providers took part in the survey, from four major medical colleges. About 55% of the participants had not seen any patients with PID. 86% were not aware of the 10 warning signs of PID and 97% were not familiar with PIDs family history. About 50% did not offer any treatments to their patients with PID. 61% thought that PID patients are always seriously ill. 84% thought that patients with PID should not receive any live vaccines. Lastly, 55% of those interviewed did not know where to refer a patient with PID.
Conclusion: Pakistan is in desperate need of a proper PIDs institute for the prevention, recognition and management of PIDs. A registry also needs to be established. Research done in Pakistan in the field of PIDs is expected to have major global impact towards our understanding of these complex and multisystem diseases.

76. Title: Perceptions Of The Strabismus Among The Age Of 11-16 Years Old School Children

Introduction: Education is the key and a prerequisite for health. However, education cannot achieve its potential if young people do not attend school because of poor health and related conditions. Ocular misalignment (Strabismus) is one of the major reasons of refractive error in children. Studies have proved that Surgery to improve ocular alignment appears to herald major improvements in the quality of psychosocial functioning for the majority of adults.

Methodology: DESIGN: qualitative, descriptive, cross sectional, survey study.
Methods and materials: This study was conducted in Abbottabad district of KPK, Pakistan. Data collections were started from four schools in the month of August 2012, with equal representation of boys and girls. To increase trustworthiness of the data, schools were chosen from both government and private sectors. Two different instruments of the qualitative research i.e. semi structured interview and focus group discussion were used to collect the data. Four students, for semi-structured interviews and six students for focus group discussion from age 11 to 16 no gender restrictions were conveniently chosen with help from teachers, fifty percent participants were wearing spectacles for refractive errors of vision.

Results: The main findings of this study were encouraging to note that the students had some understanding about refractive errors particularly about Squint in eyes. According to our study, Ocular misalignment has negative effect on life including education and marriage especially in case of girls as most of affected children feel ashamed of having squint.

Conclusion: Increasing awareness and education in the community, especially addresses the social and cultural sides of the refractive errors is very important. The school setting offer good opportunities for implementation of health education programmes. These 11 to 16 years older children can be part of child-to-child health promotion package to help and look after the younger one. Adopting a holistic approach in providing health facilities, which apart from other aspects addresses the cultural, social and economic factor, is needed. This study provides baseline data on the perceptions of squint among 11 to 16 years older school children. This data can be helpful in designing appropriate eye health education programme for school children and teachers.

77. Title: Effect Of Estrogen Receptor Alpha Genes Variants On Severity Of Breast Cancer

Introduction: Reproductive factors pose a risk for sporadic breast cancer (BC) development owing to the lifetime exposure to estrogen, a hormone responsible for cell proliferation in the breast. The variants of the estrogen receptor (ER) alpha gene have reportedly been associated with BC risk in numerous populations. The objective of the study was to determine whether the risk and severity of sporadic BC were associated with the rs2228480 and rs3020314 (ESR1) variants in a Pakistani population.

Methodology: A total of ninety DNA samples from sporadic BC patients were studied. These samples were subsequently genotyped by Pyrosequencing. Later, the epidemiological, clinical, and reproductive factors were analyzed. Statistical tests conducted included the χ 2 test, Fisher’s exact test, s exact test, and Mann-Whitney and Kruskal-Wallis tests or their parametric equivalents.

Results: There was a high frequency of the rs2228480*GG genotype among the ER-positive tumors (OR = 2.13; 95% CI = 1.189–3.816) and it underlined minor association with clinical stage 0 (OR = 0.324; 95% CI = 0.116–0.904). The rs2228480*GA genotype was associated with minor ER expression, whereas rs2228480*GG was associated with high expression of the progesterone receptor (PR). The frequency of rs3020314*CC was high among women who breastfed (OR=2.11; 95% CI=1.203–3.702), and it showed high association with clinical stage 0 (OR=4.383; 95% CI=1.606–11.96) whereas it had minor association with systemic arterial hypertension (OR = 0.53; 95% CI = 0.319–0.880).

Conclusion: The rs2228480 and rs3020314 variants did not alter sporadic BC risk, but they did modulate the BC severity
78. Title: Level Of Stress In Students Of A Private Medical College In Lahore, Pakistan

Introduction: Medical education is quite demanding both physically and emotionally (Radcliffe & Lester, 2003). A medical student is required to work hard to cover the extensive course material. They have to remember a large amount of material in order to pass the exams. They spend up to 7 hours a day in the medical college, where they have to attend lectures, practical and small group discussions within the college premises, and when they are taken to the hospital for the early clinical exposure, they have to interact with the patients, take history from them and practice their clinical skills on them. Medical students often report being tired.

Methodology: The Medical student stressor questionnaire (MSSQ), which is a validated questionnaire, was used in a descriptive cross-sectional study to assess the various stressor that a medical student deals with in academic life at the University College of Medicine (UCM) at University of Lahore (UOL). The questionnaire was made available on google forms and the link was shared with the students on MOODLE. Participation was voluntary. All the students enrolled in the first and second and third year MBBS classes at UCM were included in the study. The students of fourth and final year MBBS classes at UCM were excluded from the study. The questionnaire has 20 questions that determine the academic, interpersonal & intrapersonal, teaching and learning, social, drive and desire, and group activities related stressors. The students were asked to provide data related to their gender, study and physical activity routine and family and social support. The data was analyzed using SPSS software version 23.

Results: On the MSSQ, second- and third-year students reported being most stressed by the academic related stressors, while the drive and desire related stressors were rated as causing mild to moderate stress. Interpersonal and intrapersonal related stressors along with teaching and learning related stressors and group activity related stressors and social related stressors were rated as causing moderate stress.

First year MBBS students rated the teaching and learning related stressors to be the most stressful four them, followed by academic related stressors, interpersonal related stressors and social related stressors. They rated drive and desire related stressors to be causing mild stress. Group activities related stressors were rated as least stressful by the first year MBBS students as compared to the second- and third-year students.

Conclusions: First, second- and third-year students rated academic related stressors and teaching and learning related stressors as being most stressful. Measures should be taken to make the learning environment less stressful for them.

79. Title: Gestational Diabetes Mellitus Is Still A Great Problem

Introduction: Gestational Diabetes Mellitus (GDM) refers to diabetes that develops in the course of pregnancy and remits following delivery. It is defined as the appearance of hyperglycemia in a pregnant woman previously not known to be diabetic. It predicts risk for overt diabetes in women1, 2. GDM affects the health of pregnant women and infants. About 3-10% of all pregnancies are complicated by diabetes. Annually 21 million of the world (7% of the population) is reported4. It is more common in developing countries including India and Pakistan. The increasing prevalence in developing countries is related to decreasing levels of physical activity, changes in dietary patterns and increasing prevalence of obesity. In Pakistan it is difficult to predict any uniform prevalence levels because of wide differences in living conditions, socio-economic levels and dietary habits.

Methodology: This was a prospective/descriptive hospital based study conducted at a tertiary care hospital Hyderabad from September 2014 to November 2014. Total 168 pregnant females between the ages 20-40 years & in their 24th to 28th week of gestation were enrolled for the study. The ladies were asked to come in the morning with an overnight fast of 10-12 hours for Oral Glucose Tolerance Test (OGTT). All these pregnant ladies were offered 75 gm of glucose D dissolved in 100 ml of plain water. After two hours, blood sample was collected. The glucose value exceeding 140mg/dl was declared as a case of GDM.

Results: A total of 168 women were enrolled GDM was diagnosed in 25(14.8%) women. Most of the participants were below 26 years of age [47(27.9%)] and highest number of participants were in the age group 20-25 years so the prevalence rate was higher in this group. The mean age of participants was 30.2±5.83The prevalence rate of gestational diabetes mellitus was higher in women with age group 31-35 years (36%). Majority of the patients with GDM were 3rd and 4thgravidas (32%) and multipara (40%) out of 27 cases of GDM. Twenty seven women (16%) women had family history of diabetes mellitus. Among this 12/27 (44.4%) women were found obese, out of these 14 women, 8 (57%) women
Conclusion: The present study reports 14.8% prevalence of GDM from a tertiary care hospital of Hyderabad. A significant higher incidence of GDM was present in females who are aged, multiparous, and overweight & have relative's history of diabetes mellitus. This study emphasized the necessity for GDM screening in our population because the number of medium/high risk population for GDM was high & ought to be assessed after proper risk stratifications. So it is concluded that early screening of pregnant females gives an early diagnosis of GDM & it is the necessity of an hour.

80. Title: Mutational Spectrum Of Cyp1b1 In Pakistani Families Affected With Primary Congenital Glaucoma

Introduction: Glaucoma is the second prominent cause of impaired vision, in global world. Over 60 million individuals are presently affected all over the world and 12 million are sightless because of glaucoma. Primary congenital glaucoma (PCG) is frequently occurs in childhood and lead to blindness during newborn or in very young children. PCG, is describe by structural defect in the trabecular meshwork and beginning of disease in newborn or very young age period before three years. It is most prevalent in populations with high rates of consanguineous marriages. The main gene involved in PCG is CYP1B1 that is located on GLC3A.

Methodology: Two PCG affected clinically well-characterized consanguineous families were studied. Genomic DNA was extracted from EDTA blood samples through "QIAGEN" extraction kit. Primers were specifically designed for amplification of CYP1B1 gene. Amplification was performed on Thermal Cycler ABI I9700. The sequencing reactions were performed on an automated ABI PRISM® 310 Genetic Analyzer, and analyzed in control subjects and patients to identify the disease-causing mutations.

Results: Analysis of four PCG affected members from two families showed homozygous variations in CYP1B1 including one pathogenic missense i.e. p.R390H, and two SNPs one synonymous D449D and one missense N453S were identified in both families. Different bioinformatics tools such as Polyphene 2, SIFT, VEP and VEST were used to evaluate the pathogenic effect of missense mutation. Multiple sequence alignment of CYP1B1 protein from various species was performed using ClustalW2.1. And it was observed that Arginine at 390 positions is conserved in all species. A mutation molecular 3D structure was also generated using I-TASEER protein modeling server to determine intra-molecular changes which leads to deleterious effect.

Conclusion: Major cause of PCG is mutation in CYP1B1 gene. The clinical significance, among the relatives of primary congenital glaucoma is to identify the risk of developing glaucoma. In family cases, these mutations will be helpful in decreasing the syndrome rate. These investigations will give us advantage to identify the mutations in pathogenesis in different people and will allow us to improve simple and rapid diagnostic test for analyzing such cases.

81. Title: Patient’s Perception Analysis; A Tool to Enhance Service Quality of Dental Care

Introduction: Now-a-days health care service is a word of mouth to enhance service quality. Patient's perception plays a key role as it determines the degree of patient's satisfaction. Evaluation of dental service quality sheds more light on relationship between service quality and patients satisfaction in health care setting. The aim of present study is to determine patient-dentist relationship and to explore the elements which are responsible for the GAP between patient’s perception and satisfaction.

Methodology: A cross-sectional survey was conducted using validated questionnaire among patients attending out-patient Department of University Dental Hospital, University of Lahore over a period of 3 months. The questionnaire was designed according to Donabedian and SERVQUAL models of service quality assessment. A total of 200 questionnaires were selected for the study based upon study criteria.

Results: Overall patients were satisfied /agreed with the elements of 3 major Domains; Structure, Process, Outcome. Highest percentage of positive responses was obtained in Process domain (67%). In Structure Domain the agreed responses regarding hospital facilities outnumbered the other elements (59.5%). In Outcome Domain overall perception fell into satisfied category (58.5%). Consideration of professionalism, interaction, reactivity and administration was also expressed.
Conclusion: Present study provided a conceptual framework to analyze patient's perception and satisfaction in dental care. Therefore, a diagnostic tool was developed to assess dental service quality and to discover the areas that needs improvement.

82. Title: Predatory Journals and bogus Publications! Academic scams of the 21st century

Introduction: The traditional publishing of printing journal articles has undergone a paradigm shift in the last two decades with the emergence of an open access model, which allows researchers all around the globe to access research without barriers and to increase the impact of their hard work. At the same time another model of publishing based on academic exploitation of authors and researches has emerged termed as “Predatory Publications and Journals” The aims of this presentation are to highlight the threat of predatory publishing and to discuss guidelines to detect and avoid predatory journals

Methodology: Academic publishing has undergone a paradigm shift in the 21st century and the open access (OA) model has gained momentum. This has helped disseminate knowledge to a wider audience. Unfortunately, some groups and individuals have exploited this situation to launch online journals of reputable credibility called predatory journals. Predatory publishing refers specifically to publishing practices which exploit the author-pays model by “setting up bogus publishing operations and tricking authors into thinking that they are legitimate scholarly publishing outlets”. These journals or publishers abuse the open-access publishing model and are interested in money making rather than disseminating research

Results: Both young and experienced researchers have been duped by the predatory journals which are now in thousands. They are characterized by a very rapid publishing without any formal and transparent peer review process, lack of qualified editorial board members and false address. They mostly operate from India, China and Nigeria. Guidelines have been issued and websites like (www.thinkchecksubmit.org) offer resources to detect predatory journals.

Conclusion: A collaborative effort from all stake holders (Professional and academic organizations, medical institutes, authors and editors) is required to increase the awareness regarding the rising menace of predatory and unethical publishing. The future fight against the predatory publishing will be long and should employed multi-pronged strategies. Some of the winning strategies can be training the future researchers, academics and students; implementing strict and clear rules regarding publishing, and financially supporting researchers from the developing countries

83. Title: Knowledge Assessment regarding Medical Ethics among Final Year Medical Students in Rawalpindi-Islamabad Pakistan.

Introduction: Medical ethics is essential subject of medical training in majority of the developed countries but in Pakistan still neglected as a core subject. Clinical skills without ethics are not enough to resolve health problems. The medical graduates come across ethical issues during their practice, but are they prepared to resolve the ethical dilemmas they met in daily practice. The objectives of the study was, to determine Knowledge regarding medical ethics among Final year medical students of Rawalpindi-Islamabad.

Methodology: A descriptive cross-sectional study was designed based on validated well-structured comprehensive questionnaire. Stratified random sampling technique was used to collect data.

Results: Out of 384 questionnaires, 314 were received back completely, depicting a response rate of 81.77 percent. Analysis was performed using SPSS 21. Among responsive study participants 26% were male and 74% were female. The results of the study revealed that about 82% of the participants were aware of Subject Medical Ethics but never studied as a core subject in class. Around one third of them were not aware of National Bioethics Committee of Pakistan. Ninety five Percent participants replied that they follow Pakistan medical and Dental council Code of ethics. All of the respondents agreed on need of medical ethics as a subject in medical education.

Conclusion: The knowledge of medical ethics by Final year students is up to mark but needs improvement by continuous medical education. The inclusion of medical ethics as a subject in graduate and post graduate teaching is need of time where not yet included.

Keywords: Knowledge, Medical Ethics, Final year Medical Students, Rawalpindi, Islamabad