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Journal of Islamic International Medical College

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PLENARY SESSIONS

Plenary Session 01:

Title: The changing role of the student in the health professions

Ronald M Harden

Abstract: There are dramatic changes taking place in education in the health professions with integrated authentic curricula, new teaching approaches including the use of technology, and developments in assessment. The changing role of the teacher has been described (Harden and Lilley 2018). This presentation looks at the changing role of the student. There is a move from the student as a client, from the student as a customer or consumer to the student as a partner in the education programme.

As an information processor there is a switch of emphasis for the student from just-in-case learning and the memorising of facts to just-in-time learning with the student having the ability to ask the right question, to identify sources of information, and to evaluate the answers. There is a move to directed self-learning with the student facilitating their own learning.

Students are increasingly engaged with the curriculum planning and delivery, serving on the curriculum committee and engaging in peer teaching. Students will be encouraged to serve as self and peer assessors, assessing their own competence and that of their peers. Role models are important with students trained to identify the features of good and bad role models. Students will contribute to decisions about management of the education programme and to the implementation of aspects of it. They will develop skills in education and will reflect on their learning and on the teaching and will evaluate the curriculum. Development of their professional identity will include professionalism and

acceptance of the need for life-long learning. This changing role of the student is not just a dream for the future but is already becoming a reality.

Plenary Session 02:

Title: Achieving our Outcomes: Aligning Curriculum and Assessment in Medical Education

M. Brownell Anderson

Abstract: Medical schools and faculty invest tremendous resources to educate future physicians. Every educational program has defined outcomes and a curriculum to achieve those outcomes, but how can we be certain we are assessing the outcomes we have defined for the students? Ultimately, assessment is about communication and influences curriculum development. If we agree that assessment serves many purposes including: feedback to students; setting standards (summative assessment); rank ordering/benchmarking/grading; motivation for students; quality control for the public; evaluating teaching; and evaluating the curriculum, how might medical educators approach the challenge of improving medical education through assessment?

Plenary Session 03:

Title: Leading organizational cultural change during health professions education reforms

Hossam Hamdy

Abstract: Medical education is a complex type of education. It is inseparable from the health care system, embedded in the culture of two organizations, education and health care. In the 21st century, changes have been rapidly influenced by many disruptive forces, demographic, technology etc. These changes have affected all aspects of our life including major culture changes in Healthcare and Health Professions Educational organizations.

Changing existing organization culture is difficult. It is a “Wicked problem”.

This presentation focuses on experience in changing organizational culture over the last 40 years in four universities public and private in the Middle East.

It links organizational culture and modern leadership theories to practice. Reflecting on the future of medical education and leadership roles in a rapidly changing world of Healthcare and education.

Plenary Session 04:

Title: Justified entrustment with health care tasks: the ultimate goal of medical education

Olle ten Cate

Abstract: Entrustable professional activities (EPAs) have become a popular approach to workplace learning and assessment in medical education. They are the units of professional practice that clinicians are trusted to do as daily work and were conceived with the purpose to fill a gap between the elaborate competency-frameworks and the everyday practice of clinical health care, i.e. the context of clinical training. EPAs may seem just a new method or framework. However, the potential significance of using EPAs is much wider.

- EPAs are useful for learners to clarify what tasks HP trainees must be able to do at the end of training (a postgraduate or undergraduate program, a year, a rotation), at a designated level of

supervision. It provides a road map for training in the clinical workplace

- EPAs are useful for clinical educators, curriculum developers and even professional organizations. Defining EPAs is much more than applying a tool. It often is redefining a profession in very practical terms.
- EPAs are meant to serve quality and safety in patient care that is provided, both during and after training. By determining a level of supervision that learners require and by certifying learners after adequate assessment, both learners, supervisors, HP colleagues and patients should have (more) clarity about what trainees should do and should be allowed to do
- EPAs can bridge boundaries across components of an educational continuum (such as undergraduate and postgraduate training) and between siloed clinical disciplines
- EPAs can serve the maintenance of competence. Certification may drop after a period non-use of skills; and new EPAs may be added after training, to establish a dynamic portfolio of valid EPAs, reflecting clinical competence at any time

The ultimate goal of medical training is to have a health care system in which collaborators, patients and the public can have a justified trust that doctors will perform well.



SYMPOSIUM

SYMPOSIUM 1: Student Assessment

Title: A fresh look at Miller's pyramid: Assessment at the 'Is' and 'Do' level

Mohamed Al-Eraky

Institute: Imam Abdulrehman Bin Faisal (ex.Dammam) University Saudi Arabia

Abstract:

Can anyone be a doctor, a soldier or an artist? What are the personal assets and merits for each career that need to be explored early on? There's a growing literature that acknowledge the value of assessment of personal qualities in medical education. The current assessment systems measure what an individual medical student Knows, Shows and Does, as per the iconic assessment framework of George Miller. Yet, with the increasingly sophisticated practice of assessment, can Miller's pyramid fulfill the unmet needs of assessors to measure those evolving constructs in health professions education? This talk presents a fresh look at Miller's pyramid and advocate a novel framework: 'Assessment Orbits' that incorporates new dimensions of assessment, particularly related to personal qualities and collaborative work. Literature identifies more than 80 different personal qualities relevant to the practice of medicine. First, we need to shortlist the most salient and measurable qualities, bearing in mind that some can be taught or acquired in the process of socialization across the continuum of medical education, while others are not. Then a comprehensive assessment system has to be developed using valid and cost-effective tools to measure those qualities on admission and again on specialization. This has to be supplemented with a strong coaching and mentoring program for both assessors and students. In short, we need a more robust triage-like (as in emergency) admission system

to screen medical school applicants and filter not only those who wish, but also those who can be (good) doctors.

Title: Current assessment systems in Pakistan and their challenges

Junaid Sarfraz

Institute: CMH, Lahore

Abstract:

The talk focuses on the assessment systems currently in practice in Medical Education in Pakistan and the challenges not just in their implementation and quality assurance but also inherent challenges of lack of alignment between learning objectives / outcomes and assessment blue-prints, the lack in alignment of assessment with teaching methodologies, the role of the hidden curriculum in undermining effective assessment and a lack of use of technology and standard setting techniques to ensure high fidelity assessment. Absence of qualified staff and functional departments of medical education in most institutions contribute to these challenges. The competitive race for better results not necessarily the result of better education compounds these challenges. This talk shall set the stage for the presentations by experts following this who shall shed light on how to overcome these challenges.

Title: Comparing Pakistani Assessment system to the International standards (WFME, GMC etc) Where we stand today?

Muhammad Tariq

Institute: Aga Khan University, Karachi

Abstract:

"Assessment plays a central role in medical education as no curriculum is complete without a well-structured assessment system in place. Assessment is multifaceted, which drives and stimulates learning. It incorporates testing, measuring, collecting, combining information and providing feedback. The

assessment criteria provide framework and the basis for judgments or decisions. (Norcini et al., 2011). Over the past decade various innovative efforts and measures are done to enhance the quality of assessment in medical education to make it more accurate, reliable, and timely (Epstein, 2007). Assessment for learning as compared to assessment of learning is emphasized in recent literature (Schuwirth & Van der Vleuten, 2011). Assessment for learning is an approach in which the assessment process is embedded within the educational process to guide and promote the learning of each individual learner to the maximum of his/her ability (Epstein, 2007; Schuwirth & van der Vleuten, 2011). As per Norcini et al, (2011), development of wide range of assessment instruments and methods directed towards different dimensions of competency, application and development of new teaching and learning approaches, enhanced quality and sophistication of psychometrics and its application and the growing use of computers in assessment have been major developments in assessment over the past 50 years. Are we keeping pace with the international standards on assessment in Pakistan? What should be the way forward?"

Title: Solutions to the Challenges of Assessment

Syed Moyn Aly

Institute: Jinnah Sindh Medical University

Abstract:

The talk focuses on solution to assessment problems faced in undergraduate and graduate examinations in Pakistan. The presenter will brief the audience about how departments of medical education can play a key role by working in collaboration with examination departments. These DMEs should help subject experts develop tables of

specifications, map assessment against outcomes, ensure construct validity and improve the authenticity of results by developing results based on post exam analyses. Technology can be used to augment the process of assessment, thereby supporting fair decision making. Pakistan needs to start working towards a system of standard setting. The obtained cut off score can easily be calibrated to match the university requirements. Constant faculty development and empowerment in improving the assessment process is an absolute necessity. The talk will also focus on helping students learn how to attempt an examination; student development is as important as faculty development. Formative assessment is such a great help in improving learning. This must be instituted to help promote learning. Research in assessment is needed so that decision makers can rely on local authentic data instead of depending on decisions made in alien context.

SYMPOSIUM 2: Role of Islamic Ethics in Health Professional Education

Title: Role of Islamic Ethical Principles in Medical Education

Anis Ahmed

Institute: Riphah International University, Islamabad

Abstract:

Most of medical schools established after creation of Pakistan inherited conventional curriculum used in the Sub-continent. However, with change of time and development in medical education it was noticed that certain important areas were not given their due place. Medical ethics has been one such area. During past three decades, a global awareness on medical ethics has emerged. In the specific case of Riphah International University the very mission

statement refers to “Inculcation of Islamic ethical values” in curriculum and co-curricular activities. Islamic ethics principles are not faith specific but carry universal application. Protection and promotion of life, protection of dignity and honor of all human beings and confidentiality are some of these universal foundational principles of Islamic ethics. The university's objective is to produce holistic personality of our graduates which is only possible when ethical principles are inculcated in not only curriculum and teaching methodology but are fully reflected in the personality of student and academic environment. This presentation makes an effort to highlight universal Islamic ethical values which help in building holistic personality of a medical professional. The presentation recommends intellectual as well as applied dimensions of this objective.

Title: How to teach Islamic medical ethics in medical school?

Najib ul Haq

Institute: Peshawar Medical College

Abstract:

Islamic is not a religion in its traditional meaning but is a Deen i.e. a complete code of life. It has two primary components i.e. rights of Allah and rights of human beings. The second part includes the rights of both Muslims and Non Muslims. There are two views about role of religion/spirituality in Health care and Medical Education. One considers medical care and medical education as “value neutral” with more or less no role of religion, while others consider it important to incorporate religion/belief. In spite of this basic difference there is general agreement to adopt a “culture sensitive” approach and care for the beliefs of patients.

Acquiring knowledge (Ilm) is obligatory on all Muslim. Elaborating this Hadith Islamic

scholars have explained that attaining knowledge about four components is obligatory for all Muslims i.e. Faith, Worships, Basic human right and practicing one's profession in line with Islamic principles. It is therefore obligatory for Muslim physician to practice their profession in line with Shariah guidance.

Medical Education and Health care system:

The quality of health care of a country reflects its medical education system. The quality of Medical Education cannot be better than the quality of its teachers. The graduate must be professionally and ethically competent. To achieve this objective it is imperative that the teachers are well versed with knowledge and skills and trained on teaching Islamic ethics.

The Islamic ethics can be divided in two major parts;

1. The first part relates directly to Islamic Faith and includes;
a. Subjects related to Faith with implication on Medicine / Medical Ethics e.g. Tauheed, Akhirah and Risalat etc.
b. Common but specific issues of Muslims (including patients and doctors) e.g. the concept of allowed (Halal) and forbidden (Haram), Fasting (Ramadhan), Salah (prayers) and Taharah (the minimum required cleanliness before an act of worship) etc
2. The second part relates to areas that are shared with medical subjects,
a. Topic where Islamic ethics may also be incorporated e.g. confidentiality, consent, autonomy, communication skill, abortion, organ transplant and doctor Pharma relations, end of life care and genetics research etc.
b. Purely medical subject where incorporation of relevant Islamic value / notion may also be incorporated e.g. prescribing for peptic ulcer and its relevance to fasting / Ramadhan or

ponder on excellence in Allah's creation while describing some points like action potential and structure of DNA etc. This will strengthen the overall concept of faith / Islamic ethics. The Islamic ethics may be taught at two levels. The first part may be taught primarily in the foundation years and the second part later (clinical years). Two methodologies may be used to teach these subjects

A- As independent subjects - e.g. subjects mentioned in 1

B- As part of medical subjects - e.g. subjects mentioned in 2

Any "Teaching Learning Method" may be used to teach Islamic ethics and these include LGF, SGDs, PBL, CBS and Bed side teaching. Few examples are; Faith related subjects like Tauheed – (I am being watched by Allah) and the concept of Akhirah – (accountability for all deeds) may be taught in LGF. Internalization of these two concepts can make a real difference in one's life and attitude towards others including the patients. Issues of fasting (Soam) may be discussed and taught in SGD and Bedside teaching while discussing peptic ulcer or renal failure. The opportunity may also be utilized for value of life in Islam. Halal and Haram – Issues like doctor-pharmaceutical relations and abortion, organ transplant and "exposure of private parts of the body in case of necessity" may be discussed in PBL, Bed side clinical teaching and CBS. All these areas may be evaluated in OSCE, SEQs and MCQs etc.

Title: Learning and Teaching of Islamic Medical Ethics

Muhammad Iqbal Khan

Institute: Shifa Tameer-e-Millat University, Islamabad

Abstract:

The paucity of virtuous physicians is strongly

felt in the modern world. This is due to dwindling professional conducts in medical practice. Learning and teachings of medical ethics is decisive for preferred behavior of medics. Empathy and passion for excellent comportment can only become a lifestyle, if profession of medicine is living up to its own standards and expectations. Therefore, learning and teaching of medical ethics is mandatory at undergraduate and graduate level medical education. Though Professionalism and ethics were very recently introduced in the curricula of the medical sciences, but is becoming an important part of medic's life today. Traditionally medical ethics remained a part of hidden curriculum and was learnt through apprenticeship model and passively taught by role models & mentors. Several studies revealed, there is no single, best modality for learning and teaching medical ethics. Literature lacks, an integrated model of teaching medical ethics, despite, several studies revealed, that ethical practices are crucial for provision of finest quality health care. Literature also revealed the student's profound enthusiasm in learning ethical values in medical practice. A contextual medical curriculum must be addressing the needs of learner and bridging of gaps in knowledge, skills and behaviors and devise mechanism for effective learning to achieve intended learning outcomes. Medical Ethics, being considered as one of the basic competence in health care management system, involves the understanding and execution of ethical dilemmas in a passable, virtuously responsible manner.

Islamic medical ethics refers to Islamic guidance on ethical and moral issues related to medical practice and research. Islamic teachings hold that ethics and morality cannot be separated, rather Islamic jurisprudence is compendium of ethical legal principles. Islamic

medical ethics complements the secular ethical values rather it strongly empowers the learner with effective learning tools and necessary characteristics of a virtuous physician.

As ethics are essential components of Islamic practice as emphasized at various places in the primary sources (Quran & Sunnah) like: "And surely you have sublime (Great) morals" and "You are the best of peoples, evolved for mankind, enjoining what is right, forbidding what is wrong and believing in Allah". Also hadith "The believers whose faith is most perfect are those who have the best character". The desired personality depicted in Quran and Sunnah were exemplified by the Prophet of Islam human trait par excellence and are characters of any Muslim physician. The ethical values and professional characters being taught and evaluated in a modern medical institution must reflect the conduct of the Prophet Mohammad (PUH). The guiding principles are: Protection of an individual's freedom of belief, Protection and maintenance of life, preservation of honor, integrity and property, maintaining the intellect and preservation of progeny.

Title: Islamic Principles of Ethics and their comparison with Western Principles.

Idrees Anwar

Institute: Rawalpindi Medical University

Abstract:

Medical ethics is a system of moral principles that apply values and judgments to the practice of medicine. Medical ethics delves at our everyday behavior in patient care, research and evaluates whether these behaviors are in accordance with moral and ethical principles. We assess our actions in terms of being morally and ethically correct or incorrect, fair or unfair. These principles are formulated by our social, cultural and religious values. Since values vary

from place to place and at times, from person to person thus it is crucial to make exact judgment therefore we have to rely on our own conscience. In western literature the key principles of ethics are;

1. Autonomy (Voluntas aegroti suprema lex).
2. Beneficence (Salus aegroti suprema lex).
3. Non-maleficence & "first, do no harm" (primum non nocere).
4. Justice (fairness and equality).
5. Dignity (Respect for person).
6. Truthfulness and honesty (the concept of informed consent).

On the other hand "Islam" is Ethics. It is an embodiment of ethics and righteousness. It encompasses a set of demeanors that safeguards the welfare of not only individuals, but also of whole society. The principles of Islamic ethics are adopted from extensive literature search from Quran and Hadith. Islamic ethics defined as "good character," started with Prophet Hood of Muhammad ﷺ. It is based on Quranic teachings, the teachings of the Sunnah of Muhammad, the precedents of Islamic jurists (see Sharia and Fiqh).

The principals of Islamic ethics are;

1. Taqwa (fear of Allah)
2. Haddood Allah (limits of Allah)
3. Haqooq ul ebad (rights of people)
4. Ahsan (Perfection or excellence)
5. Adal (justice)
6. Ikhaq e husna (nice manners)
7. Ikhlas (sincerity)
8. Ayadat (visit the Sick)

These principals have not been transcribed from any source but are the result of my untiring efforts as a novice of ethics and professionalism. This study not only describes these principles which are very close to our social, cultural, and religious beliefs but also compares the two systems of ethics with a quick review of historical perspectives.

Symposium 3: Continuing Professional Development

Title: The need for developing a national continuing professional development programme for doctors in Pakistan

Gohar Wajid

Institute: World Health Organization EMRO-Cairo

Abstract:

Medical doctors get their professional certifications, after meeting minimum criteria established by their respective national regulatory bodies. Continuing advancements in their fields of specializations require that the regulatory bodies and professional associations develop formal mechanisms to ensure that the minimum competencies of medical doctors are maintained at all times. If the doctors are not provided with opportunities to update their knowledge and skills, it is likely that they will not be able to transfer the benefits of advancements in medicine to the population they serve. Hence, there is a global consensus on the need for Continuing Professional Development (CPD), of the professional development of all health professionals.

Many countries have already introduced formal CPD programmes, with few even introducing it as prerequisite for recertification. Although, CPD has always existed in Pakistan, as an informal entity with primary educational responsibility on the user, there is increasing realization that the system should be introduced formally. Traditional approaches of CPD based on voluntary self-learning and self-assessment have proved inadequate and ineffective; they often do not cover the demands of a changing practice. As such, an organized and well-regulated system of lifelong learning must be developed. The best available evidence suggests that effective CPD is characterized by the presence of: (a) a

clear need or reason for the particular CPD activities to be undertaken; (b) learning based on such an identified need or reason and; (c) follow up CPD activities to reinforce the learning accomplished.

There have been several attempts by the PMDC in the past to introduce formal CPD programmes for medical doctors, with limited success. This presents reviews the history of development of CPD systems by the PMDC, analyzes the reasons for their failure and suggests a way forward to introducing an evidence based CPD programme to meet the needs of doctors on the PMDC register.

Title: CPD, standards by different bodies (WFME, GMC etc.), validation and recertification of practitioners and its importance

Rahila Yasmeen

Institute: Riphah International University, Islamabad

Abstract:

This talk will acquaint the participants with the standards and guidelines provided by various international accreditation bodies about. Various international accreditation bodies have emphasized the importance of CME/CPD for health professions. According to WFME Life-long learning is the professional responsibility of health professionals to keep up to date in knowledge and skills in response to the needs of their patients. This can be done through appraisal, audit, reflection or recognised continuing professional development (CPD)/continuing medical education (CME) activities. CPD is a broader concept than CME, which describes continuing education in the knowledge and skills of medical practice. Every licensed doctor who practises medicine must revalidate. Revalidation supports us to develop our practice, drives improvements in clinical

governance and gives our patients confidence that you're up to date.

Title: Formal & Informal Continuing Professional Development-The link between the Past, Present and Future of Health Professions Education

Ayesha Abdullah

Institute: Health Professions Education & Research, PMC

Abstract:

"I have a dream", is the slogan of all health professions' educators. Every educator is a dreamer, a dreamer who knows how to transform dreams into reality. Continuing professional development (CPD) is the tool that enables educators to envision the future, dream for it and then equip themselves with the skills to make dreams come true. CPD is hence the link between the past, present and future of health professions education. The role of the educator has radically transformed and substantially diversified over the past few decades. The growing complexity of the healthcare systems, socio-economic challenges in the provision of equitable healthcare, increasing risks to patient safety and quantum leap in research following genome project has posed immense challenges for the educators across the continuum of undergraduate and postgraduate education. To keep pace with the futuristic dreams and to equip themselves for such dreams requires a lot of hard work and innovative thinking. Various models have been tested to accomplish the tri-dimensional goal of CPD for health care educators i.e. intellectual growth, Skills enhancement and affective development through formal and informal methods. This talk presents a review of what works and what doesn't. The talk concludes with a vision of how CPD is likely to transform in future and how can we prepare for it today.

Title: Continuous Professional development: Research within the field (existing/ future)

Madiha Sajjad

Institute: Riphah International University, Islamabad

Abstract:

Continuous Professional Development (CPD) is one of the critical components in an array of interventions needed to strengthen healthcare service delivery. In many parts of the world significant progress has been done in formalization of CPD systems, however, these systems vary considerably in their structure and transparency. The impact of CPD programs remains largely unknown due to insufficient evaluation and research done in this field. Therefore, there is a great need to examine CPD programs to identify challenges and effective solutions to strengthen CPD. There is also a need for research within the field, especially regarding the outcomes of CPD in relation to the quality of health care delivery. This talk will highlight the research done on CPD in literature and how CPD has informed improvement in medical teaching and in clinical practice.

Symposium 4: Interprofessional Education

Title: What is interprofessional education (IPE) for 21st century healthcare delivery

Trudie Roberts

Institute: Lead Institute of Medical Education, University of Leeds, UK

Abstract:

Medicine is undergoing a revolutionary change. The rise of AI, robotics, genomics and digital technologies means that the workforce to deliver healthcare in the future will not just be doctors, nurses and therapist but much more broadly based. What do these changes mean for education and training in the future? So far, the introduction and embracement of

IPE has often been patchy and opportunistic. Difficulties with co-ordinating curricula and timetabling have frequently seemed insurmountable. How will these issues be addressed in the future when new professionals such as informaticians, engineers and computer scientists will be working alongside current professional groups?

Title: Is personality profiling affects specialty choices

Syed Imran Mehmood

Institute: Dow University of Health Sciences

Abstract:

Medical specialty selection forms the basis of the professional career of a doctor. However, as medicine is a diverse field, it is very likely that distinct specialties are associated with the various characteristics, motives and personality attributes displayed by doctors.

Research on the correlation between the personality and students' specialty choice is high on agenda these days. There are several important issues concerning the personality profiling and career counselling processes which affect the choice of a specialty in a doctor's life. Selecting a medical specialty is a difficult and critical decision for medical students, which is complicated by a number of factors, including the number of specialties available. Making the wrong choice can have far-reaching consequences for all parties involved. For the doctors themselves, discovering that the chosen medical specialty is not the right one could lead to dissatisfaction and, as a consequence, reduced wellbeing, decreased quality of care and reduced patient satisfaction. In addition, it could lead doctors to quit their training programme or transfer to another specialty or subspecialty.

Since Different personality types tend to have distinct preferences in their choice of careers,

Personality and specialty choice research can improve career counselling of medical students especially for these who are undecided about choosing a specialty that may be best suited to their personality. This also has implications for predicting the specialty distribution of the future health careers.

Title: Interprofessional Education; Bridging the Chasm-If not now then when, if not us then who?

Ayesha Abdullah

Institute: Health Professions Education & Research, PMC

Abstract:

Interprofessional Education (IPE) -an idea that is almost half a century old and grounded in sound theoretical perspective has been unable to find its translation into wide spread practice in health professions education across its undergraduate, postgraduate and continuing education spectrum. The growing complexity of modern health care practice, the greater influence of economic compulsions in health care, increasing focus on patient safety and systems-based practice has made the chasm between the education of health care workers and their professional patient care vividly visible. IPE has high "fidelity" in terms of congruence with the collaborative, multidisciplinary, multi-professional ethos and uniprofessional organizational learning demanded of today's health care provision. Therefore it is high time that we bridge this chasm through systematic adoption of IPE. We need to now think beyond the defining characteristics, principles, conceptual frameworks and perceived benefits of IPE. Three Cochrane reviews have been done on IPE since 1999. Although this shows evidence-based rationale for further investment in IPE, IPE research has yet to demonstrate robust evidence for impact on patient outcomes, how

the IPE processes influence and shape the practice of those engaged in it and finally how much is the leverage in terms of cost-benefit analysis in comparison with other models of modern HPE. This paper examines the issues of designing educational environments most conducive and cost-effective for IPE, certification of IPE, employability of the graduates, scope of IPE in developing economies and internally displaced or refugee populations, continuing professional development needs of IPE-graduates and evaluation of various IPE models with respect to their heterogeneity. It also develops the argument for the timeliness of IPE.

Title: Opportunities and challenges for interprofessional health education in rehabilitation sciences

Imran Amjad

Institute: Riphah International University, Islamabad

Abstract:

Rehabilitation sciences is a highly interdisciplinary field of health and biological sciences aimed at enhancing activity, function, and participation in daily life and promoting health and wellness among persons with or at risk of developing disabilities. Inter-professional education (IPE) is the active participation of different health care professionals learning with, from and about each other to improve health outcomes. IPE could enhance the attitudes, skills and knowledge of students in the rehabilitation professions to stimulate quality in inter-professional patient and family centered collaborative practices.

Title: The future of IPE in dental education “adopting a modern approach for the 21st century”

Yawar Hayat Khan

Institute: Riphah International University,

Islamabad

Abstract:

The health issues of the 21st century span all the health sciences. To address those issues all the healthcare professionals including students, teachers, researchers and staff must adopt a team based, cross discipline, integrative approach towards teaching and training refers to Inter Professional Education (IPE). Oral healthcare in the 21st century is characterized on one hand, by new technologies and knowledge that could transform dentistry, increase demand for state-of-the-art patient care, changing disease patterns, and aging populations; on the other, by pressure to contain costs and improve access to care. Within this context, inter-professional collaboration and teamwork holds a bright future and are increasingly recognized as means of achieving higher quality care and enhancing the effectiveness and efficiency of services.

Symposium 5: Patient Safety

Title: Experience of launching Undergraduate Patient Safety Curriculum for MBBS and BDS. Pharmacy and Rehabilitation Sciences colleges.

Mati ur Rehman

Institute: Riphah International University, Islamabad

Abstract:

Patient safety issues are quite common in hospitals globally and it is the 3rd leading cause of death in USA. The situation of Patient safety is quite alarming and a large number of unnecessary morbidity and mortality in hospitals during their medical care. There is no authentic data to accept or refute this because of non-availability of published literature about quality and safety in developing countries but certainly situation is quite alarming.

One of the important cause is that the healthcare professionals are not educated about patient safety in their professional colleges as it is not part of their curriculum. Riphah International University, Islamabad, Pakistan has taken lead by developing and implementing Patient Safety curriculum in its Medical College, Dental College, Institute of Pharmacy and Rehabilitation sciences.

The curriculum is in modular form and each module is of 2 hours duration and is divided in Face to face interactive session, Small group discussion followed by Feedback from students. Practical training and assessment for IPSP goals like Hand washing is part of the curriculum. IHI open school basic Patient Safety course is being used.

The main aim of this curriculum to Create awareness among the students, Faculty and Leadership of these colleges about importance of Patient safety and its long term benefits. To implement this curriculum Patient Safety trained faculty has been developed who are taking lead in implementing Patient Safety curriculum. The students have received this curriculum with great enthusiasm. It is recommended that all Pakistani Medical, Dental, Nursing, Pharmacy ,Rehabilitation Medicine and other health Professional colleges should follow Riphah International University to implement Quality to ensure no harm to the patients in all types of healthcare settings.

Title: Applying FOCUS PDCA on Medical Internship Program

Iftikharuddin

Abstract:

Assuring Quality is now a days an intrusive reality in academic with an emphasis on quality improvement. Indeed quality, especially if taken in its meaning, of excellence is and must be the core value in higher education it is what

makes higher education "higher".

The ongoing debate on quality in higher education has shown concern in MICRO level which refers to teaching / learning processes in tertiary institutions including curriculum planning, the interaction between teachers and students in the learning environment, and the development of learning communities among others. Among the two models considered in the quality review debate in higher education, Quality enhancement places an emphasis on a range of teaching learning activities across the institution from curriculum development to communities of practice. It uses a formative feedback process to bring about change.

By improving processes we may improve the work or performance and we may expand the capability of the process to produce high quality results in less time, at lower cost or with greater positive impact on our customers. FOCUS PDCA is among the many approaches which can be used for performance and process improvement.

Medical Internship of 12 months duration is an important period for the future of junior doctors. There is a need to improve the learning procedures.

This improvement project was conducted in a tertiary care University Hospital in Saudi Arabia in coordination with the University clinical teaching staff. An attempt was made to focus on internship training program applying the FOCUS PDCA cycle.

Title: Role of IHI open school for online learning of Patient safety

Amatul Aisha

Institute: Pakistan Institute of Rehabilitation Sciences, ISRA University Islamabad

Abstract:

The Institute of Healthcare Improvement is a recognized innovator, convener, and generous

leader, a trustworthy partner, and the first place to turn for expertise, help, and encouragement for anyone, anywhere who wants to profoundly change health and health care for the better. IHI is running an open school and has more than 800 chapters in 80 countries.

IHI Open School brings essential training and tools in an online, educational community to help deliver excellent, safe care. IHI Open School consists of more than 500,000 learners from universities, organizations, and health systems around the world in building core skills in improvement, safety, and leadership.

Institutional faculty and organizational leaders around the world rely on the Open School courses as an easy way to bring essential training in quality improvement and patient safety to students and staff — creating a common language around improvement and giving learners crucial skills to become leaders and agents of change in health care.

There are several approaches to integrating

Open School content into training programs, for example: Require students to complete the Basic Certificate in Quality and Safety, choose a few of our online courses to teach specific concepts, use Open School learning activities to facilitate discussion and project-based learning.

No matter the approach, when it comes to integrating Open School content into their curricula, faculty and trainers ask for advice and resources around many of the same things.

IHI Patient Safety curriculum consisting of basic course in Quality and Patient safety is being used in large number of academic and professional institutions internationally to improve Quality and Patient safety in their organizations.

It is high time that all Medical, Dental and other healthcare colleges in Pakistan implement IHI Patient safety curriculum in their colleges to produce safe healthcare professionals.



WHAT THE EXPERTS SAY?

Ronald M Harden

Title: Further developments in Medical education

Abstract

The future of medical education has continued to evolve since the last ICME in line with the fourth industrial revolution. This is reflected in changes in curriculum planning and a more authentic education programme; how students learn including the use of new technologies and adaptive learning; greater collaboration, unbundling the curriculum and interprofessional education; educational professionalism and changing responsibilities of the student; and the changing roles of the teacher in the education programme, including a switch from one of information provider to one of facilitator of learning, and manager of the learning process.

Trudie Roberts

Title: Professionalism and Integrity: challenges and consequences of modern medical training

Abstract

It used to be thought that professionalism would osmose into students merely by being at medical school and in contact with clinicians in the clinical workplace. The many scandals that have rocked the healthcare profession, not only in the UK but globally, have demonstrated that we cannot rely on role models alone to inculcate professionalism into undergraduate students. Most of the fitness to practice issues that come to the notice of regulators and licensing bodies are not related to issues of competence but centre around the doctor's professionalism. Integrity is embodied within professionalism but we know that students cheat in examinations. How common is cheating in medical school examinations? It probably occurs more frequently than we

would like to think. Why do students do it and how do they justify it when found out? Is cheating more morally wrong in would-be doctors than in other students? Are some types of cheating worse than others? How can we expose this type of deception and how can we deter students from deciding to cheat in assessments? How blameless are Faculty when students cheat? Indeed, do they sometimes collude in cheating and why are they so reluctant to report cheating when it is discovered. In this presentation I will explore these issues and look at the dilemma posed by medical students, trainee doctors and Faculty who are academically and professionally dishonest.

Mohamed Al-Eraky

Title: Assessment of Personal Qualities at the 'Is' Level on Admission & Graduation

Abstract

Assessment in the post-psychometric era moved from pure objectivity to encompass a more holistic and subjective notions. New domains for assessment have emerged over the past few years (beyond individual's knowledge and competence), that proved to have a great impact on the future careers of health professionals. Assessors became more concerned to enrich their toolbox with valid methods and protocols to assess the personal qualities of their candidates, not at the Knows, Shows or Does, but at the 'Is' level. In this symposium, we don't promise to offer conclusive answers, but rather ponder the following questions:

- How to assess medical professionalism beneath the shell of observable events to explore multi-layers of attitudes, attributes, personal qualities and even personality traits that fuel (un)professional behaviors?
- What are the salient personal qualities (at the Is level) that can be taught/assessed or selected in medical students on admission,

without being too judgmental?

- How to ensure validity and advance inter-rater reliability of assessors at the 'Is' level? How and how often these qualities should be assessed across the continuum of medical education?
- How assessment of personal qualities (at the Is level) may contribute to professional identity formation (PIF) of our graduates?

Ahsan Sethi

Title: Failure to Fail: The tip of the iceberg

Abstract

Society has entrusted medical universities to ensure that each graduate of their program is a competent healthcare professional. Assessments against a set criterion by the license awarding institutes is an integral component for establishing the fitness to practice in any field of healthcare. 'Failure to fail' is the allocation of pass grades to students who do not display competence at satisfactory level. This has significant implications for patient safety and healthcare. The literature suggests that 'failure to fail' is a real issue in undergraduate medical education, with many complex facets. Given the costs of medical education and the potential social and professional costs of poor quality medical/dental graduates, further rigorous research is required in this area. This talk will highlight what is currently known about 'failure to fail' in undergraduate medical education programs. The findings of a qualitative multi-institutional study from Pakistan will be presented as well.

Brekhna Jamil

Title: The Shift from Engaging Students to Empowering Learners

Abstract

The undergraduate learning and teaching environment should be such that the students learn contextually and in an integrated

manner. Teachers spend a lot of time developing lessons and content to engage their students. Many spend hours to find out the right activity to get students interested. But what if we shifted away from engaging students by telling them what they should learn and instead empower learners to figure out what they want to learn? Empowering your learners means letting them take some control in the learning process. Rather than guiding them along the path of learning, let them explore and figure out their own path to understanding. Shifting students towards ownership over their own learning helps developing creative and critical thinkers. This talk will emphasize on how to empower learners using the peer assisted learning approach and will also suggest some modifications in this approach.

Muhammad Nadeem Akbar Khan

Title: Plagiarism in Scientific Writings

Abstract:

Plagiarism refers to the act of "deliberately using another person's idea, work or words without permission, acknowledgment or without giving appropriate credit." Plagiarism has different forms but can be categorized into two general distinct categories – plagiarism of ideas and plagiarism of text (verbatim).

Reasons of Plagiarism:

- lack of awareness.
- a person may unknowingly present the ideas similar to those of others.
- deliberately copying part or all of somebody else's work without giving him credit.
- Personal values and ethics/attitudes
- Multiplication of database and easy access to materials on internet.
- Pressure to publish in high international indexed journals for the purpose of promotion.

How to avoid plagiarism:

- Read the instructions for authors provided

by the journal.

- Give credit where due.
- Use of verbatim/text must be enclosed in quotation marks.
- When paraphrasing, understand the material completely and use your own words.
- When in doubt reference it!
- Do not slice the results.

Role of Institutions:

- Expose students to genuine quality research papers, as well as to the rules and methodologies of good research.
- Foster a responsible research ethic.
- Explore the state of research misconduct and discourage it.
- Formulate guidelines for investigating and dealing with suspected cases.
- Clear warning and punishment for all levels of plagiarism

Role of Editors:

- Post its plagiarism on the website.
- Create an open peer comment space the journal's website

Masood Jawaid

Title: Are we preparing our HPEs to teach Generation Z?

Abstract

The present generation of medical students was mostly born after 1995 and is familiar with digital media as a matter of course. People of this age are often referred to as "Generation Z". Most of Generation Z have used the Internet since a young age and are comfortable with technology and social media. "Generation Z" is revolutionizing the educational system in many aspects. According to a current meta-analysis, approximately 70-80% of surveyed students use social media on a daily basis and about 20% of these use them for study purposes.

Despite the rapid development of the Internet over the past decade, web-based media still

play a minor role in the clinical phase of medical education. Primarily social media are considered unsuitable for teaching and even media which are viewed more favorably from an educational stance are only rarely used in classroom teaching or as learning tools. To accomplish this, a high level of interest on the part of faculty and the provision of sufficient staff resources at intuitional levels are crucial. Although we have a little time to be thoughtful about changing medical education to successfully teach Generation Z physicians. The bad news is that we have only a little time to make these changes. Medical education has been resistant to reform as at the end of the pathway are patients; we need to find the best teaching tools that promote the best delivery of care. Apart from innovating the current curriculum of HPE programs, new methods should also be identified to enable effective teacher networks extending across universities so that knowledge and experience with using web-based media can be shared.

Rehan Ahmed Khan

Title: Curriculum Viability: Evaluating a Sick Curriculum

Abstract

Curriculum evaluation is typically done using quality standards defined by accrediting bodies or regulatory authorities. These standards include the markers (for achieving standards) but not the inhibitors (issues that make it difficult to achieve the standards) of curriculum quality, which may manifest themselves as "diseases" of the curriculum. Hence to address both markers and inhibitors of curriculum quality, we have coined the new concept of 'curriculum viability'.

Usman Mahboob

Title: Mind your mind: Cognitive biases of medical educators

Abstract

Every day, we make decisions in our personal & family life, and in our clinical & educational context. Sometimes, we find that few of our decisions have gone wrong. While there might be external factors, such as environment-related that may not be in our control; certain decisions go wrong because of our cognitive biases.

A cognitive bias is a systematic error either in reasoning, evaluating, remembering, or other cognitive process, often occurring as a result of holding onto one's preferences and beliefs regardless of contrary information. The source for these biases can be conscious (gender, caste, colour, ethnicity), and sub-conscious (cognitive) mind.

Rizwan Hashim

Title: Role of simulation in Clinical training

Abstract

The working of Clinical medical setups are becoming more and more complex by each passing day. The addition of many emerging subspecialties with complex functioning technological devices are posing challenges for training of both post and undergraduates medical students. It is becoming difficult to provide hands on training using real patients those have the related illnesses where these gadgets can be used. Other challenges include the integrated medical services that needs training of the medical graduates, as currently in Pakistan the fragmentation of the medical services is contributing negatively towards health care systems of both the private and public sectors. Moreover the advances in technical expertise require learning from mistakes in safe simulated environments, rather than expecting that now mistakes will ever be committed. However, the educators in

Clinical training have been sluggish to device teaching methodologies to innovate and design the approaches depending on various learning theories that are related to simulation with the aim to enhance the knowledge and skill among their trainees. The methods of instruction integrated in the curriculum and the time allocations for Clinical training needs to be reviewed urgently specially in the present era of technological advancements. As teachers for Clinical courses, we need to device policies and training guides that provide solutions for patients and trainees safety while medical students are advancing their knowledge and skills. The currently available simulation techniques are: immersion in Clinical situations, use of current equipment and technologies, multiple simulation stations with built in feedback mechanisms and facilities for display of individual learning curves that encompass the practice stations for feedback, communication skills, and enhancement of skills with briefing and debriefing sessions, Virtual clinical environments with variety of simulation with high and low fidelity are the need of the day. Simulation as an educational tool is gaining grounds and it has the capability and potential to provide the learning experiences that have never been previously explored. It is high time that both the trainers and the trainees gain awareness and learn about these innovations for better learning and teaching in clinical sciences.

Mahwish Uzair

Title: Winning the Golden Ticket; Student Selection in Medical College

Abstract

Every year thousands of students apply for admission in medical colleges all over the world. With the increased demand of healthcare providers, it has become difficult to

decide which students to select who can be carved into competent health professionals. In most of the countries, different selection criteria are used such as previous academic scores, entrance test, aptitude test, communication, personality test, letter of recommendation, multiple mini interviews and even lottery.

Pakistani education system predominantly uses a weighted combination of 10th grade, 12th grade and MCAT scores for admission in medical school. There is an utmost need to evaluate the current selection process in order to check its adequacy, reliability and predictive validity in selecting the most suitable candidates among the pool of thousands of applicants and to formulate a selection policy in which all essential attributes should be considered to uplift the competency of healthcare providers.

This talk will give an overview of the admission criteria used in Pakistan in comparison with other parts of the world and will also propose the measures to improve our current selection criteria.

Saadia Sultana

Title: The Role of Simulation Based Medical Education and Skill Lab in teaching and learning!!!

Abstract

SBME is a teaching & learning strategy as well as an assessment tool. Confucius, in 450-BC said; "Tell me, and I will forget. Show me, and I may remember. Involve me, and I will understand."

OUTLINE:

- Understanding of methods (+ jargons) of Simulation Based Medical Education (SBME)
- opportunities implemented with SBME
- Concept of skill lab
- Advantages & disadvantages of simulation
- Current practices, future and research of

SBME

FUTURE VISION: Continuum of Learning

HOW TO SELECT A SIMULATION:

Following Conditions Should Be Met Before Adopting SBME

- Integrated with curriculum – (Driven by - LOs)
- Match – students' level
- Tasks range in difficulty
- Educational feedback
- Repetitive practice

TYPES OF SIMILATIONS:

- Screen-based/PC-based simulation
- Virtual patients
- Partial task trainers
- Human patient simulator
- Standardized patients
- Integrated models
- Human cadavers for surgical skill training
- Live or inert animals including isolated organs

COMPONENTS REQUIRED (FOR SBME) IN A CLINICAL SKILLS LABORATORY

- Training area and lecture room
- Simulators and equipment for simulation training
- Full-time faculty, instructors, and administrative staff
- Educational content
- Budget

ADVANTAGES:

- SBME reduces training variability (standardization)
- It Guarantees - individualized learning
- SMBE permits independent critical-thinking & decision-making
- It helps practice of difficult skills - experiential learning
- SBME facilitates reflective learning
- SBME Immediate feedback
- Occurs on schedule
- Overcomes preceptor's shortages and lack of clinical sites
- Learners engage in repetitive practice

- The simulator is integrated into an overall curriculum
- Learning outcomes are clearly defined and measured
- Learners practice with increasing levels of difficulty
- The simulator is adaptable to multiple learning strategies
- The simulator captures clinical variation
- The simulator is embedded in a controlled environment
- The simulator is a valid (high-fidelity) approximation of clinical practice

BARRIERS:

- Not real
- Limited realistic human interaction
- Students may not take it seriously
- No/incomplete physiological symptoms
- High financial cost
- Faculty development
- Ongoing administrative & technical support

FUTURE RESEARCH:

- Impact on competence & patient care
- Cost-effectiveness
- Integrated models for teaching & assessment
- Transfer of learning: (e.g. from a computer screen-based simulator to Human Patient Simulator)

Lubna Baig

Title: "Challenges for on the job training and Mentor ship for graduates of MHPE/MMEd programs"

Abstract

There are seven post graduate programs for Masters and two for PhD in Medical Education approved by PM&DC and HEC. In addition there are graduates coming out of the MCPS-HPE the CPSP program for training in health professions education. The number of post graduates produced each year is growing and ranges from 40-60 each year. Most of these graduates particularly from Masters Program

aspire to be faculty in Departments of Medical Education. These graduates may or may not have previous experience of working in medical education departments and may lack practical experience. All these programs are using blended learning as the main teaching learning strategy with 3-5 contact sessions. This Contact time is generally good for instilling academic knowledge but not enough for inculcating work experience. Henceforth it is imperative to develop a strategic plan for building internships and continued professional development programs for these graduates during and after graduation. The paper will have thought provoking revelations and discussion on some models of mentorship for health professions education graduates.

Khalid Farooq Danish

Title: Integration in the Medical Curriculum; another perspective

Abstract

Integration has been a subject of interest among medical educationists for a long time now. Different aspects of integration have been studied, suggested, practiced and subjected to substantial educational research. The prevalent argument is still in favor of integrated learning as it is most relevant, contextual and related intimately to clinical practice that is the main function of the physician. Presently vertical and horizontal integration of disciplines is widely practiced; actual integration of disciplines being done focusing clinical situations.

The prevalent concept of integrated curriculum involves integration by the curriculum designers and teachers. The students are not shown explicitly learning to integrate themselves. They are offered a pre-integrated knowledge, organized around clinical situations and relevant to clinical practice. In this way, the students do not learn to integrate themselves but rather get used to

receive information in an integrated form.

The integrated model of curriculum attempts to integrate basic sciences around clinical scenarios which do not constitute the natural knowledge foundation for basic sciences. An in-depth understanding of basic sciences cannot be achieved if they are deprived of their intrinsic integration around their own perspectives and contexts.

It is proposed that the curricular integration need to take into account the intrinsic integration of basic sciences focused; not on clinical situations; but normal natural phenomena that constitute the logical context of basic sciences. This leads us to a 3-circle spiral model of curriculum. The first circle focuses on explanations of normal structure and function of human organism, the second on derangements in normal structure and functions, brought about by diseases, and third circle on restoration of normal state of structure and function achieved through therapeutic interventions.

Sonia Haider

Title: Humanistic care– Have we lost it?

Abstract

Rapid progress has been observed in healthcare. Advances in the use of technology have led to early diagnosis for majority of diseases, new treatments, timely management of patients and prolonged life. Economic forces and commercial interests now drive the healthcare industry to focus on clinical productivity, efficiency, performance metrics and regulations, pushing physicians to see higher volumes of patients. Despite this progress, an increasing dissociation is also observed between the doctor patient relationships and the culture of humanistic care has significantly depreciated.

Humanism is the essence of medical practice. Deep-seated personal commitment to incorporate human values like caring,

compassion, and respect into every health care relationship defines medical humanism and is imbedded within the fabric of medical professionalism. However, its degeneration is a cause of concern as it can inhibit forming therapeutic relationships and detract from provision of quality of good care. In addition it can precipitate a culture in which both trainees and physicians in practice experience high rates of burnout, characterized by emotional exhaustion, depersonalization, and a reduced sense of accomplishment, with personal and professional consequences.

Shahid Malik

Title: Organizational change, how to lead your team

Abstract

Curriculum renewal is an essential and continuous process in undergraduate medical school. Keeping in mind the changing needs of the society and technological advances the medical curricula requires constant changes. This change in the curricula requires sufficient groundwork and the change leader has to address a number of issues before implementing a curriculum change in medical education, and a successful curricular change is only possible through the steadfast and dedicated efforts of effective change agents.

In order to lead and manage the change process the leader should have an understanding of the change process and issues that are involved with it. They should learn to overcome the difficulties and manage the issues that are associated with the change process. Since, change is a continuous process, it is essential for the person in charge for the change process to record and pay attention to the issues that emerge during this process. In this way they will be able to avoid these in future, thus helping the administration system to manage the change in the best possible manner.

Leading from the front is important but an

individual leader cannot implement change alone, a leader must help his employees and other stakeholders and build effective teams by developing new organizational structures. Such inspired and informed leadership is critical and essential for organizations to be successful.

Shaukat Ali Jawaaid

Title: How to get published in an Impact Factor Journal

Abstract

At present only three medical journals from Pakistan enjoy an Impact Factor i.e. Pakistan Journal of Medical Sciences, Journal of Pakistan Medical Association and Journal of College of Physicians & Surgeons Pakistan. Faculty members are under pressure to publish and condition of publications in an Impact Factor Journal by the Higher Education Commission has put not only the authors but also the editors of Impact Factor Journals in a dilemma.

The Impact Factor Journals have their own limitations of human resource and financial constraints but added to their worries is the low quality of manuscripts which are submitted for publication. Even if the quality of research is good, the presentation leaves much to be desired which results in increased trauma to the manuscripts submitted by the researchers and it also prolongs the processing and publication time after internal and external peer review.

This presentation will highlight some of these problems, the current situation and offer some solutions, guidance to the prospective authors how to get published in an Impact Factor Journal. It will also offer some useful tips to the authors besides highlighting the role of the regulatory bodies which should act as facilitator and help in professional capacity building of the authors as well as the journals so that we can have more journals with Impact

Factor which will be helpful for the authors and reduce pressure on the Impact Factor Journals.

Shoaleh Bigdeli

Title: e-Professionalism: the emerging need of the 21st century Medical Education Curriculum

Abstract

The millennial learners of medical education as digital natives, are accustomed to the use of the cyber-space that greatly affects their thoughts, beliefs, values, attitudes and behaviors. In other words, they show paradigm shift according to the cyber-space interactions; therefore, the Identity of the learners of digital era will be affected and changed. The formation of this new Identity affects their intrapersonal and interpersonal relationships and their micro and macro spheres. In this regard, to reform medical education curricula by defining e-professionalism terms, concepts and definitions, advantages and disadvantages, cultural, social and behavioral influences and impacts on micro and macro spaces of medical education learners is an absolute need that must be taken into account.

Azim Mirzazadeh

Title: Accreditation in Health Professions Education: What, Why and How?

Abstract

Accreditation is one of the oldest evaluation approaches for Quality Assurance in Higher Education. By definition it is grant of approval to an institution or program that has been evaluated by a panel of experts and met a well-defined set of standards. Although its origin was mainly United States of America, but It has proliferated in the last 2 decades in many countries. This rapid proliferation has led to several modifications in the definition and practices of new accreditation systems in different contexts. Although some of these modifications are more about the

implementation of accreditation sometimes are radical manipulations in its philosophy and could lead to major deviations from its original values. In this presentation, I will try to provide an overview of:

- the accreditation and its basics from the perspective of Evaluation practice
- its importance for Health Professions Education Quality Improvement and Assurance in a globalized world
- the components of an accreditation system and some experiences about its
- implementation in different settings
- some of the most important modifications in accreditation and their impacts
- the recognition process of accreditation systems and international initiatives for their establishment
- some words about the future of accreditation

Shagufta Feroz

Title: Lifestyle Medicine an Emerging Speciality

Abstract

Lifestyle medicine is an evidence-based, clinical discipline that emphasizes physician counselling on the adoption of healthy lifestyle behaviors and activities in patients. Lifestyle Medicine has six major components nutrition, physical activity, sleep health, emotional wellness, drug abuse and social connectedness. Extensive researches have proven that above mentioned components are root causes of non-communicable diseases (NCD). WHO says that by 2020 two third of chronic or non-communicable diseases will be due to poor lifestyle choices? The discipline gained momentum with the substantive population studies demonstrate, that adopting a healthy lifestyle may prevent 90% of all heart disease, 50% of strokes, 93% of diabetes and 36% of cancers and may decrease mortality in overweight/obese groups, with survival

improving each time a new healthy habit is added. In 2004 the founders of American College of Lifestyle Medicine (ACLM) understood and proposed that the human body may heal itself when proper diet and physical activity are implemented and tobacco use, alcohol misuse and stress are removed. Surveys conducted in USA conclude that physicians believe it is their responsibility to educate patients on lifestyle modifications and to implement prevention into routine patient care, they cite lack of knowledge, clinical skills, time, and the available resources as barriers to success. A 2002 survey of U.S. allopathic medical schools found that only 13% included physical activity and wellness in the curriculum.

The traditional curriculum of a medical college is deficient in lifestyle medicine training in pre-clinical and clinical years, in which even faculty is not lifestyle medicine trained. This will have a gap in essential knowledge, skills, and attitudes needed to transition into residency. In 2010, JAMA published "Physician Competencies for Prescribing Lifestyle Medicine," listing categories of leadership, knowledge, assessment skills, management skills, and use of office and community support as competencies needed for graduating medical professionals.

Irfan Shukr

Title: 21st century challenges to Pakistani health profession in teaching and learning, ethics and professionalism in Medical Education

Abstract

There is no agreed-upon definition of medical professionalism. Chandratilake et al (2012) in a multiregional study identified honesty, integrity, and respect for confidentiality, law-abiding behavior, and avoidance of substance, as essential elements of professionalism across Europe, North America, and Asia. In

developing countries, the awareness to teach medical ethics in medical colleges is growing. PM&DC instructs “All medical and dental colleges may incorporate medical ethics into their curriculum”. Prevalence of self-reported academic dishonesty is more in developing countries including Pakistan. Culture has strong influence on behaviors. Pakistan has its own culture that is conservative, traditional, group based, family valuing, less broad minded, less tolerant of dissent and Islamic. But at the same time, one reason of lack of professionalism in Pakistani students is due to corruption in Pakistani society as Magnus et al. (2002) showed good concordance between social corruption and cheating. Coming late is acceptable in society. Children grow up in a culture where helping one another, even if a

classmate is unable to do his homework is a good and right thing”. Dishonest behaviors, which are collaborative, are common. Cheating, plagiarism and unprofessional behavior like doctors going on strike are seen. Students are in “proto-professional” state and professionalism can be taught. The challenges are of student selection, bringing appropriate changes in curriculum, selecting appropriate methods and strategies for teaching ethics and professionalism, and choosing correct instruments to assess learning outcome related to it. But this is not the true challenge. Since teachers and students are sample of same population of Pakistan, the greatest challenge is how honestly Pakistani medical educationist and faculty, teaches and assess its students.



COURSES

Course 1 Title: Educational Leadership Strategies for Health Professionals in Developing Countries

Facilitators: Gohar Wajid, Amanullah Khan

Institute: Health Workforce Development, WHO-EMRO, Cairo, Riphah International University Islamabad, Pakistan

Abstract:

The importance of leadership for health professionals is increasingly being recognized at the global level. There is common agreement that health professionals such as physicians, dentists, nurses, pharmacists and allied health professionals should have leadership qualities to effectively lead their professions. A large number of professional associations, regulatory bodies and educational institutes are incorporating leadership as an essential attribute for the education and training of all health professionals. Few examples include Tomorrow's Doctor by GME, the National Leadership Competency Framework developed by the NHS, postgraduate competencies defined by ACGME and leadership competencies and standards defined by Academy of Medical Educators. Health Professions Education (HPE) curricula in developing countries mainly focus on developing the knowledge and skills of health professionals in their respective fields with little emphasis on improving 'soft non-technical, yet core skills' such as professionalism, communication, empathy, leadership etc.

The goal of this course is to improve the knowledge of participants about the significance of leadership for health professionals and developing strategies to incorporate leadership competencies in undergraduate and postgraduate health professions curricula.

Course 2 Title: Research in Health Profession Education

Facilitators: Usman Mahboob, Rahila Yasmeen, Ahsan Sethi

Institute: Khyber Medical College, Peshawar, Riphah International University Islamabad.

Abstract:

Research is one of the areas of medical education that is continuously evolving with addition of new philosophical approaches and ways of thinking to solve the problems in medical education or to explore new horizons. It is also one of the most discussed, but neglected areas when it comes to formal training in research. The aim of this workshop is to discuss the dynamics of quantitative and qualitative research in Health Professions Education with the study participants. The participants would take away a different insight about research in health professions education after attending this course. The target participants should be working on a research proposal that can be discussed during the course, so they can also be guided on how to further improve their proposals.

Course 3 Title: Essential Tools in Medical Education (ETIME) for development and assessment of an online course

Facilitators: Rehan Ahmed Khan, Masood Jawaid, Saad Zafar

Institute: Riphah International University Islamabad, Pakistan Journal of Medical Sciences

Abstract:

Teachers in the era of modern technology needs to be equipped with tools that can facilitate their teaching. This course would introduce participants to recent advances in digital teaching and online tools through which they can develop a course and its assessment and execute it online.

The course includes factual and conceptual knowledge on Flipped class room, Artificial

Intelligence, Virtual patients and Virtual Reality and course development and hands on training on a developing an online course and its assessment.

**Course 4 (Extended PCW Master Class):
Understanding Entrustable Professional
Activities**

Facilitators: Olle Ten Cate

Institute: Centre of Research and Development of Education University Medical Centre Utrecht, Neitherland

Abstract:

Health professions education in many parts of the world, and in several professions in the health care domain, have embraced competency-based education. Elaborate frameworks of competencies describe what qualities we think doctors, nurses,

pharmacists, and veterinarians should possess when they graduate. The ideal competency-profile of a professional should enable him or her to cope with the daily tasks that must be done. But tasks and competencies are two different things. They do not always match.

Entrustable professional activities are the tasks in health care we would like trainees to be entrusted with as soon as they demonstrate the necessary competence. EPAs usually require several integrated competencies simultaneously.

This preconference workshop focuses on this new concept. At the end of the workshop, participants should be familiar with EPAs and understand how they can be used to build education and support workplace-based assessment.



PRE CONFERENCE WORKSHOP

PCW 01: MCQ designing

Facilitator: Khalid Farooq Danish, Tauseef Fatima

Institution: Riphah International University, Islamabad

Abstract:

Objectives: Attending the workshop will enable the participants to: Explain educational attributes of multiple-choice questions Design flawless MCs Practice a systematic process of MC designing Provide effective feedback related to prepared items for quality enhancement.

Description: MCQ designing is one of the most engaging activities for the teaching faculty. Due to their superior psychometric properties multiple choice questions are very popular as an assessment modality. However, preparing flawless MCs requires training, practice and continued engagement. The present workshop is designed to introduce MCs, provide guidelines for preparation of flawless items and practice in designing good MCs. The workshop also addresses the issues of psychometric attributes of good MCs, systematic preparation of items and item banking considerations.

PCW 02: All about Mentoring-Developing a Mentoring Program at your institute

Facilitator: Mahwish Arooj, Tayyaba Azhar, Khadija Mukhtar

Institution: University of Lahore, Lahore

Abstract:

Objectives: At the end of this workshop, the participants will be able to: 1. Explain the purpose and key concepts of mentoring 2. Develop a mentoring program 3. Interpret the working of a mentoring program (training,

implementation and evaluation)

Description: Mentoring is a long-term relationship in which the mentees are constantly assisted in making significant improvement in learning thus helping them to develop their full potential. This workshop will help the participants broaden their understanding of the steps required to establish an effective mentoring program and they will be trained regarding the planning, establishment, implementation and evaluation of a mentoring program by sharing the first-hand experience of the mentoring program of UCMD.

PCW 03: Teachers communication and development of students

Facilitator: Azhar Rashid, Rahila Yasmeen

Institution: Riphah International University, Islamabad

Abstract:

Objectives: Understand the role of a teacher in teaching Understand the importance of communication skills of a teacher and the development of the students. Discuss the challenges and problems in clinical teaching. Dos and Dots for Teachers in communication. Discuss the role of technology in communication. Discuss the students perceptions of a teacher as a role model. Demonstrate effective communication as a teacher with a low performer and depressed student.

Description: To make teachers or would be teachers understand: The way to communicate with low performers and depressed students efficiently and build them. Their significance in the lives of students The challenges they will face The importance of communication skills in developing the personality of the student. The use of modern technology can be used effectively in communication.

PCW 04: Developing Tutorials for higher cognition

Facilitator: Syed Moyn Aly

Institution: Jinnah Sindh Medical University

Abstract:

Objectives: By the end of the workshop, participants will be able to: define tutorial differentiate among various forms of tutorials develop a tutorial for higher cognitive learning (integrated/ discipline specific) develop a tutorial evaluation form.

Description: Tutorials are commonly held throughout Pakistan. There seem to be many formats and strategies being used in the name of 'tutorials'. Through anecdotal evidence, it is clear that most of the tutorials are either repetition of lectures or used for recalling information of lectures. It is important to train the faculty in developing and conducting tutorials which can stimulate critical thinking and problem solving among students of various levels.

PCW 05: IPA (Interpretative Phenomenological Analysis)

Facilitator: Junaid Sarfraz

Institution: CMH Medical College, Lahore

Abstract:

Objectives: The aim of this workshop is to provide an opportunity for you to learn how to do IPA and/or to clearly and succinctly articulate what you have done in your research while providing good explanations based on the IPA methodology and the needs of your particular study. This workshop is suitable for research students from beginner to viva level.

Description: The goal of the workshop is to focus on each stage of the IPA research process with an emphasis on the Analysis. The learning process in the workshop involves moving back and forth between 'how to do IPA at each stage' and 'why you are doing IPA in this way rather than that!' The emphasis is always on

your own research because there are many factors that can influence what you do (for example how many participants in your study or how you present your findings). These must be balanced with the core philosophy of IP.

PCW 06: Program Evaluation

Facilitator: Lubna Baig, Zaeema Ahmer

Institution: JSMU Karachi

Abstract:

Objectives: The participants of the workshop will be able to: Analyze the different evaluation approaches for their effective use elect and justify the use of a model / approach for educational programme evaluation Develop a draft plan for evaluating an educational programme.

Description: The workshop focuses on programme evaluation approaches and development of an evaluation plan. Program evaluation is a field of research and practice that informs the developers, administrators, implementers and beneficiaries of any program or project regarding its usefulness and success. It also serves to answer the question of policy makers and funders to make decisions to continue or discontinue a program. This is a hands-on workshop and the participants will have to avail themselves throughout the workshop and develop a draft plan for evaluating an educational program.

PCW 07: Patient Safety Curriculum Implementation: Challenges and Opportunities

Facilitator: Paul Barach, Mati ur Rahman, Brig. Rizwan Hashim, Kamran Moosa

Institution: .IIMCT Riphah International University, Fazaia Medical College, Air University, PIQC

Abstract:

Objectives: 1.To share experience of Curriculum Development and implementation

process 2.simulation in Patient Safety Education 3.Outcome Based Education and Academic quality Assurance

Description: Patient safety is a global problem and promoting a culture of safety is the most important requirement for ensuring patient safety. The Hospital staff safety behavior determines the commitment of a hospitals for implementing and ensuring Patient safety in any hospital. There is a great need of introducing Patient safety as a subject and develop Patient safety Curriculum to produce safe Doctors and other healthcare professionals. The role of simulation based education and developing Patient safety educational programs with the methods, tools and techniques of outcome Based Education and Academic quality Assurance is crucial for successful safety curriculum implementation.

PCW 08: Basic skills for Examiners

Facilitator: Muhammad Idrees Anwar

Institution: Rawalpindi Medical University

Abstract:

Objectives: Discuss competencies required to be a good examiner 2. Demonstrate attitude appropriate for a good examiner

Description: Most of us are involved with assessments at various levels, yet we were never trained to be good examiners. There are lot of skills that an examiner must be aware of like developing a rubric, using check lists etc. similarly a good examiner has ability to examine a student without creating undue tension and anxiety. The purpose of exam is not just to fairly assess the student but also to satisfy the student that a thorough assessment has been performed without undue harassment and bias.

PCW 09: Curriculum and Assessment Alignment

Facilitator: Brownell Anderson

Institution: Board Room Evacuee Trust, NBME, USA

Abstract:

Objectives: Are the educational outcomes of the program clear. Is there consensus among the faculty about the defined outcomes. Is the educational program organized to accomplish the outcomes. Are the outcomes compatible with the school's mission. How is the educational program evaluated. What are external measures of assessment. What are the internal measures of assessment. How can necessary changes be made.

Description: Health professions schools and faculty invest tremendous resources to educate future healthcare professionals and faculty are asked often to manage curricula and education programs with few resources. Every educational program has defined outcomes and a curriculum to achieve those outcomes, but how can we be certain we are assessing the outcomes we have defined for the students? Participants will work in small groups during this interactive workshop with several activities that will focus on the following questions as applied to their own programs. Participants will apply "Appreciative Inquiry" to potential change strategies and be able to apply principles of curriculum development and program evaluation to a fictitious health professions school case to explore mechanisms to better align desired outcomes of the educational program with the assessments used to measure the outcomes.

PCW 10: Teaching Professionalism

Facilitator: Mohamed Al-Eraky

Institution: University Of Dammam, KSA

Abstract:

Objectives: Medical professionalism is context-specific that has to be explicitly taught in both undergraduate and postgraduate medical education. This workshop will discuss

key principles and useful tips for teaching and learning medical professionalism across the continuum of medical education. Participants will learn how to apply situated learning theory to incorporate elements of professionalism in both basic and clinical sciences.

Description: The workshop includes hands on to construct and reflect on vignettes on a user-friendly template to learn about the decision making process in professionalism dilemmas and anticipate consequences for each decision and eventually conclude the learning outcome(s) from each story/vignette.

PCW 11: Structured Clinical Examinations: Standard Setting Made Easy

Facilitator: Naveed Yousuf, Rukhsana W. Zuberi, Shazia Babar

Institution: Aga Khan University

Abstract:

Objectives: 1. Discuss standard-setting as an important step to enhance the reliability and validity of pass/fail decisions on OSCE scores; 2. Describe commonly used standard-setting methods for OSCEs with their strengths and limitations; 3. Differentiate between compensatory and conjunctive standard-setting; 4. Identify cut-off scores at station and examination levels using commonly used standard setting methods.

Description: Ensuring competence in clinical skills among graduating health professionals is one of the primary responsibilities of licensure awarding institutions. Identification of valid and reliable cutoff scores on OSCEs, however, still remains a challenge for many institutions. This workshop will introduce the participants to the purpose and importance of standard setting followed by the discussion on the different standard setting methods used for OSCEs. Participants will get an opportunity to practice commonly used standard setting methods on sample items. Common mistakes

and challenges regarding the implementation of standard setting at institutional level along with their solutions will also be discussed.

PCW 12: Modelling to become role model

Facilitator: Usman Mahboob, Ahsan Sethi, Brekhna Jamil, Rana Zeeshan

Institution: Khyber Medical University

Abstract:

Objectives: To determine the dynamics of role modelling, and how to consciously practice it in teaching

Description: Role modelling is considered to be a competence that needs to be inculcated by training the clinical teachers. However, many of us are unaware about its dynamics and how to consciously practice it in our teaching activities. The participants of the workshop will be introduced to some of the practical ways, how they can explicitly model to become role models in a highly interactive workshop.

PCW 13: Leading change in Medical Education by Emotional Intelligence and Leadership skills

Facilitator: Yawar Khan

Institution: Riphah International University

Abstract:

Objectives: By the end of the workshop the participants will be able to: 1. Leadership and its types 2. Difference between Leadership and Management 3. Levels of Leadership 4. Emotional Intelligence 5. Emotional Bank Account Emotional climate 6. How to bring change in medical education using Leadership and Emotional Intelligence.

Description: It will be an interactive session students will be divided into groups. A session for about 2 hours with various activities in between followed by a scenario based hands on workshop and a small role play.

**PCW 14: Facilitate your students using OMP.
Time Efficient Teaching in Clinical Practice**

Facilitator: Saadia Sultana, Professor
Muhammad Nadim Akbar Khan

Institution: IIMC- Riphah International
University .Islamabad

Abstract:

Objectives: Attending this workshop will enable you to: Carry out satisfactory OMP with students in clinical teaching by applying the 5 micro-skills. Identify analyse and practice effective clinical teaching using the One Minute Preceptor. Critique the process of OMP.

Description: Effective clinical teachers should: Communicate expectations explicitly. Stimulate interest enthusiastically. Interact skillfully with patients. Involve the learner in the teaching process. Role model desired behaviors. Give feedback on performance. OMP is: alidated model for effective/efficient clinical teaching. Developed initially for OPD can be used in any clinical setting. Promotes learners active involvement in patient care. encourages teacher to recognize teachable moments. It allows for simultaneous care of patients and learners. Workshop is designed for both clinical preceptors students/trainees to enhance shared responsibility for learning. OMP is teaching methoddesigned to help faculty to teach efficiently when otherwise pressed for time.

PCW 15: Effective feedback: An essential skill

Facilitator: Rehman Sarfraz, Memoona Mansoor, Ali Tayyab, Syed Shoaib Shah, Shazia Imran

Institution: Islamabad Medical and Dental College (IMDC)

Abstract:

Objectives: By the end of this workshop the participants will be able to: 1. Outline general principles of feedback. 2. Address issues encountered during the process of feedback.

Description: Feedback is an essential component of personal and professional development. In academic environment nonjudgmental feedback forms the basis of formative assessment as positive relationship exists between effective feedback and student achievement. The feedback in preclinical and clinical settings is a mode of effective communication between faculty and students. This workshop will focus on the general principles of feedback and hands-on activities which will help the participants to identify the challenges encountered in giving and receiving feedback along with the strategies to overcome them.

PCW 16: How to Conduct Self-Study Based on Accreditation Standards

Facilitator: Azim Mirzazadeh

Institution: Tehran University of Medical Sciences

Abstract:

Objectives: After participation in this workshop, the participant is expected to be able to:

Describe the basic concepts and process of accreditation and self-study in an accreditation system

Being able to conduct a self-study before a formal external review of accreditation visitors

Description In the last decades, there is increasing attention to the importance of quality assurance and improvement in health professions education. Accreditation as one of the most recognized quality assurance process received more attention in 5 continents. WHO and World Federation of Medical education (WFME) have started a joint program for promoting accreditation worldwide and based on ECFMG policy, after 2023, only those applicants who graduated from an accredited medical school could sit the licensing examinations.

Medical schools need to be more familiar with the structure and functions of accreditation systems and the details of the process of a self-study in it.

In this workshop, after a brief description of basic concepts about accreditation system, you have a lot of opportunity during interactive group exercise to use a simple tool for collection and analysis of data according to standards of an accreditation system.

PCW 17: Qualitative Research: Beyond interviews and focus groups

Facilitator: Zarrin Seema Siddiqui

Institution: The University of Western Australia

Abstract:

Objectives: To identify new tools for data collection in qualitative research. Experience some of the identified tools. Reflect on their use in research related to health professions education.

Description: The format of the workshop is based around experiential learning model. After orientation to several approaches, participants will have an opportunity to discuss their research ideas and select the relevant tool for data collection.

PCW 18: Time management

Facilitator: Muhammad Alamgir Khan

Institution: Army Medical College Rawalpindi

Abstract:

Objectives: 1. Use time management tools more effectively 2. Differentiate between being busy and being productive 3. Set SMART objectives in professional and personal life 4. Prioritize the activities and make them goal directed 5. Learn to say no

Description: 1. Time management; a misconception 2. Why to manage time? 3. Strategic vision and setting goals 4. Time management matrix 5. Identifying and

protecting the Einstein Window 6. Applying Pareto Principle (80-20 rule) 7. How to change habits.

PCW 19: Team Based Learning

Facilitator: Faiza Kiran

Institution: Army Medical College Rawalpindi

Abstract:

Objectives: Organize TBL sessions for undergraduate/postgraduate medical students by appreciating TBL as an effective instructional strategy keeping in mind the resources required in a single session of TBL. List the basic steps of TBL.

Description: 4 steps of TBL are introduced. Teams of 8-10 are made. iRAT: A single handout of 10 MCs is given to each participant. They are asked to brainstorm and solve each item individually. t-RAT: Team members are asked to solve the same set of MCs after discussion.

PCW 20: Artificial Intelligence in Health Professions Education: Technology Development to Application - Virtual Patient Learning (VPL)

Facilitator: Hossam Hamdy, Guilio Tavarneri, Andrea Laus

Institution: Gulf Medical University U.A.E

Abstract:

Objectives: To introduce medical educators to a major medical education innovation using artificial intelligence and advanced cinematographic techniques which will affect the implementation and future direction of Problem Based Learning. It transform the traditional PBL format to a virtual patient the students or residents can interact with.

Description: Participants in small groups for 15-20 minutes identify shortcomings related to the authenticity of the paper or computer based problems used in Problem Based Learning. The Virtual Patient Learning (VPL) will be uploaded on the participant's laptops.

They will interact with virtual patient in a way similar to the student's interaction with a real patient. Participants will be trained as PBL facilitators on how to use VPL in conducting the PBL tutorial. Participants at the end of the workshop will give feedback about their experience.

PCW 21: Quantitative Research in Medical Education-Choosing the Right Design and the Test

Facilitator: Madiha Sajjad, Rehan Ahmed Khan

Institution: Riphah International University Islamabad

Abstract:

Objectives: Practical guidelines in selection of an appropriate quantitative research design and methods

Description: The delivery of medical education. However, many clinical medical educators lack the training and skills needed to conduct high-quality medical education research. This workshop aims to give practical guidelines in selection of an appropriate quantitative research design and methods which are in alignment with the stated research question and the hypothesis

PCW 22: 21st Century Medical Curriculum for Millennial Students of Medical Education

Facilitator: Shoaleh Bigdeli

Institution: Iran University of Medical Sciences (IUMS), Tehran, Iran

Abstract:

Objectives: 1-Explains history, terms, concepts and definitions of curriculum. 2-Explains levels of curriculum. 3-Describes teaching and learning cycle. 4-Compares and contrasts the characteristics of traditional and millennial medical teachers and students. 5-Compares and contrasts traditional and millennial medical education curricula. 6-Discusses features of 1st to 4th generation of medical

universities. 7-Revises a curriculum of choice according to the demands of 3 or 4G medical universities.

Description: On the basis of the new movement of universities to establish new educational systems and the importance of considering the characteristics of millennial Y and Z generations, during this workshop participants will find opportunities to actively investigate curriculum key terms, concepts and definitions and design the curriculum of their courses by considering the emerging needs of their contexts and the needs, wants and desires of their millennial audience.

PCW 23: Scientific Writing & Publishing

Facilitator: Shaukat Ali Jawaid

Institution: Pakistan Journal of Medical Sciences Karachi, Pakistan

Abstract:

Objectives: Basic principles of medical writing, different types of medical writing, latest guidelines by the International Committee of Medical Journal Editors (ICMJE) on authorship and how to write a scientific paper discussing in detail as to what information has to be included in which section of the manuscript.

Description: It also involves Hands on Training exercises besides a mini Test at the end of the workshop to assess how much knowledge the participants of the workshops have gained. The participants will be encouraged to actively participate in the deliberations to make it interactive and interesting. It is hoped that it will help the participants to get published in high quality standard peer reviewed Impact Factor Journals minimizing trauma to their manuscripts during the review process.

PCW 24: Developing OSCE Stations

Facilitator: Trudie Roberts

Institution: University of Leeds, United Kingdom.

Abstract:

Objectives: 1. Learn about the theory underlying the use of OSCEs. 2. Learn how to blueprint an OSCE (design the content). 3. Learn the principles of writing good OSCEs stations. 4. Experience writing OSCEs stations in groups. 5. Pilot OSCE stations.

Description: For participants to gain knowledge about the use of OSCEs (Objective Structured Clinical Examinations) in the assessment of clinical competence.

PCW 25: Medical Students, Social Accountability and the Role of the Teacher

Facilitator: Gohar Wajid, Saima Rafique, Noor-i-Kiran Haris

Institution: World Health Organization St. Egypt, University of Lahore, Aziz Fatima Medical College

Abstract:

Objectives: To address the concept of social accountability and the role of teachers and students towards promoting social accountability in Pakistan.

Description: There has been exponential increase in the number of medical schools and other health professional education institutes globally, over the past few decades. These institutes incur heavy financial and other resource investments by the governments and private sector. These institutes have direct impact on the quality of health workforce being produced and thus the health services provided in a country. There are numerous challenges facing the health professionals' education institutes in terms of quality of education, relevance of education to population needs, equitable distribution of these institutes in different geographical regions of the country. These institutes are thus socially accountable to produce high quality health works, relevant to the needs of

the populations they serve. The concept of social accountability states that "Medical Schools have the obligation to direct their education, research and service activities towards addressing the priority health concerns of the community, region, and/or nation they have a mandate to serve". Medical schools carry this responsibility through the teachers and students involved in teaching and learning practices in the institute. There is a need that the concept of social accountability is reflected clearly in the accreditation standards and missions of health professionals' education institutes and teachers and students are well aware of their role and responsibilities towards fulfilling their social accountability roles as health professionals.

PCW 26: Developing Virtual Patients (VPs)

Facilitator: Zubia Masood, Masood Jawaid

Institution: Ziauddin University, Karachi

Abstract:

Objectives: Describe virtual patients in health care education.

Write storyboard of virtual patients.

Develop Virtual patients using simple computer software

Description: The term Virtual Patient (VP) is used to describe interactive computer simulations used in health care education. Virtual patients combine scientific excellence, modern technologies and the innovative concept of game-based learning. Virtual patients allow the learner to take the role of a health care professional and develop clinical skills such as making diagnoses and therapeutic decisions. Virtual patients (VPs) are excellent teaching tools for developing clinical decision-making skills and improving clinical competency, but are believed to be very expensive and time consuming to make.

PCW 27: Teaching and Assessing Professionalism and Ethics in Medical Education

Facilitator: Muhammad Iqbal Khan, Saeed Shafi

Institution: Shifa Tameer e Millat University

Abstract:

Objectives:

- Distinguish between professionalism & ethics.
- Differentiate attributes of professionalism and how to incorporate them into curriculum.
- Compare the pros & cons of different teaching strategies employed in the instruction of professionalism.
- Distinguish unethical behavior of healthcare workers in different scenarios.

- Design & develop tools of assessment of professionalism in healthcare workers.

Description: There has been growing interest in the instruction and assessment of professionalism. Shifa College of Medicine, Shifa Tameer e Millat University (STMU) introduced explicit instruction of Medical Ethics & Professionalism longitudinally throughout five-year MBBS integrated spiral curriculum, through Role modelling; Role plays; Video demonstrations; Case studies and Didactic instruction by regular faculty and visiting community leaders. Professionalism is perceived differently from one culture to another. This workshop will provide hands on experience to the participants about teaching & assessment of professionalism in undergraduate medical education.



CONFERENCE WORKSHOPS

Title: Principles and process of Breaking Bad News in clinical practice

Facilitators: Muhammad Masood Khokhar , Shafaq Masood

Abstract:

The workshop is intended to improve knowledge, skills and professional attitudes of clinical faculty and undergraduate/ Postgraduate medical students/trainees so that they comprehend challenges, model, steps and demonstrate skills involved in breaking bad news in clinical settings. It will be interactive, with following outline: 1- Introduction 2- Interactive discussion of SPIKES model of breaking bad news in clinical setting 3- Group activity based upon clinical scenarios 4- Feedback & discussion 5- Summary & Conclusion.

By the end of this workshop the participants will be able to: 1- Comprehend challenges involved in breaking bad news in clinical settings. 2- Comprehend steps involved in breaking bad news in clinical settings. 3. Carry out Group activity & provide/receive Feedback

Title: Digital Professionalism for Medical Teachers

Facilitators: Noor-i-Kiran Naeem, Ahmed Hassan Khan, Khadija Khan

Abstract:

This workshop aims to cover the issues of e-professionalism for Health professionals' teachers while using various social media sites and is focused on applying acquired knowledge. The instruction style combines knowledge with component breakdowns, specific usage scenarios, examples and hands-on exercises to guide the participants in dealing with issues related to professionalism while using social media sites.

By the end of the workshop, the participants

shall be able to: 1. Define digital professionalism 2. Delineate importance of demonstrating professionalism at various social media sites. 3. Discuss various forms of lapses in e-professionalism while using social media 4. Develop strategies to discover such lapses during online social interaction.

Title: Let's Play Moral Games as Teaching Tool in Medical Education

Facilitators: Sarosh Saleem

Abstract:

Healthcare providers face numerous moral dilemmas in their personal and professional lives. Introducing moral games in medical education can be a fun way of teaching and learning. It will facilitate critical thinking, listening skills and value clarification of the participants. The goal of this workshop is to impart knowledge and skills that can help assist learners in finding their own morals and values in considering socio-scientific issues dealt in medicine. The participatory style of the workshop with several moral games that can be replicated and adapted will help teach ethics in a practical way to medical students and trainees.

At the end of the workshop, participants will be able to: 1. Identify common ethical dilemmas in healthcare 2. Demonstrate structured approach in assessing & teaching the ethical issues 3. Develop ways to incorporate ethical imperatives in teaching healthcare professionals

Title: Effective strategies for developing JEDi (Junior Ethical Doctors): "May the FORCE be with you!"

Facilitator: Muhammad Shahid Shamim

Institute: Dow University of Health Sciences

Abstract:

In this workshop the rational for developing focused, objectified, regulated, competence-based and ethics-oriented (FORCE) methods

for teaching ethics will be discussed using brainstorming and interactive discussions. Effective teaching methods for ethics will be illustrated with examples. Use of reflective writing, role-play and video-clips will be demonstrated and discussed. During the workshop, participants will plan their ethics course and select relevant teaching methods. They will demonstrate how their course plan and teaching methods align with the FORCE. The workshop facilitator will use the metaphors from “Star Wars” (a famous science-fiction movie series), to maintain an enjoyable highly interactive environment for participants.

Title: Workshop on Workshop Designing

Facilitators: Khalid Rahim Khan, Ambreen Khalid

Institute: Cantonment General Hospital, Lahore

Abstract:

Conducting workshop is the in vogue activity at par with the modern educational practices for inspiring a new protocol, inculcate a new idea and to inspire hands on activity. The educationists and doctors currently require to effectively create their own workshops for a successful transfer of idea or initiation of an activity among the participants. Current proposed workshop will enable the participants to understand as how to 'craft a workshop framework' with a backdrop of pertinent activity which aligns with the intended content transfer and also certain noteworthy points regarding the execution of Workshop.

Conduct search for an appropriate topic for a workshop 2. Design a workshop framework 3. Align the content of the workshop with the learning needs of the target audience 4. Craft workshop activity to ensure active

participation of the participants 5. Conduct the designed workshop according to best practices.

Title: How to improve critical thinking skills in student centered learning environment with Team Based Learning (TBL)

Facilitators: Nusrat Bano, Uzma Asif, Surraya Qamar

Institute: King Saud Bin Abdul Aziz University for health sciences, Saudi Arabia

Abstract:

TBL is a type of Flipped Class learning technique with a highly structured in-class (face to face) set of activities that are known to enhance the learning experiences in students. It improves class climate and builds critical thinking skills. It combines elements of individual learning with group activity in a vibrant and electric self-centered learning environment. Think-Pair-Share strategy will be used by the facilitators for introduction to TBL and critical thinking followed by a mock TBL activity session in second half of the workshop engaging participants as learners in an active class. Strengths and limitation of TBL will be highlighted.

This workshop will introduce participants to the key features of Team Based Learning and inspire them to use the technique in their classrooms.

Title: Effective Literature Search: Tips and Tricks

Facilitators: Farooq Azam Rathore, Sahibzada Nasir Mansoor

Institute: PNS Shifa Hospital, Karachi

Abstract:

Literature search is an essential skill of the 21st century for any healthcare professional. It is not only a requirement for research and writing but also needed to remain updated

about the latest advances in one's own field and to decide about the best evidence to inform treatment. With millions of articles and dozens of databases available it becomes difficult to remain focused and literature search for an article becomes the proverbial "Needle in the haystack". This workshop using a lecture and live demonstration technique will train the participants in effective and focused literature search.

Title: Construction of case cluster MCQs: what, why and how

Facilitator: Tahira Sadiq

Institute: Riphah International University, Islamabad

Abstract:

Workshop will be of 1.5 hours including short break workshop will be delivered by two facilitators through power point presentation followed by interactive discussion and frequent hands on activities Workshop will be divided in three sessions(1st session on importance of case clusters as assessment tool, 2nd session on importance of case clusters for assessing PBLs and 3rd session on how to construct case clusters) At the end of workshop participants will construct Case Clusters according to the guidelines provided. Appreciate the rationale and definition of problem based learning. Understand open and guided discovery approaches in PBL regarding case cluster MCQs. Discuss the anatomy of cluster MCQs. Interpret important considerations required for preparing Case Cluster MCQs. Design Case Cluster MCQs according to the sample PBL theme. Evaluate the presented Case Cluster MCQs in groups.

Title: Designing case scenario for CBL session: A hands on activity

Facilitators: Shabana Ali, Humaira Kamal

Institute: Riphah International University, Islamabad

Abstract:

Case-based learning, an established pedagogical method, fostering effective learning in small groups through its effect of having more engaged learners and structured learning activities with clinical practice scenarios. Teachers enjoy CBL as it makes better use of their available teaching time. In health professional education learning activities are commonly based on paper-based patient cases. A training on construction of these cases will provide faculty a chance to develop mature, authentic and detailed case scenarios for a more interactive learning strategy.

Explain the process of a CBL session 2. construct a case scenario along with probing questions aligned with learning objectives.

Title: Construction of Objectives Structured Clinical/Practical Examination (OSCE) for the Health Profession Education of Psychomotor Skills Assessment Hands-on Workshop

Facilitators: Hamza Abdulghani, Mahmood Salah

Institute: King Saud Bin Abdul Aziz University for health sciences, Saudi Arabia

Abstract:

OSCE/OSPE is a common method of assessment of psychomotor competencies across in health education. Often, OSCE/OSPE stations are limited to straightforward, standard and very easy tasks undermining the clinical complexity of the real-life. The main aims are to discuss in depth important issues such as, role of OSCE/OSPE in overall student psychometric skills assessment, using OSCE to test higher order clinical skills, validity and quality assurance of clinical assessment.

Identify the basic principles of psychomotor

skills assessment. 2. Discuss appropriate usages and limitations of OSCE/OSPE. 3. Recognize how OSCE fits into broader domain of psychomotor assessment 4. Prepare OSCE/OSPE assessment blueprint 5. Construct high quality relevant OSCE/OSPE stations for different specialties assessment of clinical/practical/procedural competency

Title: Blended Learning: Engage your students on Campus and outside the campus using Instructional design for designing online learning experiences

Facilitators: Hasnain Zafar Baloch, Shahid Hassan

Institute: International Medical University, Kuala Lumpur

Abstract:

Online, open, blended, and distance learning is becoming an integral part of health Professions education. The workshop will

include Hands on activity in which participants will be provided with links to two developed online courses. Participants will be asked to assess the content as a learner and discuss in groups. Instructional design models and theories will also be discussed. Participants will be given group of learning outcomes and asked to modify, accept or reject based on suitability for online courses. Besides, hands on session exploring online tools to design and develop online learning experiences and how can they be used.

The objective of the workshop is to identify the importance of instructional design in developing online learning activities/module and writing of instructional outcomes suitable for online courses. Workshop will also identify appropriate instructional strategies for effective course delivery and tools appropriateness, including the assessment and the feedback.



ORAL PRESENTATIONS

Title: Social accountability: Mirror, Mirror on the wall

Author: Zarrin Seema Siddiqui

Institute: The University of Western Australia

Aims: Social accountability should be a key element in the health professions curriculum and requires a strong commitment from the institutions to bring a positive change. A number of approaches have been used by institutions to embed social accountability within their curricula.

Methods: In 2014, the University of Western Australia introduced a new four-year MD program which has six curricular themes. MD Portfolio was introduced as a longitudinal assessment across four years of the curriculum with assessments at four points in the curriculum.

Results: Students have been actively involved in creating activities that promote social inclusion within their portfolios. In this presentation, a sample of these activities will be presented which are student led and promote social inclusion. This presentation will offer opportunities to discuss and reflect on how to embed the relevant activities in the curriculum.

Conclusion: Social accountability is not just preparing graduates which are "fit for purpose". It rather requires a change in the philosophy and mission of the whole institutions and need medical educators to be fully involved in the process.

Title: Learning in Clinical Skill Lab (CSL): The User Perspective

Authors: Rizwan Hashim

Institute: Fazaia Medical College Islamabad

objectives: To explore the factors that enhances and hamper learning of medical

nursing students using clinical skill lab.

Methods: Study Design was Basic qualitative study. This study was carried out from 03 April to 29 September 2017. One to one semi structured interviews were conducted and qualitative data was collected. Literature search was done extensively before formulating the interview questionnaire. This was followed by expert validation.

Results: Twenty participants, 6 males and 14 females participated in the study, with minimum of 6 to maximum 9 months of training in CSL. All the participants confirmed that the training in the CSL increased their motivation and confidence.

Conclusion: All the CSL trainees strongly endorsed this method of hands on training, they narrated that inspirations, motivation, training and guidance provided by the instructors enhanced their learning in CSL.

Title: Internet addiction among social networking sites users: Emerging mental health concern among medical undergraduates of Karachi

Authors: Zaeema Ahmer

Institute: APPNA Institute of Public Health, Jinnah Sindh Medical University

Aims: To determine the frequency and intensity of Internet Addiction (IA) among medical Undergraduates, using Social Networking Sites (SNS), in Karachi

Methods: A cross-sectional survey was conducted in March-June '16 in a private and government medical college of Karachi. Self-administered, Young's Internet Addiction Test was implemented by 340 medical students to assess the frequency and intensity of Internet Addiction.

Results: Internet Addiction (IA) was found in 85% (n=289) of all study participants. Among them, 65.6% (n=223) were 'minimally addicted', 18.5% (n=63) were 'moderately

addicted', whereas 0.9% (n=3) were found to be 'severely addicted'.

Conclusion: Internet Addiction (IA) is an emerging mental health concern affecting social behavior patterns of medical undergraduates. However, the burden of IA is relatively higher among female medical students.

Title: The Effects of Teaching Professionalism in a Private Medical College of Pakistan

Authors: Muhammad Nadim Akbar Khan, Saadia Sultana

Institute: Islamic International Medical College, Riphah International University

Aims: Hospitals all over the world are striving to implement patient safety culture to provide safe healthcare services to patients throughout the continuum of services in the hospitals. The emerging awareness in patient safety culture in Pakistan emphasizes the need for assessing patient safety culture to be able to develop patient safety framework for Hospitals.

Methods: STUDY DESIGN: A two phase explanatory-sequential mixed method study by using a quantitative survey followed by qualitative phenomenological design.

PLACE & DURATION: Islamic International Medical College Rawalpindi, from September 1st to December 31st, 2016.

METHODOLOGY: The Penn State College of Medicine Professionalism Questionnaire was used to gather the perceptions of MBBS students about the elements of professionalism after its formal training. Focused group discussions conducted to explore students understanding of the effectiveness of various strategies used to teach professionalism were audio recorded, transcribed and analyzed by thematic analysis with the software NVivo. Quantitative data was analyzed by SPSS 21.

Results: The medical students of four MBBS

classes considered six attributes of professionalism as important with a Cronbach alpha value of above 0.75. Mean scores calculated for the elements of professionalism for first, second, third and fourth year students was 145.66(+21.05), 130.98 (+24.67), 121.09 (+17.13) and 151.34 (+12.28) respectively. There were significant differences in the mean scores among four classes ($p = 0.000$). Role modelling was determined to be the most effective and useful method to inculcate professionalism among students. In FGDs students identified six major themes including; professionalism training, role modeling, faculty development, mentoring, student to student counselling and assessment of professionalism.

Conclusion: A curriculum with explicit teaching of professionalism brings about a significant improvement in the attitudes of students pertaining to professionalism. The students recognize role modelling to be most effective method in developing professionalism. They perceive that teaching strategies based on role modelling, formal mentoring, faculty development can improve the training.

Title: "Mini-CEX: Feasibility, acceptability and effectiveness of its use in the learning of post graduate residents"

Authors: Saadia Sultana, Muhammad Nadim Akbar Khan

Institute: Islamic International Medical College, Riphah International University

Aims: Obstetrics/Gynecology residents have to undergo intense competency based training to gain a vast experience. Many areas of clinical skills are not observed/assessed. There is no definitive structured method to give constructive, formative feedback at their work-places. Mini-Cex is a structured and manageable formative assessment in clinical practice.

Methods: Residents (21) and faculty members

(10) participated. Amended mini-CEX tools were adapted. Residents were assessed in different competencies. Effectiveness and acceptability were assessed by: Scores of first and final Mini CEX Perceptions of subjects Feasibility was assessed by: 1. Time burden (by extrapolating mean time over a year), 2. Practical difficulties (This pilot project will prove to be helpful in reorganizing post-graduate curriculum. It will simultaneously augment and improve learning, owing to immediate formative feedback during routine work. It will be of benefit to all healthcare professionals involved in clinical teaching in the workplace including undergraduates).

Results: Almost all residents (18/21) and faculty members (8/10) were satisfied. 75% residents showed improvement. Average duration for observation: 19.51 minutes. Average duration for feedback: 13.08 minutes. Seventeen residents indicated feedback as the strongest characteristic. Most participants (19 residents; 8 faculty members) occasionally experienced trouble. 27% residents felt anxious being observed. 84 sessions in 6 months exhibited mini-CEX as a highly acceptable and feasible tool for WPBA. In Pakistan, only three published studies are unable to give a clear view about the usefulness of WPBA of Obs/Gynae post-graduate residents.

Conclusion: Mini-CEX is an effective educational tool and is acceptable both to residents & faculty members. It is also feasible for use in busy teaching hospitals. It helps faculty/institution to assess residents. It provides valuable opportunity to give formative/constructive feedback to the residents

Title: Assessment of patient safety culture in Pakistani Hospitals: A Baseline study for development of patient safety framework

Authors: Mati ur Rahman, Manzoor Awan,

Omer Awab, Shahid Sultan, Mehwish Faisal, Nabeel, Shabbir Ahmed, Maqsood ul Hassan, Azhar Rasheed

Institute: IIMCT, Riphah International University

Objective: Hospitals all over the world are striving to implement patient safety culture to provide safe healthcare services to patients throughout the continuum of services in the hospitals. The emerging awareness in patient safety culture in Pakistan emphasizes the need for assessing patient safety culture to be able to develop patient safety framework for Hospitals.

Method: The AHRQ's patient safety assessment tool was used to measure the patient safety survey in two hospitals. The number of responses tabulated, analyzed and reported in this paper. This study was conducted in two hospitals of Riphah International University of 400 and 150 beds respectively, total number of respondent included 152 hospital staff. The data was collected from clinical, paramedical and administrative staff; the response rate was 63%.

Results: Staffing concerns (53.25%) and managers actions for promoting patient safety (59.85) observed as low positive responses. The patient safety culture in the hospitals was assessed as positive by 63% of healthcare providers. The highest positive score were achieved as organizational learning continuous improvement 76.40% and the very lowest positive score 28.83% observed in frequency of event reporting. Similarly, the other core areas like handoffs during transition of care (29.68%), communication openness (32.50%), teamwork across units (41.22%), feedback & communication (47.23%), management support for patient safety (50.00%).

Conclusion: The survey highlighted the strong and weak areas that can be helpful for the hospital's management to develop an effective

patient safety framework for their hospital. All barriers in developing patient safety culture in hospitals can be eliminated through training of staff and improving the communication among the staff and departmental heads. This paper highlights the usefulness of patient safety culture assessment of hospitals in Pakistan.

Title: Comparison of Stress, anxiety and depression in low and high achieving medical students

Authors: Muhammad Masood Khokhar

Institute: Islamic International Medical College, Riphah International University

Aims: Depression, anxiety and stress although quite common in medical students, all over the world but to the best of our knowledge and literature search, they have not been compared amongst low and high achieving medical students in Pakistan. The objective of this study is to compare them.

Method: The sample comprised of 160 medical students of Islamic International Medical College, Rawalpindi. Sampling was done by convenient purposive technique (top twenty and bottom twenty students from each of the MBBS class based upon the scores in their respective professional examination final result). For the purpose of comparison, the students were divided into low and high achieving groups. Low achieving group consists of students who obtained lowest marks in the respective professional examination and were placed at the bottom of class merit list. While high achieving group refers to students who obtained highest marks in the recent professional examination and were placed at the top of merit list. The age range of the participants was 20 – 25 year. The Depression Anxiety Stress Scale (DASS) was used to measure depression, anxiety, and stress. Data was analyzed using SPSS-20 and independent sample T-test was used to find the difference in

depression, anxiety, and stress between both groups of students.

Results: The difference between two groups regarding DASS scores was significant. The results revealed remarkable difference in low and high achieving medical students in terms of depression, anxiety, and stress. Levels of stress and depression were significantly high in low achieving students.

Conclusion: In conclusion, there exists a significant difference in levels of depression, anxiety and stress between low and high achieving medical students. The study provides an insight into the negative effects of psychological problems on students' achievement.

Title: Significance of Actually Drawing Microscopic Images and its Impact on Students' Understanding of Histology

Authors: Aisha Rafi, Ayesha Rauf, Muhammad Idrees Anwar

Institute: Shifa College of Medicine, Islamabad

Aims: To explore the impact of drawing on students' understanding of histology. To determine if students who draw images can score better than those who do not.

Method: Study design: Quasi experimental. Methods: This histological study was carried out during the Endocrinology and reproduction module (ENR) in January, 2017. There students were divided into two groups, A and B of 50 students assigned by random sampling. During the first half of the module Group A drew the microscopic image of the slide in the practical notebook as a normal practice. Group B was shown images only and the task of drawing the images in the practical note book was excluded. At the end of four weeks MCQ paper of 50 questions of higher order thinking to check their concepts of applied histology was given to students. For the next half of the module the groups were

flipped over by a cross-over design and Group A only saw the microscopic image and Group B drew the histological image. A second test of MCQs of higher level of application of knowledge was given at the end of four weeks.

Results: Analysis of data showed that there is no statistically significant difference between the mean scores obtained by the drawing group and non-drawing group ($p>0.05$) in both test I and test II. However there is a statistically significant difference in the mean scores of the same group when they draw the microscopic image and when they do not ($p<0.05$).

Conclusion: Drawing microscopic images has a positive impact on learning. The traditional teaching strategy for histology should be explored further by research to help curriculum planners to include drawing of images in the teaching of histology.

Title: Value of Students' Engagements in Curricular Reforms

Authors: Muhammad Farooq

Institute: Islamic International Medical College, Riphah International University

Objective: To explore the role of students' engagement in curricular reforms in a private medical college.

Method: Sixteen participants, 08 students and 08 faculty, were selected using purposeful homogenous sampling strategy. All the selected participants were the members of the college curriculum planning committee. For students 2x FGDs and for faculty in depth interviews were recorded, transcribed and imported to NVivo software for analysis. Thematic analysis was done to make the major themes.

Results: Six main themes were identified. The importance of curricular reforms was acknowledged and students' engagement was valued both by the faculty and students. Some limitations in accepting these suggestions were also recognized.

Conclusion: The study has emphasized the importance of student input in curricular reforms to eliminate the existing problems in it and faculty has fully valued these suggestions with few reservations.

Title: Reflective practice tool development; preliminary findings from pilot testing

Authors: Anbreen Aziz

Institute: Islamic International Medical College, Riphah International University

Aims: Reflective writing is in the process of establishing its significance in the field of modern medical education in Pakistan. AIM: To develop reflective practice questionnaire and to evaluate if reflective writing improves learning, helps in self-regulation and alters clinical behavior of house officers.

Method: This study was conducted at Islamabad Dental Hospital Barakahu in November-December, 2018. Three house officers participated in cognitive interviews and later newly formed questionnaire was distributed among sixteen house officers for pilot testing. These house officers had previous experience of reflective writing using Gibb's reflective cycle.

Results: Thirteen (81%) out of sixteen house officers agreed that reflective writing improves learning, helps in self-regulation and alters clinical behavior, two (13%) did not know about that and one (6%) did not agree to that.

Conclusion: Results of this pilot study using the newly developed tool show that reflective writing does improve learning, helps in self-regulation and alters clinical behavior in the selected house officers.

Title: Patient Safety Practices in Dentistry "A Top Priority

Authors: Yawar Khan

Institute: Islamic International Medical College, Riphah International University

Objectives: Patient safety is multifaceted,

complex and involves many key elements. In healthcare the concept of patient safety is not new. However it is still bit immature in dentistry as compared to medicine. The hostile nature of the dental environment and serious incidents happened makes it a top priority for dentists.

Method: Will provide an overview regarding the current practices of patient safety in dentistry along with barriers and challenges posted to the dental office. Unfortunately as compared to other health professions in this regards not much attention has been paid to dentistry.

Results: There are a lot of serious challenges being faced by the dentist in the dental office including biological, physical and other hazards. Lack of vision by the senior leadership and lack of resources are a few barriers identified which prevents the implementation of effective patient safety measures in the dental office.

Conclusion: Promotion of patient safety is an ethical obligation in any health care profession especially dentistry. There is a dire need of establishing a robust patient safety culture in the dental eco system as a foundation of success in the clinical dental environment.

Title: Factors causing failure in final Examination among the Medical students

Authors: Uzma Hassan

Institute: Rawal Institute of Health Sciences Islamabad

Aims: Academic failure of medical students is one of the major problems of higher education. Finding factors that influence their performance is essential to improve the overall success of students and to reduce failure among them. The study aims to identify factors causing failure in final examination among the medical students.

Method: A Descriptive Cross-Sectional study was conducted over a period of six months

from April to October 2018, at Rawal Institute of Health Sciences Islamabad. Using non-probability convenience sampling 100 students were interviewed by the researcher myself, with the help of a close ended questionnaire. Study was conducted after approval by ethical review board of the Institution. Proper consent was taken from the students and their confidentiality was assured. Questions were related to sixteen different variables which were the factors causing failure in final examination. Responses were noted with options as "agree", "disagree" and "neutral" and frequencies were calculated in percentages.

Results: Out of the total 100 respondents the percentages of students who "agreed" to the factors causing failure in the final examination were: Poor attendance (64%), fear of failure (64%), poor time management (84%), excessive use of social media (60%), lack of preparedness (70%), study at the eleventh hour (36%), habit of selective study (46%), unable to review the entire syllabus (84%), poor peer relationship (50%), behaviour of the teachers (86%), lack of motivation (76%), internal assessment (56%), less parent involvement (50%), students' poor health (76%), non-effective teaching methods (44%), and extracurricular activities (28%).

Conclusion: The study identified multiple causes of failure in final examination among medical students. Importance of academic failure of students and negative consequences should be given due significance. More precise and elaborate studies should be conducted on this topic so appropriate strategies be implemented in the Institutes to rectify the problem.

Title: Patient safety awareness among future health professionals in a Pakistani Medical College of Military set up

Authors: Rizwana Kamran

Institute: CMH Lahore Medical College, Lahore Pakistan

Objectives: To assess the patient safety awareness among undergraduate medical students (UGMS) in a medical college of military set up in Pakistan.

Methods: This cross-sectional study was done among the UGMS studying at "The CMH Lahore Medical College & Institute of Dentistry" in 2019. Participants were asked to complete "APSQIII questionnaire" about patient safety on 7 point Likert scale. Data was analyzed using SPSS version 22. T-test was used to compare the awareness of Patient safety.

Results: A total of 166 participants including 84 fourth year and 82 final year medical students completed the questionnaire with a response rate of 80%. 49% were female and 51% were male. The two out of nine domains regarding teamwork and long working hours scored the highest 6.0 mean score. "Disclosure responsibility" scored lowest 4.4 mean score followed by 'Professional incompetence as an error cause' (4.5) and "Error inevitability" (4.7). Patient Safety training received and Error reporting confidence domains obtained 5.0 mean score while "Importance of Patient Safety in curriculum" and "Patient involvement in reducing error" scored 5.5 and 5.3.

Conclusion: Students showed positive attitude towards patient safety. Most of them supported the integration of patient safety in an undergraduate medical curriculum. However there was a knowledge gap among students regarding causes and disclosure of medical errors. Due to insufficient awareness among future doctors, inclusion of the formal patient safety.

Title: Levels of Empathy Among Undergraduate Medical Students

Authors: Summon Basharat, Illeeyeen Khan, Bushra Nawaz, Namana Minhas

Institute: Islamic International Medical College, Riphah International University

Aims: Empathy is an important component of physician patient relationship. Previous studies show that empathy declines with clinical training and is also known to be gender dependent. Hence our study aims to analyze and compare the levels of empathy from all five years of MBBS program and difference between male and female students.

Method: A cross sectional study was conducted at Islamic International Medical College from January to March 2019. Sample size was calculated to be 220 using Raosoft taking 95% confidence interval. 44 students from each class were selected through stratified random sampling. Verbal consent of participants was sought before data collection. Empathy scores were tested using a pretested and validated tool, The Toronto Empathy Questionnaire and responses were scored between 0 and 64. Data analysis was done through SPSS version 21. Empathy Scores with advancing year of study were compared using ANOVA. Independent sample T-test was used to see the significance of difference between male and female students.

Results: The mean empathy score was 44.93. Out of 220 students, 119 (54%) had empathy below 45. 1st Year MBBS students showed highest levels of empathy (46.46) while almost equal empathy was shown by all other classes (44.15 in 2nd Year, 44.88 in 3rd Year, 44.73 in 4th Year and 44.45 in Final Year). There is no statistically significant association between empathy and year of study. In females, mean empathy score was 46.85 while mean score in males was found to be 43.01. The results show that there is a statistically significant association between empathy score and gender.

Conclusion: The findings of this study showed that 1st year medical students were more

empathetic than students in other years. Female students exhibited higher levels of empathy than their male counter parts. Low empathy scores are alarming and it is recommended that the curriculum needs to be revised to nurture empathetic attitude in undergraduates.

Title: Perception of mentoring among medical students of Islamic International Medical College

Authors: Husna Amjad Abbasi

Institute: Islamic International Medical College, Riphah International University

Aims: Mentorship is a mutual relationship between the mentor and the mentee. Our study purpose was to compare the perception of students regarding mentoring between preclinical and clinical years and to highlight the improvements suggested by the students for these sessions at Islamic International Medical College.

Method: A cross-sectional study was conducted among medical students of IIMC rawalpindi from January to March 2019. Sample size was 220, calculated by using Raosoft. Sampling technique used was stratified random which included 44 students (32 girls, 12 boys) from each year of MBBS. A self-constructed questionnaire approved by supervisors and ERC was used. It included questions on demographic details, perception, suggestions on improvements, preference of discussion topics and achievements of students after attending mentoring sessions. The data was analyzed by using SPSS (Version 21) and results were expressed in frequency tables and pie charts.

Results: Significant number of students were interested to attend mentoring sessions and considered them beneficial

Conclusion: Majority of students have positive perception and believe that mentoring is

useful for understanding basic beliefs and ethical values. Therefore, it is suggested to incorporate interesting topics in mentoring sessions of preclinical and clinical students according to their demand to get maximum benefit out of these.

Title: Evaluating the effectiveness of 'MCQ Development using cognitive model framework' workshop

Authors: Rahila Ali, Amber Shamim Sultan

Institute: Aga Khan University

Aims: Review of Multiple choice questions (MCQ) ensures its quality. It is observed that majority of the questions assess knowledge at recall level and do not follow the National Board of Medical Examiners guidelines. Our aim was to develop skills of constructing MCQs assessing higher cognitive levels using cognitive model framework.

Method: It is a quasi-experimental pretest–posttest study with Faculty of health sciences from Aga Khan University and other academic institutes. Participant satisfaction was evaluated using a 16 item questionnaire which was administered to faculty who participated in the workshop. Pretest–posttest was used to assess learning from the workshop participants. All candidates who sat the pre-test and post-test and participated in the entire workshop were included in the study. Data was analyzed using SPSS version 19. Frequency and standard deviations were computed. Pre and posttest scores were compared using independent sample and Paired sample t-test.

Results: There was significant difference in the overall pre-posttest scores of the participants with mean difference (-4.176 ± 4.83). A significant difference was observed in the mean pre-post test scores of junior faculty (-6.350 ± 4.5829 ; P value = 0.02). There was insignificant difference in the mean pre-posttest scores of senior faculty (P value =

0.666). The mean for pretest scores among junior faculty were significantly lower 4.950 ± 2.83 as compared to the senior faculty 10.417 ± 1.56 (P value 0.001). There was no significant difference in post test scores of junior vs. senior faculty (pvalue > 0.05).

Conclusion: Active participation in faculty development workshops would ultimately lead to enhancing skills of constructing one-best MCQs based on international guidelines. There is a need of conducting such workshops on a large scale so that we can compare the difference in pre-post test scores of faculty from diverse health sciences discipline.

Title: Self and Peer Assessment of Teacher's Attitude towards Teaching

Authors: Ambreen Ansar

Institute: Islamic International Medical College, Riphah International University

Aims: Teachers should assess various aspects within themselves and in the environment that influence their teaching, and determine obstacles impeding efforts to inculcate knowledge and skills among the recipients of education. Feedbacks from trusted observers are very useful to overcome shortcomings, 8, 9 and would also help to check the element of self-enhancement

Method: The attitude was assessed on the basis of 32 Likert-scale questions, which were constructed in the light of the literature review and input from the supervisor. Cronbach's alpha calculated was 0.832 after the data collection. A paper and pencil version of the scale was distributed to 12 medical departments, i.e. 100 medical teachers (MT) and 50 social sciences teachers (SST). The theoretical range of attitude scores was from 0 to 128; and teachers were divided into three categories: positive attitude (score on the self devised scale above or equal to 101), average attitude (score: 86-100), and below

average attitude (score 70-85).

Results: Out of the 150 (100 MT and 50 SST) questionnaires distributed, 91 teachers (53 MT and 38 SST) returned (61% response rate) the questionnaire on self-assessment of their attitudes. The same questionnaire was distributed to 150 teachers with the name of the peer to be reviewed by him/her from the same department for a peer assessment, out of which 59 (31 MT and 28 SST) were returned (39.3% response rate). The mean attitude score of all the teachers was 91.7 ± 11.6 which, according to operational definition, falls in average attitude category. No significant difference was found in teachers' attitudes.

Conclusion: Self-enhancement and fortification phenomenon was present in MT, especially if they were females and juniors which provide a room of improvement for the MT to work upon. They need to reflect upon their daily activities honestly and establish a more efficient communication with students.

Title: Evaluation of procedure-based assessment for assessing trainees' skills in the operating theatre

Authors: Fareesa Waqar, Wajiha Shadab

Institute: Riphah International University IIMCT Pakistan Railway Hospital Rawalpindi

Aims: PBA has been used for the first time during operation theater procedures to assess OBS/GYN post graduate residents' surgical procedural skills in performing elective caesarean section in the operating theatre. The aims were to evaluate the validity, reliability and acceptability of PBA.

Method: Purposive sampling was done. Fifteen post graduate residents of Obstetrics/Gynecology were assessed performing caesarean sections; 400 PBAs were provided across 413 operations by two clinical supervisors and four independent assessors. The PBA form contains a checklist of

competencies and a global summary. Three PBA domains corresponding to preoperative preparation, exposure and closure, and intraoperative technique were completed on check list using a binary scale of satisfactory or unsatisfactory/development required. The global summary score (GSS) is an overall judgment of the trainee's ability to perform the observed parts of the procedure on that occasion using a four-level rating scale

Results: All the PBAs were completed after direct observation of trainees' surgical skill. This study generated results providing evidence that PBA possesses good construct validity. Construct validity was demonstrated by correlation of PBA scores with measures of surgical training and experience. Reliability (G exceeding 0.8) of the adjusted total item score and global summary score for a given procedure was achieved using four and three assessor judgements respectively; assessing a mix of procedures required more cases/assessors because performance is procedure specific. The acceptability of PBA for assessment and feedback within surgical obstetrics training was predominantly positive among clinical supervisors and trainees.

Conclusion: PBA demonstrated good overall validity, acceptability and exceptionally high reliability. The prime purpose of PBA is as an assessment for learning and the emphasis should remain on the feedback component. Thus, PBA must be integrated into training for assessing actual surgical performance. Trainees should be assessed adequately for each procedure.

Title: Cultural Competency in health care; A qualitative Study

Authors: Saira Afzal

Institute: King Edward Medical University Lahore

Aims: Cultural competency in health care implies that health care providers have ability

to understand and work effectively with the patients belonging to different cultures. Understanding the beliefs and values of different culture are as important as understanding biomedical patho- physiology underlying disease process.

Method: The cultural competence in local context was explored in three tiers of health system that is primary, secondary and tertiary levels. Phenomenology, constructivism approach was used. The triangulation was performed for data obtained from different sources. Thematic analysis was performed. Manual coding was employed to generate themes, and subthemes. Verbatim were reported.

Results: Consisted of themes, subthemes, categories and subcategories. Verbatim were also quoted in results. Cultural themes were Parada or veil issues, transgender discrimination, aggressive issues, encounters with opposite gender.

Conclusion: The awareness about cultural competence was satisfactory among public sector physicians. Modus operandi was not uniform and required standardization

Title: Association between empathy and emotional intelligence of Doctors

Authors: Muhammad Zeeshan Rana

Institute: Riphah International University, Islamabad

Aims: Empathy and emotional intelligence strongly influence doctors' performance. It is also important for patient satisfaction and better health outcome. Aim is to study how empathy and emotional intelligence are associated among doctors and their gender differences? Understanding the association between EI and empathy can help develop better strategies for training.

Method: Two self-reporting online questionnaires were emailed to 340 willing

participants who were practicing doctors utilizing convenience sampling technique: Trait Emotional Intelligence Questionnaire-Short Form (TEIQue-SF) and Jefferson Scale of Physician Empathy -Health professional version (JSPE). Responses to items of both questionnaires were recorded on Likert scale. Permission for use of these questionnaires have been sought from relevant authorities. Exclusion criteria includes doctors who did not response to questionnaire invitation email. Anonymity and confidentiality of participants were guaranteed.

Results: There is positive correlation between empathy and Emotional intelligence ($r=0.775$, $p<0.01$). There is weak positive correlation between empathy and specialty of doctors ($r=0.366$, $p<0.01$). Empathy being stronger in doctors who specialize in people-oriented specialties. No correlation is observed between Emotional intelligence and specialties of doctors ($r=0.113$, $p<0.01$). There is no effect of gender on either emotional intelligence and empathy. There was no significant difference between genders of TEIQue-SF and JSPE scores using independent sample T test.

Conclusion: Empathy and EI are strongly associated. There is no significant difference in EI and empathy between genders. The doctors associated with patient-oriented specialties have significantly higher empathy. Empathy and EI should be included in the educational objectives and be assessed using different sources such as self, patients, peers and teachers.

Title: Knowledge, Attitude and Practices of Physical Therapists Regarding Evidence Based Practice.

Authors: Huma Riaz, Zoya Mehmood, Asmar Fatima, Bintal Wajeel

Institute: Riphah International University

Aims: The practice of Physical therapy has

advanced over the years, so usage of evidence has become dire need in effective and thoughtful clinical decision making. To determine knowledge, attitudes and practices of Physical therapist towards Evidence Based Practice (EBP) and to identify the perceived barriers for EBP.

Method: A descriptive Cross sectional survey was conducted over the period of 6 months. Physical therapists ($n=203$) had completed self administered questionnaire. Purposive sampling technique was used for data collection. PT working in public, private and personal clinical set ups of twin cities, having at least 6 months of working experience were included. Whereas those with only academia experience were excluded. Structured questionnaire used comprised of 38 questions about demographics of participants, their practice setting, knowledge, attitude, practices and perceived barriers to use EBP. The response was taken on 5 point Likert scale. Data was analyzed using SPSS version 20.

Results: The response ($M\pm S.D$) for EBP knowledge questions was; Clear understanding (4.1 ± 1), question formulation ($4.2\pm .9$), Medical search engine familiarities ($4.2\pm .9$), CPGs available ($1.3\pm .4$), CPGs accessible ($1.2\pm .4$). The response ($M\pm S.D$) for attitude based questions about EBP was; necessary to apply ($4.3\pm .8$), useful in daily practice ($4\pm .9$), unreasonable demand (2.9 ± 1.1), interested to improve EBP skills ($4.2\pm .9$), improves quality patient care ($4.3\pm .8$), helps in decision making ($4.9\pm .8$). Some PTs have reported that they use CPGs ($3.8\pm .8$), implement EBP in daily practice ($3.8\pm .8$) and have increased patient satisfaction ($3.9\pm .9$). Insufficient time is most (63.1%), inability to apply on patients with unique characteristics is less (51.2%) and lack of interest (42.9%) is least perceived barrier to EBP.

Conclusion: Majority of Physical therapist have

good knowledge and complete understanding of EBP terms. They showed strongly positive attitude for various aspects of evidence based practice. But implementation in daily clinical practice is somewhat limited. Some highlighted time constraints as most perceived barrier to EBP.

Title: Application of Community Oriented Medical Education in controlling outbreak of Acute Watery Diarrhea (AWD) : Abbottabad 2018

Authors: Eisha Mansoor, Muhammed Farooq , Naila Azam, Tahir Butt

Institute: Army Medical College, Rawalpindi

Aims: First week of August 2018 saw 3216 cases of AWD in Abbottabad against a usual average of 300/week. Masses were advised to use boiled water till outbreak is controlled. As hospitals got overloaded and using boiled water endlessly for the whole city became difficult, investigating source of contamination became inevitable.

Method : We carried a community based study of water supply system of Abbottabad starting from Kalapani spring in Thandiani to the point of use. Water samples were collected at each level. A spot map was made of all the cases and tallied with the supply zones of each of 4 water reservoirs. A case control study was conducted to find association of AWD with water consumption from any specific reservoir. The water disinfection process at the suspected reservoir was studied in detail and key persons were interviewed to determine the cause of compromise in water quality which precipitated the outbreak of AWD.

Results: Spot map showed clustering of cases in areas of supplied by water from reservoir "A". Water samples taken from reservoir A confirmed presence of E.Coli. The odds of consuming water from reservoir A were 23 times among cases as compared to controls

(OR=23.4, 95% CI= 21.9-24.6). The newly employed motor pump operator at reservoir A had not received any training in water disinfection procedure. Chlorine demand of water was not calculated as per guidelines. An empirically estimated amount of bleach solution was occasionally poured in water in reservoir "A" with a mug despite the availability of a functional chlorine dosimeter.

Conclusion: Outbreak of AWD occurred due to inadequate disinfection of water at reservoir "A" due to lack of training of operating staff. This resulted in 3216 cases of AWD and loss of Rs 5 million to the government. Situation was effectively controlled utilizing epidemiological skills acquired by community oriented medical education.

Title: Staging of major mood disorders

Authors: Ather Muneer

Institute: Islamic International Medical College

Aims: Major psychiatric disorders are found to have staged progression, from early pre symptomatic state to full blown clinical disorder and ending in a residual stage with permanent deficits in social and psychological functioning.

Method: The PubMed electronic data base was comprehensively scrutinized by using a variety of search terms, for example, major depressive disorder and staging, bipolar disorder and neuroprogression, mood disorders and allostatic load, etc. In order to incorporate the latest findings the search was limited to the last 10 years. Both original articles and review papers were included. Abstract of more than a 100 articles were read and those found to specially pertinent were read in full and their reference lists were also consulted.

Results: An increasing number of papers were published in recent years and the notion of staging major psychiatric disorders, most

importantly mood disorders was gaining impetus. Staging formats were found for both bipolar disorder (BD) and major depressive disorder (MDD), with the caveat that many more papers were discovered for BD. There was emerging evidence that both principal mood disorders were characterized by staged progression from an early at risk stage to full blown clinical syndrome and finally a late stage with lasting impairments in biopsychosocial realms of functioning.

Conclusion: Major mood disorders are classifiable into early, intermediate and late stages. These phases inform the management and prognosis, so that clinicians must incorporate the schema into everyday practice for improved outcome

Title: Attitude of Medical Students towards Patient Safety – A comparison between Annual and Module System

Authors: Zuhair Ali Rizvi

Institute: Rawalpindi Medical University

Aims: Patient safety is an essential healthcare discipline that has reduced rate and effects of adverse events. The aim of this study was to compare attitude towards patient safety of medical students studying in annual system with module system.

Method: This cross sectional study was conducted was conducted for a period of 6 months in Rawalpindi Medical University (RMU) after ethical approval from Institutional Research Forum of RMU. A total of 400 medical students of RMU were included in this study using Randomised Stratified Sampling Technique. Out of total 400 sample size, 200 (50%) were included from Annual while 200 (50%) from Module System. A validated questionnaire Attitude towards Patient Safety Questionnaire (APSQ-III) was administered. Variables like gender, year of study, mode of teaching and responses to questions were

noted. Data was entered and analysed using SPSS v20.

Results: Overall Mean score of included medical students was 87.70 ± 19.41 for positively structured questions, 32.30 ± 6.29 for negatively structured questions. Mean Score of students with Annual System was 78.76 ± 17.96 for positively structured questions while 31.66 ± 6.27 for negatively structured questions. Mean score of students with Module system was 97.06 ± 16.26 for positively structure questions while 32.96 ± 6.26 for negatively structured questions. Difference in mean scores between Annual and Module system was statistically significant with $p < 0.000$ and 0.041 respectively for positively and negatively structured questions.

Conclusion: Attitude of medical students studying in Module system towards patients was better than students studying in Annual system.

Title: Concept assessment about core values of professionalism in Doctor of Physical Therapy students by Exploratory Factor Analysis

Authors: Saira Waqqar

Institute: Riphah International University

Aims: Professionalism is an ethical phenomena with a combination of competence, moral values and standard practices. A Physical therapist must exhibit core values of professionalism during practice. The purpose of this study was to determine the concept of professionalism's core values among Doctor of Physical Therapy (DPT) students

Method: The study design was cross sectional survey that was completed from September 2017 to January 2018. Total number of final year DPT students was 387. Age range of participants was from 22 to 28 years. Purposive

non-probability sampling techniques was used to collect the sample. Data was collected from multiple private & public sector institute across country offering DPT program. Data was collected through reliable and valid 22 items based questionnaire i.e. professionalism assessment scale. Exploratory factor analysis was done through SPSS version 21.0

Results: Eight factors were extracted under three headings: Empathy & humanism (Prejudices, Respect, Empathy), Evidence based Practice (follow standard practices, Individual patient care & value patient's interest) and social responsibility (Dedication, Social care). According to the DPT students, important components of professionalism during practice and their variance were individual care (3.4%), Equity (3.6%), role model (4.4%), honesty (4.5%), altruism (6.6%), respect for others (7.3%) and adjustment rule abiding (9.3%). Prejudices, confidentiality, skills, punctuality, patient's appearance, management, commitment & mood were less important with variance of 51.3 % 48.6%, 35.3%, 29.6%, 15.5%, 13.5% and 12.4 % & 12.8% respectively.

Conclusion: According to DPT students less important core values of professionalism during practice were following e.g. Prejudices, punctuality, and provision of proper plan of care, hand-on skills and confidentiality of information. There is a need to reform the DPT curriculum by adding the underdeveloped core values of professionalism.

Title: Changes required for the Contemporary Dental Curriculum

Authors: Gul Muhammad

Institute: Riphah International University

Aims: PMDC is all set to introduce new Dental Curriculum at Undergraduate level. The qualified Medical Educationists with academic background of BDS or equivalent are in better

position to suggest the upcoming reforms. The recommendations will be brought to PMDC for information and implementation.

Method: Qualitative Study Semi Structured Interviews from participants of the committee members already notified by PMDC as well as representation from all four provinces. The eligible volunteers must be Assistant Professor or above, with Dental as well as Medical Education background while holding an administrative position. Identification of Themes with Data Generation and Analysis will be done with the help of NVIVO.

Results: The results will help in designing of the new curriculum and will be a guiding block for all the stakeholders on board. The topics and methodologies from people at administrative positions in different corners of the country will develop consensus on the implementation of suggested reforms. The results will also help designing of the new curriculum at a faster pace. The results will identify key areas for electives as well. Moreover, the results will identify proper assessment patterns in our local context with representation of Senior as well as Junior Faculty Members.

Conclusion: The research will help all the stakeholders in bringing an up to date crisp curriculum at par with International Standards. This document will also be focus of attention for the designated committee members. Moreover, the efforts will bear fruit in generating consensus on the International Standards in local context.

Title: "Cognitive Peer Coaching" A workplace based faculty development approach": A Qualitative study

Authors: Madeeha Rehan, Raheela Yasmeen

Institute: Riphah International University

Aims: "Cognitive peer coaching" is an emerging faculty development approach in medical education and is significant for its

potential benefits in problem-based learning (PBL). Aim: To explore the factors affecting the learning process of novice PBL facilitators trained through “Cognitive Peer Coaching”- a workplace-based faculty development approach

Method: It was qualitative study of phenomenological design. Participants (15) were given orientation about cognitive peer coaching through workshop and seminar. Novices were trained by experts following six steps of cognitive apprenticeship theory which are modeling, coaching, scaffolding, articulation, reflection, and exploration provided in different phases of peer coaching cycle including pre-observation, observation and post-observation phase. Two data collection instruments; observation checklist and semi-structured interviews were used. Multiple data collection sources comprising of observation notes, reflective journal and audio-recordings of reflections and interviews were used. Semi-structured interviews taken from novice participants were transcribed and thematic analysis was done manually.

Results: During “Cognitive Peer Coaching”, modeling, coaching, scaffolding and articulation resulted in conscientization, perspective transformation about the role of facilitator and identification of the effect of body language on student's learning. Experiential learning led personal development in generic skills, awareness about loops in facilitation skills, enhancement of intellectual capacities and designing of effective facilitation strategies. During reflection, facilitators experienced mental growth spurred from within leading to self-complacency. Autonomy, effective coaching strategies and attitude of coach augmented intrinsic motivation of novices.

Conclusion: In conclusion “Cognitive Peer Coaching” is a dynamic and facilitative process

significantly contributed to the learning of facilitation skills from psychological, emotional, and social perspectives. It should be implemented in educational institutions. Future research is required to develop standardized methods for cognitive peer coaching for PBL facilitation.

Title: Gender-wise differences in perceptions of first year MBBS students regarding their institutional learning environment in integrated vs. traditional curriculum by using DREEM

Authors: Tatheer Zahra, Mohammad Iqbal Khan

Institute: Shifa College of Medicine (SCM); Shifa Tameer-e-Millat University (STMU)

Aims: Learning environment has considerable impact upon students' learning. DREEM survey is a valid and reliable tool for measuring the institutional learning environment. Our aim was to compare the gender-wise distribution of first year MBBS students' perception regarding their institutional learning environment in integrated vs. traditional curriculum by using DREEM inventory.

Method: In this cross-sectional study, after seeking written informed consent, paper format English version of Dundee Ready Educational Environment Measure (DREEM) questionnaire was administered to both male and female first year medical undergraduates of two different medical institutes A and B of Rawalpindi/ Islamabad region of Pakistan with integrated and traditional medical curriculum respectively. Data was analysed by using SPSS version 24. Descriptive and inferential statistics were applied. Results were considered to be significant at $p\text{-value} < 0.05$.

Results: There was no significant difference in mean global DREEM scores and five sub-scales perceptions among both males and females of

institutes A and B. However, the mean global scores, SPOL, SPOT, SASP, SPLA sub-scales scores of the males from the institute A were higher than their counterparts from institute B. Similarly, the mean global scores and all five sub-scale scores of the females of institute A were slightly better than those of institute B.

Conclusion: There was no statistically significant difference in gender-wise distribution of first year MBBS students' perceptions regarding their institutional educational environment in integrated vs. traditional curriculum by using the DREEM inventory at 2 separate institutes of Rawalpindi/Islamabad region of Pakistan. However, students in integrated curriculum perceived their environment more positively.

Title: Exploring the digital divide between medical students and medical teachers

Authors: Mashaal Sabqat, Rehan Ahmed Khan

Institute: Riphah International University, Rawalpindi

Aims: People from different generations approach learning in varied ways. The generational differences between medical students and teachers of today can result in inefficient knowledge sharing. This study aims to delve into one aspect of this, i.e. to compare the familiarity and use of Web 2.0 technologies in the aforementioned groups.

Method: Instruments from other similar studies were used to develop a paper-based quantitative questionnaire administered to 128 students and 63 teachers at Foundation University Medical College, Rawalpindi. The data was analyzed via SPSS.

Results: A digital divide of complex nature was found to exist between medical students and teachers. Both the groups were found reasonably well exposed to Web 2.0 technologies. However, the teachers use these tools for educational purposes more often as

compared to the students.

Conclusion: Web 2.0 technologies have the potential to revolutionize medical education. However, this potential will only be achieved if there is increased training of both students and teachers in how to use these technologies to enhance teaching and learning.

Title: Characteristics of learner's associated with creativity and roles of teachers; Time to move from past to future by making present creative: A Scoping review

Authors: Uzma Urooj, Raheela Yasmin, Rehan Ahmad Khan

Institute: Riphah International University Al-Mizan campus Rawalpindi

Aims: This scoping review aims to broadly examine the literature about the importance of creativity in education, its definition, role of teachers and learners in promoting creativity and its implications. The study will help in shaping the Teaching & learning methods to foster creativity in our context and culture.

Method: The following research questions were derived to answer central question for scoping review: (1) How is creativity defined? (2) What is the role of teachers, learners and universities in creativity? (3) What are the implications of creativity in education? (4) What are the emergent areas for research? The literature published in last 10 years was searched in three databases: PubMed, ERIC and Google scholar. The search terms included; Creativity, Creativity and education/creative learners/higher education/ innovation/ creativity and Islam/creativity in Asian countries. The research yielded 3506 articles from which 27 were selected after applying inclusion and exclusion criteria and following PRISMA.

Results: The personality traits of creative learners found in literature were: Risk taking in 9 studies(33.3%), self-efficacy (22.2%),

flexibility (29.6%), self-actualization (14.8%), motivation (33.3%), autonomy (22.2%), adaptability (11.1%), self-development (3.7%), vision (7.4%), habit breaking and boundary breaking (3.7%), openness (18.5%), critical thinking (25.9%), leadership (18.5%). A teacher can promote creativity by modeling how to tackle problems, asking divergent questions, encouraging students to ask questions, giving new problems & inspiring new solutions. Among many constraints regarding application of creativity in education one was assessment method. In healthcare, where's creativity? 3(11.1%) studies highlighted the need to generate new ideas to improve medical practices.

Conclusion: A multi-level analysis is needed to fully understand the important variables in creativity especially in in healthcare education. Academic medicine should explore ways to maximize creativity and innovation in the curriculum as it is the engine of discovery. Creativity is now considered as one of the important skills of 21st century.

Title: Necessity of Accreditation Standards for Quality Assurance of Doctor of Physical Therapy Education Program in Pakistan

Authors: Saira waqar

Institute: Riphah International University

Aims: Quality assurance and accreditation of medical schools is in practice worldwide. Accreditation bodies use Standards to assess the compliance of program for recognition. The purpose of this study is to emphasize upon the necessity of development & implementation of accreditation standards of Physical Therapy (PT) Education program in Pakistan

Method: The study reviews selected search result retrieved from multiple databases using certain keywords (accreditation, educational standards, physical therapy, education). The databases used are Google Scholar, ERIC,

Elsevier, PubMed and websites such as those of WFME, Capteonline, Physiocouncil and WCPT. As per the inclusion criteria full text articles, guidelines, editorial paper, short communications & congress reports related to accreditation standards of physical therapy education program were included in the literature review. Review of accreditation literature in English version was conducted from 2010 to 2019. Twenty seven studies which met the search criteria by empirically examining accreditation and educational standards were selected

Results: In Pakistan currently, no educational standards exist for accreditation of PT educational program. Consequently, PT profession is facing mushrooming of institutions offering substandard education in the country. It had also resulted in lack of harmony in professional practices & standardization of degree institutions in Pakistan. The community of PT professionals asserts that a regulatory body must be constituted which shall not only regulate the practitioners but will also standardize entry level education in the PT institutions across the country. WCPT and Govt. of Punjab has recommended the stake holders to develop appropriate PT entry level education standards for accreditation

Conclusion: Accreditation is a powerful advantage for organizational change and improvement. It is the need of hour to formulate the Physical Therapy education standards of accreditation. It is important that all efforts be joined in this attempt to create effective and reliable instrument for quality assurance of PT Education in Pakistan

Title: Different Concepts and Practices of Feedback in Undergraduate Dental Education in Pakistan

Authors: Sadaf Humayoun

Institute: Rawal Institute of Health Sciences

Aims: Feedback is considered an important aspect of an educational experience. It has been found that problems have been encountered to understand and assimilate feedback by the students in undergraduate dental institutes of Pakistan. They have different perceptions regarding feedback, leading to unfavorable educational outcomes.

Method: This cross-sectional, questionnaire-based study was conducted in Rawal Institute of Health Sciences (RIHS). A total of 159 dental students composed of 107 females and 52 males from different levels of the undergraduate dentistry (BDS) program participated. The data was organized and mean value, standard deviation and proportion were used to quantify the quantitative and categorical study and outcome variables.

Results: Feedback practices were found to be occurring in this traditional environment, although they were not readily identified as 'feedback' by participants. The conceptions of students were varied, and the linguistic association of the word 'feedback' with educational practices had similarities and differences with the western-centric conceptions of feedback. The majority of students (80%) realized the importance of feedback and expressed its need during their study. Senior students perceived that they received less formal feedback than their junior colleagues ($P < 0.05$). Majority of the students expressed an interest to include a suggested learning plan for their future learning progress.

Conclusion: It is described that students are mostly devoid of formally instituted feedback practices. They have understandings and practices, both similar and dissimilar in nature to often described in western-centric literature. Formal education about the phenomenon of feedback and training of its appropriate use may help streamline the educational process.

Title: Problems faced by female Surgeons during training and Consultancy

Authors: Faryal Azhar, Tausief Fatima

Institute: Rawalpindi Medical University

Aims: The first female British surgeon, Margaret Ann Bulkley (1795 – 1865), spent her entire career pretending to be a man named James Barry. King Henry V forbade females to become surgeons. The purpose of this study is to explore the problems faced by females during their fellowship training.

Method: This study was conducted during the period of 3 months in different hospitals of Lahore and Rawalpindi/Islamabad. Purposive sampling was done. The data was collected by in-depth interviews. The female consultant surgeons with at least 3 years post fellowship experience was interviewed. The data was triangulated and analyzed using NVivo.

Results: Female surgeons are facing challenges during their career. There is obvious femininity discrimination. The barriers are there in achieving academic excellence. Mistreatment at workplace is another challenge. Gender prejudice is major component at workplace.

Conclusion: The pathway to become a female surgeon is full of thorns but if more and more females will choose the way, it will make life easy for female surgeons. We must use numerous strategies to reduce the gender bias in Surgery.

Title: EPAs for Radiology Clerkship; A modified Delphi study

Authors: Bushra Nayyar

Institute: Riphah International University

Aims: Standard undergraduate radiology education is essential to prepare graduates for multidisciplinary practice yet literature lacks clear guidelines or consensus about learning objectives of an optimal radiology clerkship. This study aims to define a competency based framework for undergraduate radiology education by using language of Entrustable

Professional activities.

Method: A modified Delphi method with three iterative rounds was used as an expert consensus approach. An online questionnaire with 5 point Likert scale was formulated incorporating EPAs and their components (competencies, assessment strategies and supervision levels). This was distributed to 45 consultant radiologists selected via purposive sampling, following pilot study. Items reaching consensus in first round were accepted and rest were resend in round 2. In round 3, a dichotomous scale was used for final approval of items and to see response stability.

Results: A final set of 6 EPAs with 87 competencies and respective assessment strategies, all aiming for level "3a" of supervision was identified (performing under indirect supervision, supervisor checks all findings). These include recommending cost effective appropriate imaging tests for common pathologies, obtaining informed consent for contrast studies, basic interpretation and communication of results of common pathologies/emergencies on radiographs (chest, abdominal and skeletal) and on CT brain. The study had high response rate (71.1, 87.5 and 89.2 percent for respective rounds) and reliability coefficient (Cronbach's alpha of 0.98, 0.81 and 0.86 for respective rounds) along with response stability at end of rounds.

Conclusion: The EPAs identified from this study can be envisaged as a core component of undergraduate radiology curriculum and can be linked to current clerkship objectives. By designing these EPAs, a step is moved towards competency based approach to undergraduate radiology training and assessment.

Title: The importance of Post hoc item analysis in assessing quality of an exam

Authors: Madiha Sajjad, Samina Iltaf, Rehan

Ahmed Khan

Institute: Riphah International University

Aims: Post hoc item analysis includes evaluation of difficulty index, discrimination index and distractor efficiency of individual MCQ items. This serves to ensure quality of exam. The aim of the present study was to assess the quality of an examination through post-hoc item analysis.

Method: A post-hoc item analysis was conducted for 3rd year MBBS midyear high stakes assessment. A pre hoc quality check of the items had been done prior the exam. A total of 181 items were analysed, 106 of them having 5 options to choose from and 75 items with 4 option choices. Descriptive as well as inferential statistics were used to analyse the data.

Results: The results showed that the reliability coefficient of the exam was good (0.88). 80% items were in acceptable range of difficulty level (144/181). The discrimination index of 57% items was in acceptable range. 43% (77/181) had poor discrimination index with 10% (18/181) showing negative discrimination. A total of 649 distractors were present, 424 from 5 option choice items and 225 from 4 option choice items. Distractor efficiency was high (100%) in 54 item, moderate (ranging from 50-75%) in 92 items and less than acceptable (0-33%) in 35 items.

Conclusion: This study highlights the importance of post hoc item analysis in providing valuable information to assess the quality of items. This serves to help modify items for banking, future test development and to detect errors in pre hoc analysis.

Title: The Reflection of Mentoring on Dental Students for Their Personal and Professional Development

Authors: Zain Gulzar, Annam Aziz, Arooj ul Hassan, Zunaira Arooj

Institute: Institute of Advanced Dental

Sciences and Research

Aims: The aim of the study was to investigate dental students perceptions of mentor groups as an instructional method to facilitate students' reflection in terms of the strategy's learning potential, role of the mentor, group dynamics, and feasibility. Continuity in mentorship helps students to reflect on and recognize their own professional development.

Method: At University Dental Hospital, The University of Lahore, dental students were encouraged to reflect on their clinical experiences and personal development in reflective mentoring session. Sessions were guided by mentors to establish a safe environment, frame clinical discussions, and stimulate reflection. Students perceptions of the experience were assessed with a 17-statement questionnaire followed by four themes (learning potential, role of the mentor, group dynamics, and feasibility) with response options on a five-point Likert scale (1=totally disagree to 5=totally agree). All the students were asked to complete the questionnaire. Completed questionnaires were collected by the mentors and returned to the principal investigator.

Results: A total of 250 students returned questionnaires, resulting in response rates of 68% respectively. The responses showed that the students were neutral to positive about the statements related to learning potential with the result of 73.73 % for all four years. In general, the students agreed on the importance of the mentor's role during reflective mentoring group sessions with the result of 73.87 %. All statements about group dynamics aspects were perceived as beneficial for reflections with 70.37%. The strategy used in the Mentoring sessions and the feasibility was perceived as neutral to positive with the total of 63.37 %.

Conclusion: This study described the use of group mentoring sessions as a strategy to facilitate reflective discussions about clinical experiences and personal development among the students is beneficial. Mentoring groups sessions were appreciated by the students along with the role of mentor and is potentially valuable approach in dental education.

Title: Do We Need To Care: Emotional Intelligence And Empathy Of Medical And Dental Students

Authors: Urooj Saleem, Muhammad Irfan, Ayesha Abdullah, Mifrah Rauf Sethi

Institute: Peshawar Medical College

Aims: Biomedical knowledge, though pre-requisite, needs to be supported by other important skills, in order to transform medical education and healthcare delivery. This study was thus planned to analyze the correlation between emotional intelligence (EI) and empathy in medical and dental undergraduate students.

Method: This cross-sectional correlational study was conducted at public and private sector medical and dental institutions of Peshawar, Pakistan from February 2015 to June 2017. Schutte Emotional Intelligence Scale (SEIS) & Davis' Interpersonal Reactivity Index (IRI) were used to assess emotional intelligence and empathy. The data was analyzed using SPSS-20. The p-value of <0.05 was considered significant when tests of significance were applied

Results: The mean age of the sample (n=2170) was 21.02±1.62 years. High level of EI (118.60±15.78) was reported in 1191 (54.9%) while higher empathy (63.24±14.24) was reported in 1115 (51.4%) students. Female medical students had significantly higher empathic behaviour and emotional intelligence than male students (p<0.05), while

no significant difference was found between male and female dental students. Medical students of private sector showed higher level of empathy as compared to public sector ($p < 0.05$), whereas dental students of private sector showed higher level of emotional intelligence as compared to public sector ($p < 0.05$). EI and Empathy had significant correlation ($r = 0.370$, $p = 0.000$).

Conclusion: The study showed that EI and empathy have strong correlation. Since higher levels of both have been reported in only half of the students, therefore, there is a need to work on EI of students to improve in their empathetic behaviour

Title: Doping Knowledge, Beliefs and Practices among Physiotherapists

Authors: Wajeeha, Ahsan Javed, Hafiz Muhammad Asim

Institute: University of Health Sciences, Lahore

Aims: As the physiotherapists are involved in fitness and performance enhancement the of regular athletes and their management is not possible without the proper knowledge of doping. This study focused on current knowledge of physiotherapists about doping and how much attention they pay to this serious issue.

Method: A cross sectional study was conducted among 390 physiotherapists working in different government and private hospital, private clinics and teaching universities in Lahore. Data was collected by convenient sampling technique; 369 respondents gave completely filled Performa resulting in response rate of 94.61 %. A self-administered Performa consisted of doping knowledge like have they studied the sports course, major source of information and different aspects related to doping i.e. prevention, prohibited list, anti-doping testing procedures and rules of violations, beliefs on

use of performance enhancement drugs by Modified Doping Use Belief (DUB) tool, and practice of these drugs.

Results: Among all respondents 46.9% were never studied sports course in neither in graduation nor in post-graduation and out of them only 35.5% have idea about doping, 44.5% have knowledge regarding banned substances and media was the main source of this information 84.8%. Majority of respondents showed positive belief of non-use of doping agents. Among all the respondents 76.2% and 70.2%, believed that Performance enhancements drugs should not be allowed to use at top level and at any level for all athletes. 94% had not been offered any doping agent and 85.1% had not any experience of banned drugs.

Conclusion: The study concluded that physiotherapists have low knowledge regarding doping, Despite this limited knowledge, they agreed that such practices should not be encouraged. Physiotherapists lack sufficient source of doping information so that educational institutes should start sports course as a part of curriculum and develop educational programs for doping prevention.

Title: Challenges to Medical Education Accreditation System affecting quality of under-graduate medical education in Pakistan

Authors: Abdul Waheed Khan

Aims: Mostly, private medical colleges, in Pakistan, are struggling with inadequate training facilities, adversely affecting clinical training of of future medical graduates. The aim of this study was to explore challenges to improving the accreditation system of the Pakistan Medical & Dental Council (PM&DC), affecting the quality of undergraduate medical education.

Method: It was a Qualitative, case study;

conducted at Islamic International Medical College, Rawalpindi, Pakistan, from March 2018 to August 2018. Qualitative data was collected through face to face semi-structured interviews and Focus Group Discussions. Interview questionnaire was formulated after thorough deliberation and expert validation. All interviews and FGD were audio recorded, transcribed, coded and analyzed manually, followed by thematic analysis. Sampling technique was Purposive, Non-probability, Maximum Variation Sampling and sample size comprised of 12 semi-structured interviews of senior faculty members, from various disciplines, both from public and private medical colleges, having previous inspection experience for accreditation of medical institutions.

Results: Thematic analysis revealed 42 codes, narrowing to 15 sub themes and four major themes. Mounting political influence leading to un-ethical practices in PM&DC, commercialism in medical education, weak regulatory capacity of the council, violation of rules/SOPs, lack of skilled inspectors, inspectors' inspection biases, weak inspection standards and lack of objective curricular assessment were few major challenges to the accreditation process of the PM&DC.

Conclusion: Since credibility and capacity of the PM&DC to function as a robust regulatory authority is at stake, therefore, there is utmost requirement at PM&DC level for reviewing its accreditation system/standards in line with credible accreditation systems being practiced globally.

Title: Effectiveness of Team based learning with High fidelity simulation on test performance of postgraduate students in clinical Pharmacology module

Authors: Nusrat Bano

Institute: King Saud Bin Abdulaziz University

for Health Sciences

Aims: Team based learning (TBL) is a technologically enhanced student centered yet teacher guided pedagogical approach, associated with improved student engagement, critical thinking and knowledge retention in complex courses. The present study reports the effectiveness of an improvised version of TBL with High fidelity simulation in postgraduate students in clinical pharmacology.

Method: The study was carried out in Jeddah campus of King Saud Bin Abdulaziz University for Health Sciences-WR. A within subject experimental design was used. Postgraduate students enrolled in clinical pharmacology (two credit hours module) were included in the study. TBL with high fidelity simulation (SimMan® and SimBaby® Laerdal) was used for five weeks followed by Test 1 (80 test items). TBL with case based application exercise (conventional TBL model) was used for the next five weeks, followed by Test 2 (80 test items). The scores of Test 1 and Test 2 were compared for knowledge and cognitive items.

Results: The difference in scores of the knowledge based (recall/core concepts) items in test 1 and test 2 was not statistically significant ($p=0.075$) however the overall score in test 1 (81.3%) was slightly better than test 2 (83.57%). There was a significant difference in test outcome of cognitive (analytical and application based) items ($p=0.021$) items in test 1 (88.1%) and test 2 (71.45%).

Conclusion: Test performance of postgraduate students was better in TBL with high fidelity simulation (used in application phase) compared to the conventional TBL model. Student centered and active class learning methods can be synergistically employed as TBL with high fidelity simulation with a prospect of improved test performance.

Title: Anatomy & Surgery: A love hate relationship

Authors: Sarah Khalid

Institute: Shalamar Medical and Dental College

Aims: Anatomy remains an integral component of medicine, Unprecedented integration, reduction in teaching hours and indecorous use of methodologies has had a negative impact on anatomical knowledge. The objective of the study was to analyze the perspectives of students, surgeons and anatomists towards clinical relevance and methodologies in anatomical teaching.

Method: The descriptive cross-sectional study was carried out at anatomy department of Shalamar medical & dental college, Lahore. A total of 700 surgeons, anatomists and MBBS students of private and public medical colleges of Lahore Participated in the study. Written informed consent was taken from the participants, self-administered questionnaire was distributed, frequencies and percentages were calculated and evaluated.

Results: According to the responses of the surgeons (65%) anatomy being taught in the pre-clinical years does not meet the clinical needs. 80 % of surgeons, 32% of undergraduates and 67% anatomists were in favor of vertical integration. 72% of respondents selected "cadaveric dissection" as the most beneficial method of anatomy teaching. Both the surgeons and anatomists were of the opinion that the time allocated to anatomy teaching was currently inadequate should be enhanced.

Conclusion: It was clearly established that students, anatomists and surgeons alike support guided, continuous and integrated anatomy teaching. The dissected cadaver remains the most powerful teaching resources and restructuring of the medical curriculum is the need of the day as perceived by all the participants.

Title: Continuing Medical Education in Cantonment General Hospital: Hurdling the first fence

Authors: Safia Khalil, Saadia Sultana

Institute: Cantonment General Hospital Rawalpindi

Aims: Background: Medical Education Department was inaugurated in Cantonment General Hospital, Rawalpindi in August 2018 to meet the PMDC criteria for establishment of a future medical college. Objective: To evaluate the effect of Continuing Medical Education Activities in Cantonment General Hospital in the first year of implementation.

Method: Materials and methods: This descriptive, cross sectional study was conducted in Cantonment General Hospital, Rawalpindi from 1st August 2018 to 30th September 2019. It was a census of all workers history of post basic training in the period under study. Response target was set at 85%. The analyzed components included venue of CMEs, no. of CMEs attended in the last year, course attendance in internal CMEs, attendance in internal CMEs by cadre, supervisory support, feedback on CME organization, finance and coordination & how CME could be improved. Data was analyzed manually on microsoft office excel.

Results: House officers were the target audience of CMEs in Cantonment General Hospital.

Response rate was 68% among house officers and overall response rate was 50%. A total of 14 CME activities were conducted which included quarterly BLS. There was limited part-time staff to organize CME and no allocated budget. Average attendance in CME was 19.7. Ninety three percent of house officers attended at least 3 CMEs. Most of the respondents were well motivated, n=20 (66.6%) had plan for further clinical excellence in upcoming year. Respondents believed that CMEs are useful to improve knowledge (21),

skill (9), and credit hours (2). Most of the respondents suggested improvements in organization and process.

Conclusion: Cantonment General Hospital has crossed the first barrier towards medical education.

Title: De'Javu: Relevance, Feasibility, Reliability and Validity of Islamic Perspectives in Medical Education of Modern Times

Authors: Mowadat Rana

Institute: College of Physicians and Surgeons, Pakistan

Aims: The paper deals with the origin and historical development of educational perspectives in Islam and discusses their sustainability and relevance in modern day medical education. A parallel is drawn between the scholarly contributions of monotheistic religions towards education and principles adopted by modern day medical education.

Method: Drawing from relevance, feasibility, reliability and validity principles the speaker discusses unique and innovative concepts of laying a holy curriculum, introduction of innovative methods of teaching / modes of information transfer, emphasis on experiential learning, maintenance of logs through unseen agents of the evaluator, formative and summative assessments regulated by the prophets, their progeny, and companions, as much as by the guides, internal and external evaluation in here and hereafter.

Results: The use of a system of a fair and efficient system of examination, certification of those who pass and fail, with detailed list of long term implications of the training, and completion of assigned tasks and results achieved is visited.

Conclusion: The paper highlights how these these apparently theological models have had philosophical and cognitive impact on a modern day medical educationist's though

processes and have influenced tools that appear modern, yet have roots in religious tradition of education.

Title: Perceptions of Muslim parents and teachers towards sex education in Pakistan

Authors: Amina Nadeem, Maryam Khalid Cheema, Sheharyar Zameer

Institute: Army Medical College, NUMS

Aims: First Pakistani study designed to assess the perceptions of Muslim parents and teachers towards sex education in Pakistan.

Method: A comparative cross-sectional, multi-centered study was conducted in Rawalpindi/ Islamabad region which extended over a period of three months, Oct – Dec 2018. A sample of 418 individuals was categorized into two equal groups, parents and teachers, utilizing uncontrolled quota sampling technique. A modified version of a structured, pre-tested and validated self-administered questionnaire was employed.

Results: A 273/418 surveys were returned. 160 (58.6%) were categorized as teachers while 113 (41.4%) were parents. 76.1% (n=86) parents and 64.4% (n=103) teachers responded affirmatively when asked whether they thought that age appropriate sex education should be taught in school. Majority believed that 'bullying prevention' and 'sexual abuse prevention' should begin being taught at Kindergarten – Grade 2 level. 'Pregnancy prevention' was least supported topic. Top perceived barrier related to teaching sexuality education (93.1% teachers; 77.9% parents) was that some parents did not want it taught in schools. 'Sexual abuse prevention' was identified as the top perceived benefit (85.8% parents; 90.6% teachers).

Conclusion: Our study reported existence of varied attitudes among Pakistani parents and teachers regarding sex education. Bullying prevention and sexual abuse prevention were among the most highly supported sexuality-

related topics while pregnancy prevention was least supported.

Title: How a Journal Club Course Changed Learners' Approach in a Medical Doctorate Program- an Analysis of the PhD Scholars' Perspective

Authors: Tania Shakoori

Institute: Center for Research in Molecular Medicine, University of Lahore

Aims: Background/Aim: A structured journal club course that counts towards the final assessment was introduced in a medical doctorate program course at King Edward Medical University, Pakistan. This study aims to explore its effects on the learning approach of PhD scholars.

Method: A qualitative study comprising of a focus group discussion, involving eight out of the total of thirteen PhD scholars was conducted in 2017. Focus group discussions were transcribed verbatim and codes and themes were identified using grounded theory. The findings were triangulated with data from teaching feedback forms of the course from all the thirteen PhD scholars from 2015 to 2017.

Results: The participants described an overall positive effect of the course on their learning, including development of critical and scientific thinking. They also reported improvement in their clinical and teaching practice. They attributed these to the interactive nature of the course, role playing as author while presenting the assigned paper in journal club, help from the study guide, interdisciplinary peer learning and the awareness that they were being graded on their performance.

Conclusion: A semester long structured journal club course that contributes to the final assessment may be an effective tool to teach medical doctorate students about the research process and critical appraisal skills.

Title: Pharmacy Students' Perception from their current Hospital Wards Rotations (HWR)

Authors: Najia Rahim

Institute: Dow University

Aims: To investigate the overall pharmacy students' perception about the effectiveness and utilization of their current hospital ward rotations to improve knowledge and skills of clinical pharmacist.

Method: A cross-sectional study was conducted from October 2018 to December 2018 using a survey instrument containing 21 items that was administered to obtain feedback from the final-year clinical pharmacy students of govt. and private universities. All the final-year pharmacy students who underwent clerkship training were invited to participate in this study. The obtained data were entered in SPSS V22.0 for analysis. Descriptive statistics and one-way ANOVA were performed.

Results: Of the 200 Pharm D students invited for this survey, 167 (83.5% response rate) completed the survey with the mean age of 22.58 ± 0.89 . 55.1% students from private university and 44.9% from government university. Most of the students responded moderately positive response (approximately mean score of 3.5). Students from different universities have significantly different response to some items of the questionnaire ($p < 0.05$).

Conclusion: Majority of Pharm D students who completed the survey were "moderately satisfied" with their clinical training program. Faculty or trainers should take more effort to demonstrate practice-based clinical training and provide patient-centered education to PharmD students during their hospital ward rotations.

Title: Determinants of Post Graduate Perception of Educational Environment at Liaquat University Hospital, Hyderabad/Jamshoro

Authors: Aatir H. Rajput, Muhammad Muneeb, Tahir Hanif, Abid Ali, Anam Shaikh, Moin Ahmed Ansari

Institute: Liaquat University of Medical & Health Sciences, Jamshoro

Aims: The educational environment is an important determinant of students' behavior and is related to their achievements. Various factors play a determining part in constituting students perception of educational environment. Aim of the study was to identify these determinants of post-graduate residents' perception regarding hospital educational environment at Liaquat University Hospital

Method: This cross sectional study was conducted at Liaquat University Hospital, Hyderabad/Jamshoro, in from May, 2018 to October, 2018 on a sample of 210 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 obtained data. Data was analyzed via SPSS v. 19.0 and MS Excel 2013.

Results: The mean score of PHEEM was found to be 96.32 ± 14.67 . Male gender, un-married status, rural dwelling, lower socio-economic class and training under male supervisors correlated with more positive perception of educational environment. Female students reported more negative perception of educational environment. Higher stress levels were also negatively associated with the PHEEM score.

Conclusion: After careful consideration, it can be concluded that many factors correlate with PHEEM scores and may determine student's perception of educational environment. Interestingly, a modifiable determinant (stress) is come forth in this research and future research needs to be conducted to see how stress alleviation affects perceptions of educational environment.

Title: Design, development & validation of an assessment tool for undergraduate medical students in Community Health Sciences rotation

Authors: Farhat Malik, Saima Ali

Institute: Peshawar Medical College

Aims: Medical educational has developed steeply and remarkably with the introduction of many new concepts to its portfolio. Training and tutoring have become more logical and meticulous with pedagogical principle and problem-based curriculum that enhances effective learning. Instructors have proceeded from problem identifier to problem solver. Tools lack in our part.

Method: A methodological study was carried out at Peshawar Medical College from October- 2017 to March- 2018, to evaluate the validity and reliability of an assessment tool through the three-stage process i.e Delphi technique. Certification from an institutional review board was obtained from Prime Foundation. The process was initiated by slot regulation, component development, questionnaire generation followed by judgment and analysis by the public health panel experts. Relevance; representativeness and transparency of each item were judged through Likert scale. Validity and reliability calculated in the final steps. Suggestions were incorporated for face validity. Data analyzed by SPSS Version- 21.

Results: The five-public health panel experts

were postgraduate degree holders with rich experience of 5- 20 years in teaching and curriculum development. Mean years of experience (14.2 Years) and SD +5.5 (n=5). Three Delphi rounds conducted to generate prospective 56 item assessment tool for undergraduate students. Rewording; elimination; modification, and suggestions incorporated reduced the list from 56 to 35 (24 in knowledge domain and 11 in skill) final items. Acceptable values of content validity ratio; content validity index with item and scale content validity index calculated. Percent agreement; kappa statistics and excellent Cronbach's alpha determined for knowledge and skills domains separately.

Conclusion: The findings support the face validity of the present research tool. Content validity and reliability were sufficient enough to evaluate the knowledge and skills of undergraduate students. Training regarding content validity and process of validation is highly recommended for the academic teachers, researchers and all those involved in teaching...

Title: Determining the Quality of Educational Climate across four Undergraduate Dental Colleges in Rawalpindi/Islamabad using The Dreem Inventory

Authors: Owais Khalid Durrani

Institute: Islamic International Dental Hospital, Riphah International University

Aims: To investigate the perception of current educational environment and to compare the learning environments of different dental educational institutions.

Method: It is a cross sectional study in which Dundee Ready Education Environment Measure (DREEM) Questionnaire; a measure of educational environment is used. It was carried out in 4 different dental colleges across Rawalpindi and Islamabad. The DREEM

questionnaire was administered to 1st, 2nd, 3rd and 4th year undergraduate students (n =380) in the academic year of 2013/2014. Data were entered and analyzed using SPSS version 20.0.

Results: Out of 400 students, 380 students participated in the study (response rate of 95%). The mean total score for the 4 institutions was 120 out of total score of 200. For institution A, the score was 125.4 ± 18.6 SD, for institution B, the score was 124.9 ± 21.8 SD, for institution C, the score was 119 ± 18.9 SD and for institution D, the score was 109.7 ± 24.2 SD out of a total score of 200. The average DREEM score of preclinical group was 115 and clinical group was 124 out of 200 for all the colleges.

Conclusion: Students in this study reported a positive perception of their educational environment in all 4 dental institutions and the domain scores were also satisfactory. Certain areas need further exploration and improvements, which should serve as a decision support mechanism for educationists in rationalizing their priorities for reforms.

Title: Motivation, cognitive and resource management skills: Association of self-regulated learning domains with gender, clinical transition and academic performance of undergraduate medical students

Authors: Maryam Khalid Cheema, Amina Nadeem, Mahnoor Aleem

Institute: Army Medical College, NUMS

Aims: Studies have associated self-regulated learning with better medical academic performance. However, limited data depicts inter-gender variabilities and differences between pre-clinical students and those undergoing clinical transition. Our study aims to bridge this gap.

Method: In this comparative cross-sectional study, Motivated Strategies for Learning

Questionnaire was administered to 550 undergraduate students of Army Medical College.

Results: 339/550 students responded. Reliability analysis was performed (Cronbach's $\alpha = 0.936$). Extrinsic motivation was higher than intrinsic. Use of cognitive, metacognitive and resource management skills was modest. Academic performance was weakly but significantly correlated with intrinsic goal orientation ($p = 0.031$), extrinsic goal orientation ($p=0.003$), elaboration ($p = 0.001$), time/study environment ($p=0.009$) and effort regulation ($p = 0.009$). Extrinsic goal orientation mean score was significantly lower ($p < 0.001$) for 3rd year students when compared with that of pre-clinical students. Females had higher task-value scores ($p = 0.009$) while males had higher self-efficacy ($p = 0.002$) and critical thinking ($p=0.012$) scores.

Conclusion: Study concludes that academic performance and self-regulated learning domains are weakly but significantly correlated. Students undergoing clinical transition have lower extrinsic motivation. Inter-gender variabilities exist in task-value, critical thinking and self-efficacy domains. This study opens up new vistas for educationists who should revise curricula, academic reward systems and pedagogy forms.

Title: Strengths, Weaknesses, Opportunities, and Threats Analysis of Integrating the World Health Organization Patient Safety Curriculum into Undergraduate Medical Education in Pakistan: A Qualitative Case Study

Authors: Samreen Misbah

Institute: Army Medical College, Rawalpindi

Aims: The purpose of this study was to conduct a strengths, weaknesses, opportunities, and threats (SWOT) analysis of integrating the World Health Organization

(WHO) patient safety curriculum into undergraduate medical education in Pakistan.

Method: A qualitative interpretive case study was conducted at Riphah International University, Islamabad, from October 2016 to June 2017. The study included 9 faculty members and 1 expert on patient safety. The interviews were audio-taped, and a thematic analysis of the transcripts was performed using NVivo software.

Results: Four themes were derived based on the need analysis model. The sub-themes derived from the collected data were arranged under the themes of strengths, weaknesses, opportunities, and threats, in accordance with the principles of SWOT analysis. The strengths identified were the need for a formal patient safety curriculum and its early integration into the undergraduate program. The weaknesses were faculty awareness and participation in development programs. The opportunities were an ongoing effort to develop an appropriate curriculum, to improve current culture of healthcare, and to use WHO curricular resource guide. The threats were attitudes towards patient safety in Pakistani culture.

Conclusion: The theme of patient safety needs to be incorporated early into the formal medical education curriculum, with the main goals of striving to do no harm and seeing mistakes as opportunities to learn. Faculty development activities need to be organized, and faculty members should be encouraged to participate.

Title: Empowering the students in Curriculum development

Authors: Isra Khan

Institute: Ayub Medical College, Abbottabad

Aims: A qualitative case study was done on 1st May, 2019 at Ayub Medical College, Abbottabad. The main aim was to explore the

difficulties faced in the current curriculum and student empowerment in the development of curriculum.

Method: Total number of participants were 100 which comprised of 75 students from 3rd, 4th and final year and 25 faculty members. 10 of the faculty members and 10 students were a part of the College curriculum planning committee and the remaining individuals were not. They were selected to hold good opinions and results regarding the topic under consideration. All the 100 individuals were provided with questionnaires comprising of a total of 5 questions which were later collected for evaluation.

Results: The importance of student empowerment in curriculum development was acknowledged and fully supported by all the 75 students. 19 faculty members were also in support with the exception of 6 faculty members, who had a few reservations and certain limitations were put forward by them.

Conclusion: The study has accentuated the importance of student empowerment in curriculum development to eliminate and annihilate the difficulties faced by the students and has brought forward a concept that can revolutionize the notion of curriculum planning.

Title: Assessment of professionalism in the local context: systematic literature review of assessment tools

Authors: Humaira Fayyaz Khan, Raheela Yasmeen, Shabana Ali, Tahira Sadiq

Institute: Islamic International Medical College, Rawalpindi

Aims: A systematic review of the tools available for professionalism was undertaken as it has emerged as a major competency for the undergraduate medical students to achieve as they exit medical college. The main consideration was to find out studies and tools

available on assessment of professionalism for learning.

Method: This literature review was performed following the recommendations of the preferred reporting items for systematic reviews and Meta-Analysis (PRISMA). The focus was to explore studies with key words such as “assessment” and “tools available for formative assessment of professionalism” by employing Haig and Dozier approach of Boolean commands “AND” and “OR”. Original and review article were retrieved from PubMed, ERIC and Google scholar from 2007 to 2017. The citations of the articles were considered along with exclusion and inclusion criteria. Article which were found to be mainly applicable were read in full and their reference lists consulted.

Results: The review describes the practices regarding development and validation of assessment instrument from first-hand research, reviews, quantitative and qualitative research studies. A total of 1,184 articles were screened. Out of these 740 articles which were full text and peer reviewed were screened. After title and abstract screen 454 articles were excluded and 286 articles were retrieved. Next 136 full text articles were studied and 76 were excluded and 45 during data extraction. Finally, only 15 studies met the eligibility criteria and were included. Main quality criteria and standards for developing an instrument of assessment of professionalism were identified.

Conclusion: This systematic review revealed a gap in assessment tool development due to unsatisfactory methodologies. Few studies reported “Content validity ratio”, “Content validity Index” and “Content validity scale” with “confirmatory factor analysis”. Future studies should give priority to improve the development process of a tool for assessment in the local context.

Title: The relationship between undergraduate teaching settings and MRCP outcomes

Authors: Hassan Baig

Institute: University of Aberdeen U.K.

Aims: British medical education sets high expectations internationally. The University of Aberdeen (UoA) is a highly ranking medical school in the UK. This research analysed the relationship between the hours spent within different clinical teaching settings and the pass rates of the MRCP (UK) Part 2 Clinical Examination (PACES).

Method: The total number of hours allocated for the teaching of clinical skills in UoA were coded for the academic year 2015/16. Data allocation was based on the year of study and the clinical setting in which the students were taught. Three parameters were identified for the teaching of clinical skills; Communication (C), Practical (P) and Ward-based (W).

Results: The cumulative number of hours spent teaching clinical skills in UoA over the five years was 3,353.8 (C: 25.8, P:68, W:3160). Stratification based on year of study showed the following hours were spent in each clinical setting: Year 1 (C:42, P:9, W:9), Year 2 (C:15.5, P:36.5, W:46), Year 3 (C:20.3, P:22.5, W:41), Year 4 (C:0, P:0, W:1792) and Year 5 (C:48, P:0, W:1272).

Conclusion: The UoA 'integrated' teaching technique reveals that an increased delivery of teaching hours within wards has resulted in a pass rate of 65.1% for the PACES exam. This score is significantly higher than 'other candidates' (non-UK trainees), who show a pass rate of 38.5%.

Title: Determining entrustable professional activities for Dental graduates: The Treasure Hunt

Authors: Munsara Khalid Khan

Institute: CMH Lahore Medical and Dental College

Aims: Background: During the past decade, there has been a paradigm shift in medical education from the problem-based learning to competency-based training. This has forced a new way of thinking of the way we evaluate the dental graduates and finally give them the right to handle patients independently.

Method: A cross-sectional study was conducted at CMH Lahore Institute of Dentistry. Convenient sampling technique was used. A questionnaire comprising potential 7 EPAs in Prosthodontics, 4 in operative dentistry, 1 in orthodontics, 2 in Endodontics, 7 in Oral surgery, 6 in Periodontology and 4 in miscellaneous category was used. The questionnaire was circulated among the 30 faculty members of CMH Lahore Institute of dentistry. The respondents were asked to grade the EPAs on a scale of 0–4 based on the importance of that activity as an EPA.

Results: Fifteen out of thirty activities had an average score of 3 or above and were shortlisted as EPAs for the fresh dental graduates. The following procedures were considered to be essential by the dental faculty: 1. Partial denture fabrication 2. Crown placement procedures 3. Filling a diseased or fractured tooth 4. Sealants 5. Atraumatic restorative dentistry 6. Tooth extraction 7. Scaling 8. History taking 9. Treatment planning 10. Diagnostic procedures 11.

Conclusion: There is a dire need to reconstitute the dental curriculum in line with the competency based training. This study is the first step towards determining the EPAs for the dental graduates before starting the house job.

Title: Learning to construct Case Cluster MCQ through Faculty Development workshop

Authors: Tahira Sadiq, Rahila Yasmeen

Institute: Islamic International Medical College, Rawalpindi

Aims: Teaching strategies like problem-based

learning had better impact on students if assessed through Case Cluster MCQs. Gap in literature was found that faculty was not trained enough. Aim is to assess the learning of knowledge and skill as a result of FD workshop on construction of case cluster MCQ.

Method: It is a quantitative, program evaluation study with one group pre and post program design. It involves the faculty members of basic and preclinical sciences. The intervention used was one day workshop based on adult learning principles, conducted on 75 faculty members, sampled through census sampling technique. Learning of knowledge was assessed in the form of MCQs and skill was assessed through NBME checklist for Case Cluster MCQs before and after the workshop. Data was analysed through SPSS and Statistical test applied was t test.

Results: Improvement in learning in terms of knowledge about construction of Case Cluster MCQs from pre-test (mean= 3.53/10, p=0.00) to post test (mean= 7.21/10, p=0.00) was highly significant. Skill was measured through hands on activity on construction of Case Cluster MCQ before and after the workshop, scored by observer on a checklist with 30 parameters. Significant improvement was found before (mean= 1/30, p=0.00) and after the workshop (mean= 19.3/30, p=0.00).

Conclusion: Faculty development programs like workshops improves in learning of knowledge and skill on a relatively new skill of Constructing Case Cluster MCQs.

Title: Impact of Video Session in Clarification of Concepts of Physiology

Authors: Shazia Ali

Institute: Islamic International Medical College

Aims: Feedback is a method by which one can judge or analyze the impact. So, the impact of video sessions on students learning can be assessed by taking feedback from students.

This present study was aimed to obtain feedback of students after teaching them physiology through video sessions

Method: A total number 153 medical students with informed consent were included in the observational study. Out of which 76 belonged to 1st year (group A) were given video session on Musculoskeletal module while 77 students belonged to 2nd year (group B) were given video session on Head and Neck module. Before the sessions each class had the interactive lectures on their respective modules. Both group A & B were given feedback forms (given in Annexure 1) to fill after 30 minutes of video session of their respective modules. Feedback forms were evaluated by calculating percentages of responses.

Results: Feedback response was assessed; the results of which are: Content of session (60%* 35% *), Concepts reinforcement (50% * 45% *), Organized physical environment (54%* 37% *), Session alignment with module (50%* 44% *), Adequate time allocation (40%* 53% *) Sufficient cognitive load (35%* 58% *), Understanding of difficult topics (38%* 56% *) **Completely agreed *Agreed

Conclusion: It was concluded after taking feedback from students that video session enhanced student's learning and they consider it as an effective content-delivery tool to understand difficult concepts.

Title: Association of Body Mass Index, Dietary behaviour And Physical activity on Bone Health among Undergraduate Students

Authors: Fouzia Batool, Sidra Ali Naqvi, Muhammad Ali, Faisal Saeed, Majid Hussain, Hania Faheen

Institute: Shifa Tameer-e-Millat University

Aims: In childhood and puberty, the bone density intensifies but as the person enters in

young adulthood, the bone mass starts to consolidate under the influence of different factors. The purpose of this study was to find the association of BMI, dietary behavior and physical activity with BMD in undergraduate students.

Method: It was a cross-sectional analytical study which was conducted by non-probability convenient sampling within the duration of 06 months among 157 undergraduate students of twin cities. Those undergraduate students (18-25) who were independent in their ADLs were included while those who were having any diagnosed medical condition or recent history of fracture were excluded. The data was collected using International Physical activity (short form) and Eat-26 questionnaires, while calcaneal quantitative ultrasound (QUS) Sonost-3000 was used to determine bone mineral density. Informed consent was signed by each participant prior to participation. The data was analyzed using SPSS version 21.

Results: Out of 157, 27(17.20%) were males and 130 (82.80%) were females with the mean age of 21.22 ± 1.80 . While the mean values of BMI and dietary behaviour were 21.92 ± 3.89 and 13.24 ± 9.15 respectively. Majority participants were having moderate activity level 84(53.5%) and were osteopenic 95(60.5%). The spearman's correlation showed that there is a negative weak but significant relationship ($r = -0.238$, $p = 0.003$) between BMI and BMD levels, It also shows that there is a weak negative relationship ($r = -0.002$, $p = 0.978$) between dietary behavior and BMD levels while physical activity and BMD levels have positive weak relationship ($r = +0.002$)

Conclusion: The result of this study concluded that alone physical activity and BMI cannot contribute to better bone health unless it is combined with balanced diet rich in calcium. A better understanding of all these factors will contribute to positive bone health

status and prevention for bone weakness in undergraduate students.

Title: Comparative study of hand hygiene behavior between doctor and nurses in tertiary care hospital: A survey to know knowledge, attitude and practice of hand hygiene behavior in health care workers

Authors: Mahnoor Aleem, Maryam Khalid, Col Amina Nadeem, Hamra Javed

Institute: Army Medical College, Rawalpindi.

Aims: On average, health care providers clean their hands less than half of time they should. About one in 31 patient has at least one health care associated infection. Aim of study was to compare knowledge, attitude and practice of hand hygiene behavior between doctors and nurses.

Method: Cross sectional study done in tertiary care hospital (CMH) within span of 4 months from March 2018 to June 2018. Data was collected from 56 doctors and 48 nurses (104 in total). Sample selected by convenient sampling technique. Three questionnaire were used, WHO hand hygiene knowledge questionnaire, Hand hygiene belief and Practice inventory. Data was analyzed by SPSS version 25. Frequency table drawn for knowledge questionnaire and t test was run for hand hygiene belief, practice and importance scale.

Results: Doctors were able to correctly answer statement about frequent source of germ responsible for health associated infection, that which items should be avoided regarding increase likelihood of colonization of hand washing and does hand rubbing should be done or handwashing and does hand rubbing leads to dryness of skin, the difference in correct response was statistically significant (p value was less than 0.05). Nurses has higher total mean score than doctors in hand hygiene importance scale the difference is also

significant (p value is 0.004).

Conclusion: Our study showed doctors performed better in knowledge statements than nurses and nurses has stronger attitude towards Hand hygiene behavior than doctors , however the total score of knowledge , attitude and practice of nurses and doctors overall has no statistically significant difference.

Title: Comparison of Depression, Anxiety and Performance Scales of the Medical Students who Opted Medicine on their Own and those who Opted under Parental Pressure

Authors: Ali Mehdi, Shan-E-Zainab, Jalil Abbas, Hamid Hassan

Institute: Nishtar Medical University, Multan

Aims: To compare depression, anxiety (calculated on AKUADS, BDI and BAI questionnaires) and academic scores (last professional examination score) between medical students who opted medicine on their own and who chose it under parental pressure. Also, to correlate AKUADS, BDI and BAI scores to academic performance of medical students.

Method: It was a cross-sectional comparative study carried out at Nishtar Medical University Multan. 46 Male medical students, between 18-23 years of age, were selected through convenience sampling and were divided equally into Group I (opted medicine themselves) & Group II (didn't opt medicine themselves). Degree of depression and anxiety in both groups was calculated on AKUADS, BDI and BAI questionnaires. Students with a BMI > 24.9 and WHR > 0.9 (WHO cutoffs of obesity for South Asians), with family history of depression/anxiety, with previous history of psychiatric illness and/or recreational drug intake were excluded from the study.

Results: AKUADS, BDI, BAI scores of Group I were lower [(p = 0.000), (p = 0.000) and (p = 0.000) respectively] while their academic score

was higher (p = 0.000) than Group II. For Group I AKUADS, BDI & BAI scores were inversely correlated to performance [(rho = -0.469, p = 0.02), (rho = -0.023, p = 0.02), (rho = -0.072, p = 0.74) respectively] while, for Group II also, AKUADS, BDI & BAI scores had inverse correlation to performance [(rho = -0.816, p = 0.00), (rho = -0.872, p = 0.00), (rho = -0.871, p = 0.00)].

Conclusion: Students who opt medicine on their own have low incidence of depression and/or anxiety and higher academic performance as compared to their age, weight and ethnicity matched counterparts who joined medicine forcefully. Moreover, AKUADS, BDI and BAI scores are inversely correlated to academic performance of medical students too.

Title: Establishing Construct Validity of AMEET Inventory

Authors: Rizwana Shahid, Rehan Ahmed Khan, Rahila Yasmeen

Institute: Rawalpindi Medical University

Aims: To establish the construct validity of Assessment of Medical Educational Environment by the Teachers inventory.

Method: The cross-sectional analytical study was conducted from January to May 2017 and comprised doctors working as faculty in Rawalpindi Medical College, Rawalpindi, Pakistan, and its 3 teaching hospitals. Non-probability (purposive) sampling was used to meet the criteria of 5 participants per item of the Assessment of Medical Educational Environment by the Teachers inventory. Exploratory factor analysis was done using SPSS 20 and confirmatory factor analysis was done with version 16 of the Analysis of Moment Structures software.

Results: Of the 250 subjects, 126(50.4%) were males and 124(49.6%) were females. Exploratory factor analysis ended with

extraction of 11 components. It showed sufficiency of sample size and no multi-collinearity. Three (50%) of the six domains were finalised on the whole and 10(20%) of the 50 items were debarred from the inventory. All three domains had high reliability. Root mean square residual and chi square / degree of freedom were within acceptable limit. However, comparative fit index, goodness of fit index, normed fit index and root mean square error of approximation portrayed not only poor model fit after re-running confirmatory factor.

Conclusion: Construct validity of Assessment of Medical Educational Environment by the Teachers inventory could not be established, but the tool was found to be reliable.

Title: Investigating the satisfaction with life of cancer patients suffering with stress and depression along with the moderating role of counseling

Authors: Hira Amin

Institute: Riphah International University

Aims: The purpose of this study is to investigate the satisfaction of life of cancer patients suffering from stress and depression, who seek the role of counseling during their treatment of cancer. And how counseling is fruitful for them in different ways.

Method :A questionnaire was designed, and the sample of (n=100) was collected from the cancer patients of public sector hospitals and the data was analyzed through SPSS.

Results: The results showed that the patients who adopted counseling during their treatment of cancer had a far better prognosis and were having likely more chances of recovery than the patients who did not avail counseling as a viable option.

Conclusion: Counseling provides a better-guided role in the treatment of cancer and it allows the individual to cope up with the

distress coming along with cancer in a strong manner. Cancer support groups are one of the examples. Therefore therapeutic counseling should be included in the course of treatment of cancer.

Title: Scoping Review/ Connectivism

Authors: M. Riaz Shahbaz Janjua

Institute: Riphah International University

Aims: Connectivism is "actionable knowledge, where an understanding of where to find knowledge may be more important than answering how or what that knowledge encompasses"(Betsy Duke, Ginger Harper, 2013).It provides insight into learning skills and tasks needed for learners to flourish in a digital era (Nathaniel Otashewski, n.d.)

Method: To do scoping review of connectivism to identify key concepts (themes) and gaps related to connectivism. METHODS: Methodological framework of Arksey and O'Malley revised by Levac (2005) was used which includes five important steps, which are: Defined research question, ascertain important studies, choose articles, graph the data, and organise, encapsulate and report the research outcome. Multiple search engines were used (PubMed, Google scholar, Eric) to find studies related to connectivism.

Results: Key concepts (themes): 1. Balanced online environment promotes communication and collaboration among classmates and instructors 2. Network structure can represent the diversity and complexity of knowledge 3. Control of learning is shifted from tutor to autonomous learner 4. Educators have important role to play in online network learning 5. Knowledge is distributed across a network of connections formed by actions and experiences

Conclusion : Gaps: 1.Connectivist framework needs to define the clear role of teacher and student 2.Curriculum designing on the bases of

connectivist theory needs more research 3. Further work needed to find out strategies for information loading 4. Further research is needed to find out connectivist role in medical education.

Title: Ability of students to apply basic sciences in clinical settings

Authors: Inamullah Shah, Mehreen Baig, Jamil Ahmad, Mehvish Noor

Institute: Foundation University Medical College

Aims: MBBS students starting their clinical years, were found to struggle in recalling and applying their basic sciences knowledge in clinical situations. While memory decrement and integrative teaching have been conducted before, this study compares the retained knowledge of basic sciences with its clinical application by final year MBBS students.

Method: Study was carried out over a period of 3 years. 125 students starting their final year surgery clerkship in a private medical college in 2015, 2016 and 2017 enrolled in the study voluntarily. Students were asked to take a paper composed of two sets of MCQs. First section contained questions from end of year exam of anatomy, physiology and pathology taken by these students from 2012-2015. Second section contained clinically relevant questions of anatomy, physiology and pathology. Paired samples t-test was applied to compare the re-test score with their end of year exams scores, as well as their application score.

Results: A statistically significant drop in scores was recorded in re-test of basic sciences ($p=.008$). There was $9.6 (\pm 15.2)\%$ drop in anatomy, $23.24\% (\pm 10.6)$ in physiology and $26.4\% (\pm 8.6)$ drop in pathology scores with an overall drop in the basic sciences score by $19.7\% (\pm 9.2)$. Clinical application score of this retained knowledge was $13\% (\pm 9)$ lesser with a mean of

$39.7\% (\pm 10.7)$. T-test showed a significant difference in the retained knowledge and its clinical application ($p=.000$).

Conclusion: Despite learning through an integrated modular curriculum, the students had forgotten significant basic sciences knowledge over subsequent 2 to 3 years. More importantly, they lacked the competency to translate this basic sciences knowledge in clinical settings. This has implications in revisiting how we teach basic sciences to our students.

Title: Attributes of an Effective Speech Pathology Research Supervisor; A Pakistani Perspective

Authors: Ayesha Kamal Butt, Nayab Iftikhar, Humaira Shammim, Rabia Zubair

Institute: Riphah International University

Aims: Speech and language as a relatively new field in Pakistan has limited empirical evidence to support the notion of best practices and attributes required for effective research supervision. The study aims to fill this gap and provide evidence for the attributes and qualities of a competent and effective research supervisor.

Method: The exploratory study employed a mixed method approach, 30 question Likert scale was designed and employed. The study also conducted two focus groups, one with 8 students who are currently carrying out research and also 8 students who have already completed their research. A sample of 115 students was employed from both campuses of Riphah International University who were either currently completing their research or those who had completed their master level qualification thesis in Speech and Language Pathology. A total of ten supervisors who have been involved in research supervision were included.

Results: The study tool was evaluated for

validity and reliability. The results were calculated suggest attributes at two levels, intrinsic and extrinsic. The intrinsic qualities include personality of the supervisor and student, ethics, respect, hardworking, time management, setting appropriate goals. Extrinsic properties included knowledge of the subject, interest in the topic, links and prospects for publications, and existing publications and funding.

Conclusion: The study is the first of its kind and provides critical student, supervisor centric perspectives and evidence for the qualities valued as the most effective for successful and effective research supervision in the field of speech and language pathology in Pakistan.

Title: Student's perceptions regarding effects of mentoring program on professional development at Islamic International Medical College

Authors: Shamaila Sharif, Abdul Ghani Waseem, Wajeeha Shadaab, Humaira, Rehan Ahmed, Saadia Sultana, Kouser Firdous

Institute: Riphah International University IIMCT, Pakistan Railway Hospital, Rawalpindi

Aims: Objectives: To understand students perceptions about mentoring classes. To identify barriers during mentoring. Study design: It is a qualitative phenomenological study. Study settings: This study was conducted at Islamic international medical college Rawalpindi. It was completed in 6 months i.e., from Feb. 2016 to 31 July 2016.

Method: It is a qualitative phenomenological study. Total 32 MBBS students were included in the study, 16 from third year and 16 from final year. Students of each class were divided into two focal groups, one group of male students and the other of female students. Each focal group contained 08 students. These students were interviewed. Interviews were semi structured. Results were compiled using

NVIVO version 11.

Results: Most of the students considered it effective to have mentoring classes. They found mentoring supportive for self-grooming and confidence. Third year found no guidance in carrier development and emphasized the need for better utilization of time. Final year students reflected that these sessions were helpful in improving their self-confidence and personality development. They emphasized that there was effective role of mentors and regular sessions were required for making it more beneficial. However, these sessions did not help them in carrier development but remained effective for improving behavior towards patients. It fostered their professionalism. The religious impact of these classes had also been significant

Conclusion: Students perceived mentoring program as beneficial for them. Mentoring fosters student's capabilities. It is beneficial for student's personality development, solving their problems, facilitating their performance and also for choosing a profession according to their aptitude and interests. It is also important to develop mentors capabilities.

Title: Incidence of Dementia in Parkinson's Disease in the Scottish PINE Study

Authors: Qaisar Khan

Institute: University of Aberdeen, U.K.

Aims: There is little data on the incidence rate of dementia in patients with Parkinson's disease (PD) compared to controls in representative samples. This study aimed to find the incidence dementia in patients with PD compared to controls in representative samples in the North East of Scotland.

Method: The PINE study recruited 203 incident Parkinsonian's patients along with 260 age-gender matched community based controls in Aberdeen. They consented for standardised annual life-long follow up. Their primary,

secondary care and research records were reviewed to identify those who developed dementia defined by: (1) DSM-IV based clinical diagnosis by an expert neurologist/psychiatrist; (2) the Movement Disorder Society (MDS) research criteria for PD dementia (applicable to 194 patients). Incidence rates were calculated along with the hazard ratio for dementia in patients vs controls using Cox regression. MDS criteria and clinically diagnoses were compared.

Results: 89 patients (49 male, 40 female) were diagnosed with dementia compared to 33 (13 male, 20 female) in controls over a median follow-up of 8 years. Mean age at the time of diagnosis with dementia was 80.2 years in patients, compared to 85.4 years in controls. The dementia incidence for PD patients per 100 per year was 7.29 (5.86-8.97)(95%CI) against the control incidence of 1.72 (1.18-2.41)(95%CI). The hazard ratio was 6.0 for dementia in patients vs controls and was adjusted for age and gender. The MDS criteria was highly specific (88%, 95% CI 81-93%) but not sensitive (66%, 95%CI 55-75%).

Conclusion: People with PD are 6.4 times more likely to develop dementia over controls. The research criteria underestimates true dementia rates which are likely to be much higher. This study would benefit from further research using a multi-locus approach.

Title: Concern of Doctors about their own healthcare

Authors: Muhammad Umar Shahzad, Talha Asif, Zaroon bin Sajjad, Usama Ashraf, Faizan Javed, Muhammad Zaeem, Sumera Ehsan

Institute: Faisalabad Medical University, Faisalabad

Aims: Doctors work long hours under stressful conditions and seem to have sedentary lifestyle that affects health and causes various diseases. Recently, an increased

incidence of sudden mortality among doctors is observed in our community. This study aims to access the attitude and practice of doctors regarding their own health.

Method: An observational descriptive cross-sectional study using non-probability convenient sampling was conducted among teaching and practicing doctors in Faisalabad. After explaining the purpose of this study and taking consent from concerned authorities, a pre-tested validated questionnaire was used as data collection tool. Sample size was 150. Results were analyzed using SPSS 25.

Results: It was observed that greater number of senior doctors (47%) adopt a healthier lifestyle than junior doctors (40%) while majority (68.2%) of them were either not sure or thought they don't pay enough attention towards their own health. 80% of senior doctors got their recommended regular investigations done as compared to 73% of junior doctors. 56% considered limited-time-availability as major barrier in assessing regular health services. Doctors who thought they were spending enough time with family were less stressed during duty (28%) and vice versa (53.8%). Employers don't arrange annual health checkups for vast majority (89.2%) of doctors.

Conclusion: Data indicates, doctors are living unhealthy life due to long stressful duty, lack of sleep and exercise and consider limited-time major barrier in assessing regular health services, so duty hours should be relaxed. As doctor don't give enough attention towards their own health, employers should make regular health checkups mandatory.

Title: Effectiveness of Practical Lab Classes of Basic Sciences for Clinical Practice; Medical Doctors' Experiences

Authors: Muhammad Zaeem, Usama Ashraf, Hafiz Muhammad Faizan Javed, Muhammad

Umar Shahzad, Talha Asif, Zaroon Bin Sajjad, Sumera Ehsan

Institute: Faisalabad Medical University, Faisalabad

Aims: Medical Curriculum all over the world is being avidly revised and brought in concordance with recent scientific advances. The aim of this study is to assess the effectiveness of practical lab classes of basic sciences for clinical practice and to obtain the medical doctors' experiences.

Method: A cross-sectional study using non-probability convenient sampling was conducted among teaching and practicing doctors in Faisalabad. After explaining the purpose of this study and taking consent from concerned authorities, a pre-tested validated questionnaire was used as data collection tool. Sample size was 150. Results were analyzed using SPSS 23.

Results: 150 questionnaires were distributed among doctors practicing in Faisalabad. The subjects of this research included H.Os (29.3%), PGRs (35.3%), SRs (6.0%), Consultants (18%) and GPs (11.3%). A majority of doctors agree that practical classes are effective (60%) but not in pace with recent advances (64%), consume more time than required (44%), practical curriculum should be revised (94%), 3D anatomy models should be used (94%), pharmacy practicals are outdated (77.3%), amphibian dissection is non-essential (61.4%), 11 hours/week on average for practicals is unjustified (42%), interpretation of practicals is more important than their performance (96%), laboratory practicals fall in lab-technician's/histopathologist's domain (57.4%).

Conclusion: The study concludes that there is a pressing requirement for the revision of the curriculum for practical classes, which a majority of practicing doctors believe is outdated. When the world is moving towards

telemedicine and robotic surgery, what is the significance of these obsolete practicals in the modern era.

Title: Comparative Evaluation of Peer Assisted Learning with Teacher Assisted Learning using Small Group Discussions

Authors: Uzma Mussarat, Fatima Ehsan, Abeerah Zainub, Uzma Hassan, Muhammad Humza Bin Saeed, Saira Jahan

Institute: Islamic International Dental College, Islamabad

Aims: Sharing of knowledge among students at the same level, termed as peer assisted learning (PAL), is an established method of learning. the objective of the present study is to compare and evaluate the effectiveness of PAL and teacher assisted learning (TAL) through small group discussion in basic dental sciences.

Method: In an experimental randomized controlled trial we divided 67 students of 2nd year BDS class into four batches (15 to 20 students per batch). Dental material topic was chosen for the study using SGD. Out of the four, randomly selected two batches were conducted by teacher (TAL) while the other two used peer assisted learning (PAL). It was a two hour interactive session followed by two types of questionnaires. First questionnaire based on Likert scale for evaluation of two methodologies and second consisted of MCQs for comparison of learning among batches. For data analysis SPSS 23 was used.

Results: Quantitative data of assessment marks was analyzed using paired sample t test and revealed mean value of TAL as 13.72 ± 1.55 while for PAL it was 12.34 ± 2.3 with a p value of 0.01 which was significant. Analysis of qualitative data using Mann-Whitney U-test revealed that in PAL session competency level, grasping of concepts, student teacher interaction and motivation were proved to be

significant whereas level of interest and difficulty, time management, student participation and clinical correlation of the concerned topic were found to be insignificant.

Conclusion: Peer Assisted Learning can be used as a teaching strategy in Small Group Discussion for basic dental sciences. Peer tutors can be proved as competent teachers but teachers have their unique role in clinical correlation of cognitive knowledge, thus enhancing the learning of students.

Title: The pseudoscience of Non Speech Oral Motor Exercise in SLP clinical practice; A fact check at grad school

Authors: Soabah Wasim, Raffa Mubeen

Institute: Riphah International University

Aims: The use of Non speech oral motor exercises has been discredited in Speech Language Pathology (SLP) clinical practise by the American Speech Language and Hearing Association. However the practise remains common in SLPs. The authors present a survey conducted on SLP graduate student clinicians to determine its use in practice.

Method: A cross sectional survey with a sample size of 43 SLP graduate student clinicians working in various urban and rural settings, both in paid and unpaid professional capacity, in supervised or independent setting was done. Purposive sampling and a self developed dichotomous questionnaire was used to collect data.

Results: The questionnaire was distributed among 43 speech and language pathology graduate student clinicians working in different settings. The questionnaire comprised of nine main questions to obtain views about the use of Non Speech Oral Motor Exercise (NSOME) for the intervention of various speech disorders. The result of the study showed that 36 out of 43 or 83.7% of the total participants had been using NSOME for

intervention of speech sound disorder, Apraxia of Speech and Dysarthria. 7 out of 43 or only 16.3% of population did not consider NSOME as an intervention in SLP clinical practice.

Conclusion: The study revealed that the participants claimed to have used NSOME as an intervention goal for sialorrhea (excessive drooling), Speech sound disorders, Dysarthria and Apraxia of speech. Early intervention rely on evidence based interventions which cannot be ensured if pseudoscience is practised in hopes of rehabilitation and recovery for speech.

Title: Probing in the complexities of the integrated undergraduate medical curriculum

Authors: Neelofar Shaheen, Rehan Ahmed Khan

Institute: Riphah International University, Islamabad

Aims: Many medical institutes are struggling to achieve integration possibly because of diversity in the definitions of integration. The objectives of our study were to identify the level of integration (as perceived by faculty) in the undergraduate medical curriculum & to explore the processes through which the integration was established.

Method: A "Qualitative Exploratory Study", done in three medical institutes in of Pakistan with the established curriculum integration for more than three to five years. The sampling technique was purposive sampling technique using the criterion sampling strategy. Eighteen faculty members (six from each institute) who were involved in designing and implementation of the integrated curriculum were selected for one to one semi-structured interviews. The interviews were audio recorded and later on transcribed followed by thematic content analysis using the Computer Assisted Qualitative Data Analysis (CAQDA) software.

Results: The coding process which comprised of open coding and in vivo coding yielded 136 codes. These codes were grouped, and categories were formed. From categories, four themes emerged. The themes included curriculum planning; an uphill task, dream versus the ground reality, moving up and down the ladder and teamwork in the paradigm shift.

Conclusion: Curriculum integration is an inherently inconsistent process that does not follow a simple hierarchical continuum of integration as proposed by Harden. There were varying levels of curriculum integration in different phases of the curriculum. A tool can be developed that can identify the levels of integration in different phases.

Title: “Mirror Mirror on the wall , am I a refractionist is that all ?”: Establishing the professional identity of Optometry students”

Authors: Komal Atta, Fatima Iqbal, Ayesha Kiran, Asma Batool, Ayesha Shafqat, Aamir Ali Chaudhry

Institute: The University of Faisalabad

Aims: The aim was to modify the undergraduate curriculum of Optometry for reinforcing the professional identity of the students and to reduce effects of hidden curriculum and negative socialization factors by focused mentoring.

Method: In the first phase during the fall session 2017, a validated questionnaire for Professional Self Identity (PSI) progression was given to all students enrolled in 1st, 3rd and 5th semesters (n= 150) fThe domains defined for the exploration of PSI were Socialization, self-realization, experiential learning and the hidden curriculum. Data was analyzed at the start of Fall Semester 2018, descriptive statistics, chi square was used to analyze the association of PSI with each subset and open ended questions , phase 2 included alterations in course work and mentoring and was followed by retake of PSI

Results: The preliminary questionnaire showed an overall low professional identity progression only 43% of students seemed satisfied , lowest being 15 percent in semester 5. It also identified key factors as being the hidden curriculum ($p=0.02$), a lack of experiential learning ($p=0.01$) and low self-realization ($p=0.02$), the results at the end of phase 2 showed an improvement in overall PSI progression (66%) with greatest satisfaction amongst the 3rd semester students, key factors positively associated now were experiential learning ($p=0.01$) and high self-realization ($p=0.02$).

Conclusion: Hence after tweaking the curriculum and mentoring programs to be aligned with the professional identity development of the students, a more positive professional self-identity was established in the same cohort of Optometry students over a short period of time. Recommendations: study time may be increased to explore further progression.

Title: I'm no superman: Investigating the effects of the hidden curriculum on resilience pre and post the MentorR programme in students of Optometry

Authors: Komal Atta, Fatima Iqbal,, Shakila Abbas, Amna Javed, Nimra Gul, ,Ansa Amjad, Sadaf Qayyum

Institute: The University of Faisalabad

Aims: Healthcare is a field where failure is inevitable yet embracing it is taboo. developing resilience in health sciences students is thus imperative. Aims: to explore how the hidden curriculum effects resilience to counter that effect by addressing the informal curriculum via modification of a mentorship program for optometry students.

Method: 50 students of 8th semester Optometry were divided into focused groups and discussed questions on the hidden curriculum. thematic analysis was done for these questions. the mentoring program was

modified to establish more connections between faculty and students, to be more focused on topics bringing the hidden curriculum out, inculcate near peer mentoring, alumni counselling sessions, reflective writing, constructive feedback and other activities to specifically address these themes. After 6 months, the same cohort was re-administered the brief resilience scale.

Results: Pre mentor programme the BRS gave a mean of 2.8(normal range 2.5-5.0). themes that emerged form the focused groups were professional identity formation, ethical issues, cultural values, interpersonal relationships, negative role modelling, hospital environment, leadership or lack thereof and fear of failure. At the end of the mentoring programme the BRS now gave a mean of 3.95.

Conclusion: Study suggests that resilience in optometry students increased as a result of interventions to address the hidden curriculum via a mentoring program and also that the hidden curriculum has maybe a greater impact on character development of health sciences students than the formal curriculum and hence warrants proper assessment methods.

Title: 'Doctor, teacher, translator': International medical students' experiences of clinical teaching on an English-language undergraduate medical course in China

Authors: Ahmed Rashid

Institute: University College London

Aims: Like many Chinese universities, Ningbo University (NBU) has two undergraduate medical programmes – one taught in Chinese for domestic students, and one taught in English for international students. This study examines the experiences of medical students who recently completed the English taught undergraduate medical programme.

Method: In-depth, face-to-face, semi-

structured interviews were conducted with ten final year medical students at Ningbo University in April 2019. Interviews had a particular focus on experiences within their clinical placements. Transcripts were analysed using inductive thematic analysis.

Results: All medical student participants were non-native English speakers and had a very limited grasp of the Chinese language. Their clinical teachers were all fluent in Chinese and had variable command of the English language. The large majority of patients in the teaching hospitals where placements took place spoke only Chinese. Despite the obvious challenges arising from this, students still had predominantly positive experiences of clinical placements. Supervising doctors often had to act as translators during teaching. Although the English proficiency of clinical teachers was variable, the students felt other factors, like enthusiasm and interactivity, were more important to teaching quality.

Conclusion: Despite apparently unworkable linguistic circumstances, non-native English speaking students were able to navigate the challenges of studying clinical medicine from teachers with limited English language skills, and with patients who spoke no English. The challenges were greatest in professionalism and communication, and future research should focus on graduates post qualification.

Title: Exploring the challenges faced by MHPE graduates at their workplace by implementing theory into practice

Authors: Bilqis Hassan

Institute: North West School of Medicine

Aims: Transformation in the medical education has offered new challenges. More demanding responsibilities are expected from medical educationists and educators. Appropriate leadership will thus enhance the health system and medical education in terms

of technology and quality. Aim: To explore the challenges confronted by the medical educators at work place.

Method: A Hermeneutic Phenomenological qualitative study was carried out. A total of nine in depth interviews were recorded from agreeable medical educators, graduated from five different medical Universities of Pakistan. Seven guiding questions were searched from literature and were authenticated by three medical education experts for interviews. Analysis of text was done using an open coding technique. Data was categorized using axial coding and themes were emerged from this process, which were then reviewed by supervisor, medical education experts till a consensus was reached on themes. Data collection and data analysis was done simultaneously at the same time.

Results: Three themes emerged: 1. Civilization in medical culture. Participants illustrated that civilization in medical culture has deep impact on medical community and has improved the quality of graduates. 2. Editing Educational trends crave for didactic leaders. Participants identified multiple challenges in terms of time, lack of resources and infrastructure, faculty training and issues with evaluating bodies. It was stressed that joining on one platform, giving priority to academics and promoting the new education culture is a necessity of today. 3. Smart educators; a key to success. Participants acknowledged having well-informed leader to address issues of resources and training of faculty.

Conclusion: Appropriate leadership with an effective background of medical education is essential to flourish the new culture of medical education. Acceptance of medical educators is a dire need of today as they will cradle the captivating campaign of bringing transformation and produce noble and virtuous doctors to improve the health system.

Title: Islamic Medical Education: Indonesia Experience

Authors: Jurnal Uddin

Institute: Yarsi University School of Medicine

Aims: Islamization of medical education started by defining Muslim Physician, the end product of medical education. Muslim Physician is those who aside of being a QUALIFIED PHYSICIAN but also put into practice their professional knowledge and skill in line to Islam and continuously and consistently observe and obey all their religious.

Method: We have 24 blocks and each block has of 3 to 4 problems. To each scenario we have PBL group discussion, Clinical Skill training, practical, traditional lecture and journal reading assignments. All those activities should have Islamic and medical discussion.

Results: Islam is the foundation, paradigm, direction and ultimate goal of the student's academic and non-academic venture. A Muslim Physician should always adhere the five principles of Islamic divine law (maqasid as-shari'ah) and the Five legal maxims of the Islamic divine law (qawaid as-shari'ah).

Conclusion: Islam is the foundation, paradigm, direction and ultimate goal of the student's academic and non-academic venture. A Muslim Physician should always adhere the five principles of Islamic divine law (maqasid as-shari'ah) and the Five legal maxims of the Islamic divine law (qawaid as-shari'ah).

Title: Adoption of Dundee Ready Educational Environment Measure (DREEM) --- A generic instrument to assess under graduate medical students' perceptions of educational environment

Authors: Khola Noreen, Kausar Aftab, Risat Ali Nehra

Institute: Rawalpindi Medical University

Aims: Educational environment refers to the

wide range activities within which learning ensue. This comprises of students, faculty, teaching learning modalities, monitoring, evaluation and feedback. Assessing the medical students perception of educational environment not only play significant role in improving the quality of education environment but overall medical education process can.

Method: This cross-sectional study was conducted on 281 undergraduate medical students of Pakistan Red Crescent Medical and Dental College . DREEM Inventory was used to collect the data. DREEM is validated tool and universally used as diagnostic inventory to assess the quality of education environment. Anonymity and confidentiality of data was maintained.

Results: Students' perceptions of learning, students' perceptions of teachers, students' academic self-perceptions, students' perceptions of atmosphere, students' social self-perceptions and total DREEM score were 26.5/48, 24.4/44, 18.4/32, 26/48, 15.3/28 and 108.5 /200, respectively. Out of total 50 items, 11 items scored less than 2 which indicate the area of significant problem and these issues need to be addressed on urgent basis.

Conclusion: Overall scores suggest the need for improvement of educational environment .The domains with significant problem areas include stress and burnout among students due to burdensome course content, emphasis on factual & teacher centred learning, authoritarian style of course organizers.

Title: Exploring Employee Performance through Depression and Ethnicity Harassment with Moderating Role of Ethical Leadership in Public Healthcare Sector

Authors: Rumaisa Sajid

Institute: Riphah International University

Aims: Ethnicity Harassment is an issue that exists whether its a top-notch corporation or a

standard office. The main aim of this research is to highlight the issue of ethnicity harassment and how it affects an employee's performance at work.

Method: The method used to collect data was by filling the questionnaires that measures the intensity of the variables: depression, employee performance, ethical leadership, ethnicity harassment. My main focus is the public healthcare sector. As it was difficult to obtain enough data from one or two healthcare facilities; many healthcare facilities were visited and the healthcare professionals (doctor, nurses, pharmacists etc) were asked to fill the questionnaires. The identities of the healthcare professionals were kept anonymous as they were not comfortable mentioning it but the demographics and other details in the questionnaire were recorded.

Results: Although, most of the results are recorded, the research is still in progress. However, the expected results are that no matter what the level of management one is in, ethnicity harassment does exist and which in turn leads to depression and has an adverse effect on the employee's performance. To counteract this issue, Ethical Leadership should be practiced in workplace and strategies and workshops should be conducted that teaches love, respect and acceptance towards other ethnicities; and also that how working together can increase the productivity of the organization too.

Conclusion: To conclude, in a world where already a lot of hatred exists and certain acts are carried out due to that hate, we must at least keep our workplaces safe from all of this, and make this place a better place to live in.

Title: Association between duration of sleep and sleeping in complete darkness with memory functioning

Authors: Kashmala Safdar

Institute: Army medical college Rawalpindi

Aims: To find out that whether sleeping in complete darkness improves our memory functioning.

Method: SAMPLE SIZE: sample size of 272 people was selected by using WHO sample size calculator. SAMPLING TECHNIQUE: non probability convenient sampling STUDY SETTING: This study was conducted in AMC Rawalpindi Pakistan STUDY DURATION: This study extended for 9 months i.e. from May 2018 to January 2019. STUDY DESIGN: This is a cross sectional study. DATA COLLECTION PROCEDURE AND ANALYSIS TOOL: Modified memory functioning questionnaire was used by permission of its author for collecting data. Data was analyzed by using SPSS version 22 software. INCLUSION CRITERION: Students of AMC Rawalpindi Pakistan between ages 18-25 years were included in this research EXCLUSION CRITERION: Students who slept for less than 3 hours were excluded from this research.

Results: People who slept in complete or partial darkness have better memory functioning because mean score of such people was higher and as compared those sleeping in light. Obtained results are statistically significant with p value of 0.00 for relation memory functioning with sleeping habits. A significant value of 0.04 was obtained when chi square test was applied to assess relationship of memory functioning was sleep duration of more than 6 hrs.

Conclusion: It was found by this research that sleeping in complete darkness improves short term memory. While people sleeping with light on have poor short term memory. Furthermore sleeping for more than 6 hours was improving memory functioning. Further research needs to be done regarding sleeping in darkness and memory enhancement.

Title: Effectiveness of Assisted autogenic Drainage and Chest Physical Therapy on children suffering from Pneumonia

Authors: Summyia Siddique Malik

Institute: Foundation University Institute of Rehabilitation Sciences, FUI.

Aims: Pneumonia being notorious for majority of deaths worldwide in children. According to reports of Global Burden of Disease 2013 and 2015 pneumonia accounts for 2.74 million deaths, making it fifth leading cause of death worldwide. From 2005-2015 the number of deaths caused by LRTI's increases to 3.2% among all age.

Method: This study was initiated after approval from advanced study and research committee Riphah institute of rehabilitation sciences, Riphah International University Islamabad. The study was conducted according to the ethical guidelines of Pakistan Medical Research Council (PMRC) and the Declaration of Helsinki. Anonymity and confidentiality of participant's was maintained throughout the research. It was a Quasi Experimental Study. The subjects were conveniently allocated in group A and group B according to the inclusion and exclusion criteria. The study was conducted after ethical approval from Fauji Foundation Hospital ,Rawalpindi for a duration of 06 months. Non probability convenient sampling was used. Sample

Results: Shipore-wilk test was used to assess the normality of the data. In current study all variables were non parametric except Heart rate. The continuous variables were assessed through mean, frequency and standard deviations. Both between group analysis and within group analysis was performed on the basis of Alternate and Null hypothesis, as, both conditions were assessed i.e. overall comparison and specific comparison of both techniques was the objective of the study. For

between group comparison of Non-parametric variables of Group A and Group B Mann-Whitney U test was applied, and, for Parametric variable Independent T test was performed. Within group

Conclusion: Results concluded that both treatment protocols are statistically significant in treating patients suffering from pneumonia. There is no difference between the treatment protocols while treating patients suffering from pneumonia with assisted autogenic drainage and standard chest physical therapy.

Title: CME status in South-East Asia and Eastern Mediterranean region – Progress towards mandatory CME linked to physician re-registration

Authors: Farhan Saeed Vakani, Kerry E Uebel, Apo Demirkol, Chinthaka Balasooriya

Institute: Hamdard University & University of New South Wales

Aims: Efforts to implement mandatory CME linked with physician re-registration in developing countries have been slow and met with mixed success. The aim of this study is to conduct a review of CME in countries in the SEAR and EMRO regions to inform efforts to implement mandatory CME in developing nations.

Method: A narrative review was conducted of the information publicly available on the status of CME in all 11 countries in the South-East Asia (SEAR) & all 22 in Eastern-Mediterranean (EMRO) region. Searches were conducted on the websites of the national medical or health councils and of published literature for each of the countries in the two regions using online library resource from MEDLINE/PubMed; ProQuest Central. Four main criteria from WHO SEAR guidelines for CME/CPD were used to categorize the status of CME in all 33 countries.

Results: Voluntary CME is being conducted in all countries in these two regions, except three

countries where no information was available. There are three countries in the SEAR and nine in the EMRO region that have implemented mandatory CME linked to renewal of registration. Of the 12, all six high income countries and one high middle-income and five low-middle income countries have implemented mandatory CME. Seven other countries appear to be moving towards mandatory CME systems.

Conclusion: High-income countries clearly have resources to implement mandatory CME, but it is not only income status that determines if a country can implement mandatory CME. Results of this review may be helpful for countries in transition toward mandatory CME linked with physician re-registration.

Title: The Participation Assurance Test (Pat): A new teaching strategy to ensure student participation in learning

Authors: Narmeen Hashim

Institute: Rehman Medical College

Aims: Introduction: Participation of students in learning determines their scholastic achievements. Current teaching systems do not assess student participation in learning, rather provide grades based on knowledge recall. Objective: To develop and evaluate a teaching strategy that can provide a standardized measure of student engagement in the learning process.

Method: A quasi-experimental study undertaken in Rehman Medical College, Peshawar, KP, Pakistan (March-May 2018) involved 96 medical students (16 groups) of third professional MBBS present in Small Group Format (SGF) session on medical research. Participation Assurance Test (PAT), administered after the lesson involved i) written iPAT for individual performance, ii) written tPAT for team performance, iii) perception-based peer evaluation pPAT for

rating team members, and iv) Observer based oPAT by facilitator for intra-group and inter-group dynamics. Scores in numerical and Likert scales were analyzed by SPSS 22.0 for descriptive and comparative analysis and correlations, keeping $p < 0.05$ significant.

Results: Mean iPAT was 54.66 ± 12.80 compared to mean tPAT (75.96 ± 19.85 , $p < 0.001$), mean pPAT was 20.83 ± 5.14 compared to mean oPAT of 16.50 ± 4.99 ($p < 0.001$), and mean Closed Group oPAT was 4.19 ± 1.90 compared to Open Group oPAT of 12.31 ± 3.40 ($p < 0.001$). Significant correlation was obtained for iPAT and tPAT ($r = 0.564$, $p = 0.023$). The groups achieving ≥ 60 iPAT marks showed significant correlations of iPAT with tPAT ($r = 0.869$, $p = 0.024$) and closed group oPAT ($r = -0.882$, $p = 0.017$); groups scoring below 60 in iPAT showed significant correlations of iPAT with tPAT ($r = 0.749$, $p = 0.013$), open group oPAT ($r = 0.636$, $p = 0.048$), and total oPAT ($r = 0.635$, $p = 0.048$).

Conclusion: Participation Assurance Test was effective in assessing individual and team-based student participation and supports the adoption of Open Group teaching strategy as more effective for student participation in learning.

Title: Portfolio Development: Addressing Deep Information Processing Skills

Authors: Mariam Sohail

Institute: Riphah international university

Aims: Portfolio development has wide application and has numerous strengths if used correctly. Portfolios have different constructs and layouts and are modified and tailored to meet specific needs (Snadden & Thomas, 1998)(Roberts, Newble, & O'Rourke, 2002). Deep information processing skills are very critical for medical students and doctors success. Lifelong learning can only be beneficial if the students are capable of

processing the acquired information deeply in a manner that yields the required learning (Tsingos et al., 2015)(Tsingos, 2013). A doctor can't grow professionally if he doesn't have DIP skills. So it is very important to see the effect of portfolio development on DIP skills.

Method: Quantitative, Ex-Post Facto Causal Comparative research design Site: Fatima Memorial College of Medicine & Dentistry, Lahore Study duration: 2 months Sample size: Target population of 150 students of 2nd year MBBS (FMH, CM&D). Data collection tool: DIP questionnaire by SCHOUWENBURG et. al Data collection process: 2nd year MBBS students received portfolio development training via lectures & workshops by DME-dept. FMH, CMD reinforced by formal mentoring program. 89/150 students completed portfolio, while 61 didn't. After IRB approval students were divided into Group A: developed portfolios. Group B: didn't develop portfolios. The DIP questionnaire was distributed to the students in groups.

Results: 126/150 students completed the questionnaire with a response rate of 84.6%. Out of 126 students, 47 (37.3%) were males and 79 (62.7%) were female. 30 out of 47 males and 52 out of 82 females developed portfolio while the rest didn't. Critical reading skills, content understanding and skills to finding structure in content were developed "most of the times" in students who developed portfolio with majority of students having median score of 4 in each domain. Critical reading skills were "rarely" developed, while content understanding and finding structure in content skills were "sometimes" developed in students who didn't develop portfolio with majority of students having median score of 2, 3 & 3 respectively in each domain. There was a statistically significant difference in the DIP skills of the students who developed portfolio (64.6%) as compared to students who didn't

develop portfolio (34.1%).

Conclusion: DIP skills were developed more in students who had developed portfolio as compared to students who didn't. Critical reading skills & content understanding are improved more than finding structure in content skills by portfolio development. So portfolio development is an effective way of inculcating DIP skills in students.

Title: Survey on Learning Style Preference among Undergraduate DPT Students at The University of Faisalabad

Authors: Sumaiyah Obaid, Sidra Majeed, Tanzila Chudary, Amna Chohan

Institute: The University Of Faisalabad

Aims: Current physiotherapy students face huge challenge in navigate their outrigger through learning process. Students and facilitators search for different strategies to improve the students' academic performance. One of the efficient methods is to identify the student's learning style preferences. The aim of our study was to determine the learning style preference

Method: Our study was cross sectional study. It was conducted at Health Science campus of the University of Faisalabad. The duration of this study was between January and April 2017. The participants consist of physiotherapy students. Perceptual Learning Style Questionnaire was used in this study. A total number of 145 students participated in this study. The sampling procedure employed for the selection of the participants was stratified sampling. The duration of our study was 4 months (between January and April 2017). Inclusion: All the females of 6th, 8th and 10th semester of physiotherapy at The university of Faisalabad were included in this study.

Results: Results were indicated that the most preferred learning style preferences among

undergraduates DPT students of 6th, 8th and 10th semester at The University of Faisalabad was kinesthetic learning style. The One way ANOVA test shows that there is no association between preferred learning styles and 6, 8 and 10 semesters of undergraduate DPT students. The only auditory learning style show significant result. Comparison of teaching method and perceptual learning style preferences was determined by the application of chi-square. The P value of chi-square shows non-significant results except Visual learner's preferred Practical based teaching method.

Conclusion: The major learning style in undergraduate DPT students has kinesthetic learning styles. The high percentage of doctor of physical therapy students have mixed learning styles suggests that they can accommodate multiple teaching methods. Significant association between auditory learning styles and 6, 8 and 10 semester except other learning styles.

Title: Employment Status and Income Satisfaction Of DPT Alumni of RCRS (Islamabad)

Authors: Sumaiyah Obaid, Farkhanda Afzal, Wagma, Aumbar Shahid, Sania Khawar Kiyani

Institute: Riphah International University

Aims: The objective of the study was to determine the working status of DPT alumni of RCRS Islamabad campus and working area (field) and setup of alumni along with level of satisfaction with income and satisfaction with respect to different medical fields.

Method: A cross sectional survey was conducted in 2017-2018 in Riphah College of rehabilitation sciences. The snowball sampling method was used for the study. From batch spring 2008 to batch fall 2012 were included in the study. The DPT (Doctor of physical therapy) alumni were contacted through email and

phone calls. A self-administered questionnaire was used which consist of 6 sections. The data was then analyzed through SPSS version 21.

Results: Out of 363 total numbers of alumni 315 were responded. In these respondents 61 are males and 254 are females. Total number of employed alumni is 140 in which 98 are female and 42 are male. 136 are unemployed in which 11 are males and 125 are females. Out of 140 employed alumni 97 work in clinical field and 38 worked in academics, 47 alumni work in private setup while 28 alumni are in government setup, in semi government 17 alumni are working, 4 alumni running their personal clinic and 4 alumni provide home services.

Conclusion: From this study we conclude that female are more unemployed then males and the majority of employed alumni working in clinical field. Most alumni are unsatisfied with their earned income.

Title: Peer Review of Teaching Process and Procedures: A Review of Canadian and Australian Universities

Authors: Azim Mirzazadeh, Azadeh Rooholamini, Roghayeh Gandomkar

Institute: Education Development Center, Tehran University of Medical Sciences

Aims: Peer review of teaching (PRT) provides a comprehensive evaluation of faculty teaching performance. In spite of its role in improving teaching, a few literature has been published about PRT. This paper aims to review the process and procedures of PRT in the Canadian and Australian (two pioneering countries) Universities.

Method: We searched each university's website using the following terms: peer review of teaching and teaching evaluation. We excluded universities that applied only peer observation of teaching. We analyzed the components of PRT including purpose,

reviewers and reviewees characteristics, timetable, teaching aspects covered, instruments of 19 Canadian and 27 Australian universities.

Results: A total of 32 universities had information on PRT. It was employed as both summative and formative evaluation in 16 universities. Fourteen universities identified reviewers' characteristics (academic rank or expertise in education) and number (between two to four). Occurrence of PRT was primarily annually or at the time of promotion.

Conclusion: The synthesis of PRT literature using universities websites is an starting point to shed light on the practice of PRT. Further research are needed to explore the barriers and facilitators during the PRT programs.

Title: Interplay of cognitive strategies used by teachers and extraneous load of medical students

Authors: Shabana Ali Muhammad, Raheela Yasmeen, Humaira Kamal, Huma Beenish

Institute: Islamic international Medical College

Aims: While preparing a teaching session, medical teachers need to employ appropriate cognitive strategies to decrease extraneous load of students as it makes space for processing complex information. Objective of study was to explore the use of cognitive strategies in medical teachers with reference to their teaching sessions.

Method: A phenomenological study was conducted after approval from ethical review board of the Islamic international medical college. Pre-clinical and clinical medical teachers were selected through purposeful sampling without gender discrimination. Data was collected through semi structured interviews and transcribed for "Textural and structural analysis" by observing "What" was said by the respondent and "how" it can be explained. Each statement was given equal

value. Coding was done in two cycles. A constant comparison among the respondent's responses was done to form categories and themes during second cycle of coding. Inductive thematic analysis was done.

Results: Total seven themes were identified. All teachers preferred to know the "learning objectives" of teaching session. Medical teachers preferred to "rehearse by repeating their topic for better communication" and believed in "making summaries" to clear their concepts and thinking of "metaphors". An attempt to find the answers of possible "questions by students during teaching sessions" was found another footstep of their learning. For their deep learning, medical teachers preferred to organize their content and use "flow charts to split the main concept along with pictures" in their presentation. "Video and pictures" were preferred as tools for better understanding of learners.

Conclusion: Medical teachers apply cognitive strategies to reduce extraneous load of learners. They repeat their concept for better expression and communication during teaching. Making summaries and analogies facilitates their teaching while using pictures and videos facilitate learner's complex thinking of learners. They divide difficult concepts into smaller chunks through flow charts.

Title: Role of different learning styles influencing learning of Biochemistry in first year MBBS students

Authors: Atteaya Zaman

Institute: Federal medical and Dental college

Aims: Molecular biology is fundamental for understanding the working of human body at cellular level. However medical students are always struggling to learn principles of biochemistry. This study elucidates the relationship of biochemistry with learning styles of medical students and how it can help

to improve the teaching strategies.

Method: A cross sectional observational study was conducted on 100 students of first year MBBS. Duration of study was 3 months conducted after securing permissions from ethical review committee and consent from participant students. The students were given a seven point zero version of VARK questionnaire and their academic and demographic data were collected. Data regarding self perceived learning style of the students was also collected. Learning preferences were determine using VARK scores.

Results: Out of 100 students invited to participate in the study, 90 participated actively. Out of these 30 were males and 60 were females. Mean age of participants was 18.3 years. 95 percent from FSC system and 5% were from A level system. the result showed, majority of students (64%) preferred multiple learning style and only 36% showered a unimodal style of learning. Most common learning style in order of preferences were as follows Kinaesthetic 34% Auditory 15% Visual 12% Read/ write 8%. No gender difference in preferred learning styles was observed.

Conclusion: Most medical students are ignorant of their learning styles. There may be more than one learning style co-existing and making students aware of their style facilitates their learning. Tailoring the instructional techniques according to student preferences, not only gives them a degree of autonomy, but also enhances learning.

Title: Assessing Diabetic Patients health related quality of life and their satisfaction with treatment

Authors: Muhammad Khaliq

Institute: Army Medical College, Rawalpindi

Aims: To determine health related quality of life among patients of Diabetes mellitus type 1

and 2 as well and their satisfaction regarding treatment in different aspects.

Method: It was a descriptive cross-sectional study of 6 months duration from Aug 2017 to Jan 2018. It was conducted in Military Hospital and Combined Military Hospital, Rawalpindi, Pakistan. A sample size of 200 was calculated using WHO sample size calculator. To determine health related quality of life among diabetes mellitus patients, we used a standardized validated questionnaire that is WHO-BREF after obtaining license of Urdu version. The WHOQOL-BREF instrument comprises 26 items, which measure the following broad domains: physical health, psychological health, social relationships, and environment. In WHO_BREF, 1 denotes poor while 100 represents excellent quality of life.

Results: The mean age of participants was 55.2 ± 8.11 . The mean score for Physical Domain of quality of life was 57.7 ± 15.05 (out of total score of 100) for Psychological Domain was 70.6 ± 10.14 for Social relationships was 64.4 ± 16.02 for Environmental Domain was 61.9 ± 11.53 . regarding patients satisfaction the mean score for General satisfaction of patient was 3 ± 0.24 (out of total score of 5), for Technical quality was 2.5 ± 0.75 for Interpersonal manner was 2.8 ± 0.57 for communication was 2.5 ± 0.67 for financial aspect was 4 ± 0.65 for time spent

Conclusion: The quality of life of patients of diabetes was least regarding their physical domain while highest for psychological domain. The diabetic patients were least satisfied with technical quality and communication while most satisfied with financial aspect and time spent with doctor.

Title: Faculty Members Motivation

Authors: Sholeh Bigdeli, Mohammad Hasan Keshavarzi

Institute: Shiraz University of Medical Sciences

Aims: Today, the growth of technology and the demand for virtual universities are increasing. Faculty members play the most important role in developing education. The purpose of this study is to design a motivational model for the development of virtual education in Medical Universities in Iran.

Method: This qualitative study was carried out on the basis of conventional content analysis. The research population of faculty members interested in the virtual domain, who had experience working with it, were selected. Sampling was done using purposeful sampling. Interviews were conducted to achieve data saturation. The semi-structured interview was used to collect data. To analyze the data, the Graneheim, Lundman method 2004 was used.

Results: The results of 28 interviews were 48 sub categories, 12 categories and 5 themes. 3 themes are included as motivational components including "virtual teaching feature", "attention to learner needs" and "teachers' professional promotion" and 2 themes of virtual education challenges (inhibitor factors) and appropriate context (facilitators) Was extracted. The final model was designed after receiving expert comments and suggestions.

Conclusion: The proposed model showed that the development of virtual education in the university requires the establishment of appropriate context along with the reduction of faculty members' concerns.

Title: Use of portfolio as a tool to improve cognitive learning; Scopic review of literature

Authors: Lubna Rani Faysal

Institute: Islamic international medical college, Riphah international University

Aims: Portfolio is an organized collection of past and current accomplishments of learners. It is a useful teaching and learning tool, it deals

with acquiring of knowledge, skill and attitude through formal, informal, accidental and incidental learning and helps the students to develop analytical, reflective and critical thinking skills for problem.

Method: This scoping review is supported by the framework of Arksey and O'Malley that has following steps: Identifying the initial research questions Identifying relevant studies Study selection Charting the data Gathering, summarizing and reporting the results Inclusion criteria was based on Language: English, Literature Focus: only medical education articles. Prisma formation was done with initially 27 articles and finally 04 articles were reviewed, rest of the papers were disregarded because of insufficient & irrelevant information in relation to research question. Following databases were used up to Dec 2018 for literature search; PubMed, Eric & Google scholar.

Results: The results indicate that; A continuous improvement in the cognitive development from the lower order cognitive skills like describing, explaining and understanding to higher order cognitive skills of analyzing, evaluating and creating. Portfolio development enhanced the metacognitive skills. Critical thinking one of the major concepts under consideration in medical education and it is accepted as one of the higher order cognitive skill, is teachable through portfolio development. There was a statistically significant difference between the experimental and control group in the post critical thinking test in the favor of the experimental group.

Conclusion: Portfolio is an excellent pedagogical tool to develop metacognitive skill of learners. It is an effective strategy to enhance higher order cognitive skills through reflective practices among learners. However, several factors such as lack of understanding of

basic principles and unavailability of clear guidelines can hinder development of reflective skills.

Title: Health for All: Comparing Apprenticeship with Traditional Classroom Learning in Community Oriented Medical Education (COME)

Authors: Ayesha Abbasi, Kinza Rubab, Rameen Malik, Asma Ishaque, Noshaba Shafquat, Junaid Anwar, Khubaib Ghufuran, Ahmad ur Rehman, Farhan Khan

Institute: King Edward Medical University, Pakistan

Aims: In recent years, there have been substantial efforts globally to mould medical education in accordance with the needs of the local community of a region. The objective of this study was to ascertain whether apprenticeship could substitute the traditional classroom learning in Pakistan in order to implement COME in Pakistan.

Method: A cross sectional study spanning 6 months was conducted in a public-sector medical university of Pakistan. 300 subjects were recruited in the study with the inclusion criteria being 4th year MBBS students of King Edward Medical University, studying the subject of Community Medicine and having prior 1 year experience of apprenticeship in the form of clinical rotations in 3rd year MBBS. Written informed consent was obtained and data were collected by a pretested questionnaire proforma. Medical apprenticeship: contract between senior doctor and student, combining on-the-job training and formal learning. Classroom based learning: students taught by lectures without demonstrating the subject's practicality.

Results: All qualitative variables were presented in the form of frequency and percentages. Chi square test was applied and p values were calculated using SPSS v23. The

results indicated a preference for the apprenticeship mode of learning; 90% of the students believed apprenticeship to promote greater knowledge retention, instilling confidence in the students to apply medical knowledge, and to carve their own professional identity (p value <0.05). However, apprenticeship was deemed as more exhausting (69.0%), prone to favouritism (59.3%) and harassment (79.0%). With reference to Community Medicine, 70.0% endorsed apprenticeship. Only 39.3% students believed that this change would be easy to implement.

Conclusion: Apprenticeship is the preferred mode for learning the subject of Community Medicine. It would yield a superior learning outcome for students and help developing countries in achieving the goals of primary health care. Medical students must collaborate with public health experts, in order to materialize the dream of Health-for-All.

Title: Beliefs, Attitudes, Knowledge and Behaviors of Speech Language Pathologist/Therapist towards Evidence-Based Practice

Authors: Fazaila Ehsaan

Institute: Riphah International University

Aims: Evidence-based practice evolved from evidence-based medicine, has been described as the conscientious and explicit usage of recent best evidence in making decisions about the care of individual patients. Allied Health professionals are involved with the delivery of health services relating to the identification, assessment and prevention of disorders.

Method : The primary purpose of this study is to explore the attitudes and beliefs of Speech therapists. The secondary purpose is to describe associations among the elements like education, knowledge, skills and

characteristics of professionals. A cross sectional survey was conducted on sample size of 103 individuals within the duration of 3 months from July 2018 to September 2018. Speech Therapists from different hospitals and clinics of Lahore were recruited in the study by using convenient sampling technique. A questionnaire containing the statements regarding beliefs, attitudes, knowledge and behaviors regarding EBP and also demographic information of study participants.

Results: There were 91(88%) females and 12(11%) males included in study. 95(92.2%) Speech Language Pathologist/Therapist belong to age group 20-29 years old and 8(7.8%) belongs to age group 30-39. Among them 6 (5.8%) of participants have less than 1 year, 72(89.9%) have 1-3 years, 19 (18.4%) have 4-6 years and 6(5.8%) have 7-10 years of experience respectively. Majority of the participants (71%) have bachelor's degree. The mean score for knowledge was 15.72 ± 2.7 , for practice 18.22 ± 3.1 and for Believe was 16.31 ± 2.7 respectively which showed the moderate level of Knowledge, practice and Believe regarding evidence based practice in speech therapists/pathologist.

Conclusion: It was concluded that speech language pathologists/therapists generally had a positive attitude towards evidence based practice. Due to their limited resources and less knowledge, they were also interested in learning and improving their skills that are essential for the implementation of evidence based practice in their routine clinical practice.

Title: A study to explore Medical student's perception of Scientific Research in a Public Sector Medical Institution

Authors: Hafiza Hafsa Ijaz, Adnan Nasir, Hadia Nadeem

Institute: Faisalabad Medical University, Faisalabad

Aims: Exposure to research training in medical education plays a crucial role in attaining advancements in medical sciences. In Pakistan, medical students face significant challenges with respect to research activity. In this study, we are attempting to enlighten the interest, perceptions and practices of research work among a group of medical students.

Method: A cross-sectional study was conducted at a public sector medical institution in Punjab in which non-probability convenient sampling technique was used. After gaining ethical approval, a pretested validated questionnaire was distributed among medical students of 3rd, 4th and final year M.B.B.S. This was sought to identify the level of knowledge about the importance of scientific research in medical training. Perceived attitudes regarding the education benefits and barriers surrounding research activity among this population was also studied. 150 medical students were targeted for inclusion. The results were analysed using SPSS 20 and presented in the form of tables and graphs.

Results: 150 students participated in the survey and response was 100%. 96% participants acknowledged that research is important for medical advancements. However, only 56% were able to define research, 50.7% students have not read any research paper ever, 53% students said that their university has no proper infrastructure for research work. According to our analysis, students who had attended research workshops had better knowledge regarding research as compared to those who had not. The major reason behind lack of participation in research activities was lack of guidance and considering it as a hectic and time consuming process.

Conclusion: This study helped to explore awareness, interest and perceptions of

medical students regarding research. It also revealed many barriers regarding undergraduate research that should be addressed and resolved in order to improve the quality of undergraduate medical education by providing proper infrastructure and guidance about research work.

Title: Scopic review of connectivism (Virtual community of practice)

Authors: Shamaila Manzoor

Institute: Riphah International University

Aims: Back ground: with the rapidly evolving technological landscape and increased accessibility to information, new development in knowledge management has occurred, that can not be explained by older theories. The 'Connectivism' has been appeared to be learning paradigm of digital age. Aim: To highlight the cultural variations which affects the VCOP.

Method : The study was conducted in January 2019. Askery and O'Malley model has been used for this study. The data was collected by four data bases (Pub med, pschy info and ERIC) and grey literature. A total of 31,357 articles were found on these data bases, after deduplication and filtration 24 full text articles were selected. The main focus of this study was to find out the cultural factors responsible hampering the growth of Vcop. Several factors has been identified including society, fear of losing face, language, small group with in large group, power distance and finally horizontal versus.

Results: The study proposed the following reasons which has significant impact on knowledge management across the international boundaries. Individualism versus collectivism, in group versus out orientation, fear of losing face, power distance, horizontal versus vertical culture, achievement, ascription oriented culture and Language

barrier. All above stated factors plays a pivotal role in hampering the growth of virtual community of practice.

Conclusion: Introduction to knowledge sharing system, websites and online community web pages should be in accordance of cultural need assessment and identification to culture specific barrier to knowledge exchange. System should be compliant with member's perception, value and preferred style of communication, so the gap can be bridged.

Title: Development and Introduction of Objective and Structured Methods of Assessment in Chemical Pathology: A Case Study

Authors: Aamir Ijaz

Institute: Rehman Medical College

Aims: Assessment techniques in Chemical Pathology have not been revised for the last 20-25 years in CPSP and in Universities. Under the auspices of Pakistan Society of Chemical Pathologists (PSCP) modification of the assessment tools was carried out to develop and introduce objective and structured assessment in Chemical Pathology.

Method: Structured Assessment of Analytical Skills (SAAS), Quick Assessment of Data Interpretation Skills (QADIS), Task Oriented Assessment of Clinical Skills (TOACS) and One Best Choice Questions (BCQs) were developed for assessment in Chemical Pathology during 2013 to 2019. In 2013 mock TOACS workshops were facilitated at Karachi, Rawalpindi and Bahawalpur. In 2013 and 2014 two Distance Learning Programmes (DLPs) were conducted to develop cognitive domains of knowledge through BCQs. In 2015 and 2016 DLP3 was conducted; 74 students and 33 consultants from 20 institutes were enrolled. Gamification, students' and facilitators' feedback, interviews and focus group discussions were also done.

Results: High percentage of students strongly

agreed (69%) or agreed (46%) with all seven questions of the feedback proforma while neutral answers (10%), disagreed (3%) or strongly disagreed (0%) were fewer. Other students gave mixed answers. Maximum students strongly agreed to the questions of usefulness and content validity of the examinations (77% and 73%, respectively). Content analysis of interviews and FCD themes related to high students' satisfaction but less number of events and shorter duration of time was their main concern. Kappa coefficient and Cronbach's alpha for various TOACS stations were 0.72 and 0.81, respectively.

Conclusion: The objective and structured examination format designed for the assessment of Chemical Pathology showed high validity as indicated by students' feedback, in addition to adequate inter-rater agreement and internal consistency. These assessment tools are now part of FCPS examination of Chemical Pathology.

Title: Illness Acceptance, Diabetes Specific Distress and Quality of Life in Adolescents with type 1 Diabetes Mellitus

Authors: Rabab Zahra

Institute: Riphah International University, Lahore

Aims: Diabetes Mellitus is a chronic disease. T1DM can be acquired and inherited during the early age. It may affect quality of life of people suffering with this disease. Purpose of present study was to examine association between Illness Acceptance, Diabetes Specific Distress and Quality of Life in Adolescent's with T1DM.

Method: Adolescent's aged 13 to 19 years already diagnosed with type 1 Diabetes were included. Patients having congenital or acquired disorders were excluded. In this study data was taken from 70 male and female adolescent's with type 1 Diabetes Mellitus.

Purposive sampling technique was used to recruit the sample. Acceptance of Illness Scale (Revenson et al.,1984) was used to measure the level of illness acceptance; Diabetes Distress Scale (Fisher, et al.,2005) was utilized to access the level of diabetes specific distress; more Quality of Life was accessed by using the Quality of Life for Youth (Bujang, et al.,2018).

Results: The results suggest that illness acceptance has significant positive relationship with Quality of life in adolescents with type 1 Diabetes. The finding of the study also showed significant negative relationship between Diabetes Specific Distress and Quality of Life. Demographic variables (Duration of illness, Control over diabetes, Complete checkup) have significant association with quality of life. Results also revealed that Diabetes Specific Distress was the significant predictor of Quality of Life in chronic and recent type 1 diabetes adolescents. More over significant difference between Duration of illness, Control over diabetes and Quality of life was also found.

Conclusion: Illness acceptance and Diabetes specific distress plays an important role in Quality of life of adolescents with T1DM. There is significant negative relationship between diabetes specific distress and quality of life and significant positive relationship is present between illness acceptance and quality of life in adolescent with T1DM.

Title: Assessment of functional independence in Traumatic Spinal cord injury

Authors: Khadija Liaquat

Institute: Riphah international University

Aims: The goal of the study was to find the level of functional independence, gender comparison and most commonly affected level of spinal cord in patients suffering from traumatic spinal cord injury in Lahore.

Method: A cross sectional survey was

conducted in Lahore from march 2018 to July 2018 and data was collected from Lahore general hospital, Ghurki hospital, Jinnah hospital, Mayo hospital. 52 patients suffering from acute spinal cord injury were included in study by using non random sampling technique. We measure the overall status of health of patients using functional independence measure (FIM).

Results: Total 52 patients were assessed in this study. Out of which 50% injuries were reported at cervical level, 15.4% injuries were reported at thoracic level and 34.6% were reported at lumbar level. Percentage of males suffering from traumatic spinal cord injury was 61.5% which was higher than female 38.5%. The lowest functional independence level was recorded as 17 and maximal level was 116.

Conclusion: Within the studied population, the percentage of cervical injuries was more than thoracic and lumbar. Gender proportion in traumatic spinal cord injury showed that men were more prone to injury as compared to female. However, functional independence among cervical injuries is less than thoracic and lumbar.

Title: Assessment of pre-requisites for fourth year Surgery clerkship

Authors: Nismat Javed, Fahad Azam, Abida Shaheen, Hania Naveed

Institute: Shifa Tameer-e-Millat University, Shifa College of Medicine

Aims: The change in learning environment from pre-clinical to clinical years coupled with students' poor recall of curriculum components has always been a major problem for delivery of medical curriculum. We aim to assess the pre-requisites of surgery clerkship and the level to which fourth year students satisfied those pre-requisites.

Method: An observational survey followed by a focused group discussion was conducted.

The faculty of surgery department were invited to participate and the members who gave their consent were included as participants of the study.

Results: The participants were ten Surgery faculty members consisting of four Assistant Professors, two Senior Registrars, two facilitators and two consultants. The average number of sessions supervised by each faculty member during the eight week clerkship was 2.30 ± 1.10 . Six participants highlighted that their students did not have sufficient understanding of Anatomy and Embryology required for surgery clerkship. Five faculty members identified that their students did not have a solid understanding of pathological basis of disease. Furthermore, five faculty members believed that overall the students had adequate pre-requisite knowledge needed for Surgery clerkship. The p-value for the chi-square test was significant ($p=0.019$).

Conclusion: The variable trend in knowledge can be attributed to the fact that, despite curricular integration, basic sciences are not revisited when clinical subjects are being taught. Academic schedules in pre-clinical years are flexible but clinical schedules are much more focused and are less flexible in terms of study hours.

Title: Visual Fatigue through the Colour Blue: It's Utilisation in the News Bulletin

Authors: Mehroz Zohra

Institute: Riphah international university

Aims: 1. To investigate the rhetorical effect of blue color resulting in visual fatigue in audience through news bulletin 2. To analyze the role of blue color on psyche of viewers

Method: This study is mainly relied on mixed methodology by use of content analysis of result after the experiment of tears meniscus used schirmers test and conduct focused group discussion the data for this study was gathered

from three sources; 1) Eye fatigue experiment 2) focused group discussion 3) Content analysis. There are two major kinds of tests for visual fatigue: objective and subjective tests. Objective tests are based on optometric measurements. Subjective tests are in-depth interviews allowing us to determine if the person is more fatigued, if he/she has eye pain.

Results: 33.3% were normal, 57% were mild Fatigue and 9 % were the ones with fatigue hence the findings of this research suggests that blue colour did cause fatigue however, the intensity was to mild as the percentages show which are 57% mild fatigue and 33.3% were normal and 9 % only fatigue ones hence that means the colour did cause mild fatigue it is this findings that gives a direction to further more researches developing link between the colour used on screens that are causing damage to the viewers.

Conclusion: Blue light also flickers more frequently on computer screens' LED backlight controllers, and this flickering causes more eye fatigue than other colours like red or orange. The study provides a potential mechanism for developing link between the colour on screen and eye fatigue.

Title: Essential inspiration fulfills human requirements for proficiency, independence, and connection

Authors: Asia Raza

Institute: Riphah International University

Aims: In this paper theories of learning and its implications in teaching and learning will be discussed. Moreover this paper will address the ideologies to guide pupils to increase their knowledge. This paper would teach self will power abilities to scholars that support them in their upcoming development through various principles.

Method: Stages of Arksey & O'Malley were surveyed in this scoping review.

Results: The Behaviorist methodology notwithstanding discovering a great deal of investigating, inadequacies and neglecting to give answers to certain circumstances, stayed determined in tending to the requirements of the present student with its fundamental builds alongside some development and changes.

Conclusion: The worldview might be called wiped out or surrendered in theory yet for every single down to earth reason, it stays alive and remains steadfast to give a solid, complete and important learning background to the students.

Title: Pakistani Medical Journals: A despairing situation

Authors: Hania Naveed

Institute: Shifa College of Medicine, STMU

Aims: Researchers prefer to publish their scientific work in quality journals to help their research reach a wider audience worldwide. Local journals are preferred due to accessibility, low cost and other factors. We analyzed all recognized Pakistani medical journals for Higher Education Commission (HEC) ranking, Index Medicus/Medline indexation and impact factor.

Method: HEC recognized health sciences journals and Pakistan Medical and Dental council (PMDC) database was searched for all Pakistani health sciences and medical journals. Websites of all medical universities and colleges were also searched for their scientific journals. Those journals which were not recognized by both PMDC and HEC were excluded from the study. All included journals were analyzed for Index Medicus/Medline indexation on PubMed website, impact factor, HEC ranking and variation in the HEC ranking in the past five years.

Results: Out of the seventy recognized medical journals, only 4 (5.7%) were Medline indexed

with an impact factor ranging from 0.4 to 0.8. Thirty six (51.4%) medical journals were both HEC and PMDC recognized while twenty four (34.2%) were only PMDC recognized. Out of 46 HEC recognized journals, 12 were category Z, 18 were category Y, 2 were category X and 4 were ranked in W category. Out of 110 PMDC recognized medical colleges and universities, only 34 (30.9%) institutions have recognized medical journals while 76 (69.1%) do not have their research journals.

Conclusion: Researchers prefer high impact factor journals to publish their valuable research. Paucity of quality journals in Pakistan forces researchers to publish in international journals which is often not feasible due to high publication charges. Standards of existing journals need improvement and more quality journals should be established by medical institutions.

Title: Scoping Review of theories of cognativism

Authors: Muhammad Waqas Raza

Institute: Riphah International University

Aims: The traditional learning theories have undergone many changes in modern times. The purpose of this scoping review is to map the literature on cognativism paradigm to describe the practical implication of theories of cognativism in undergraduate medical teaching and to disseminate the research finding to policymakers.

Method: The scoping review followed the five key steps originally described by Arksey and O'Malley which include 1.) Identifying the research question. 2.) Identifying the relevant studies 3.) Study selection 4.) Charting the data. 5.) Collating, summarizing and reporting the results. A broad research question was defined including the research items and the appropriate databases were decided. The review was guided by the question "what are

the practical implications of cognativism that can be applied to improve learner's growth in undergraduate medical teaching? The related articles and references in the relevant articles were also searched to collect further information and map the literature.

Results: A google search of the key words revealed a total of 38 articles . A thorough literature search on three database i,e google scholar , searchgate and scihub was done .After removing the duplicate studies a total of 22 articles were reviewed. The search was then squeezed to last six years and a total of five full text articles were included in the study.Finally five full text articles were included in the review. The primary focus was Cognitive load theory in medical education n= 27 Multiple theories n= 6 Information processing theory n=2 Social cognitive aspect n= 3.

Conclusion: An understanding of core concepts of cognitive load theory are central to design effective instructional strategies. Further research needs to be done in order to identify the best practice guidelines to improve medical students' cognitive load level and overall growth as a learner.

Title: Metacognition - The Mind Connection between Medical Teacher & Students

Author: Tayyaba Rehman

Institute: Riphah International University

Aims: Medical students require metacognitive proficiency as they are expected to be professionals who need to assess, monitor and improve their performance throughout their medical careers.Aim of this research project is to understand how medical teachers can inculcate metacognitive skills in medical students and develop them into life long learners.

Method: A literature search about metacognitive strategies was performed;

based on the knowledge attained, a lecture and field trip on EPI program is designed. Metacognitive processes of analysis, monitoring and evaluation were addressed through various strategies. Questions, prompts and cues were used to assess the students. Monitoring of learning through clear objectives, scaffolding and schema formation was done. One minute papers, reflections and wrappers were utilised for evaluation. During this lecture and field trip , students develop awareness of their learning process and learn to use metacognitive skills for deep learning. With repetition , these skills equip the students to become lifelong learner.

Results: The whole exercise resulted in clear understanding of various metacognitive strategies and especially their practical application.Any learning activity ,without a focus on metacognition results only in superficial learning , with teacher and student unable to engage with each other and with the process of learning. It was also made clearly evident that only a teacher trained in application of such teaching strategies can install these skills in the students.In short , metacognition actually gives a purpose to each activity being done by the teacher or the student during the learning process.

Conclusion: Metacognition is the road to self actualisation, it enables one to reach beyond the visible horizons and utilise ones full potential.It is an intellectual approach, with practical strategies and skills ; a must know by medical teachers and students, for effective and life long learning.

Title: Optimal number of options in multiple choice questions in undergraduate medical assessment

Authors: Fahad Azam, Abida Shaheen, Hania Naveed

Institute: Shifa College of Medicine

Aims: Optimal number of options for writing multiple choice questions (MCQS) has been an area of debate in medical education. Restricting number of options for questions may increase reliability and more concepts could be tested in limited time. Our study aimed to investigate effect of number of options on Cronbach's alpha.

Method: A prospective cross-sectional study was conducted in which third year medical students were randomly assigned into three groups each time for five successive formative assessments in two integrated modules. Each group was provided with a formative test comprising of three, four and five multiple choice options respectively. Mean scores, average time taken to complete assessment and Cronbach's alpha for each group of every assessment were recorded.

Results: A total of ninety students participated in the study. The mean score for the students with three options was 21.30 ± 5.69 . Mean score of students with four options was 17.14 ± 5.07 whereas mean score of students with five options was 15.19 ± 5.76 . The Cronbach's alpha for questions with three, four and five options were 0.722, 0.79 and 0.657 respectively. Mean time taken to complete assessments was shortest with three options. With less number of distractors students took less time to complete assessments but highest reliability of the test was achieved with four options.

Conclusion: MCQs with three or four options might be a better strategy for assessments in medical curriculum as by adopting MCQs with three options, more concepts can be tested with good distractors in lesser time. Validity of assessment is highest with four options in MCQs and improves quality and discriminatory power.

Title: Multidisciplinary Research in Pakistan

Authors: Abida Shaheen, Fahad Azam, Hania

Naveed

Institute: Shifa College of Medicine

Aims: Multidisciplinary researches require a coordinated effort to bring several disciplines closer to provide complementary contributions, combine different expertise and offer multiple perspectives on a topic. Our study aimed to investigate ratio of multidisciplinary medical research in Pakistan.

Method: We collected data from latest issues of three Pakistani medical journals indexed in Medline/ Index Medicus and selected three journals from Eastern Mediterranean region with similar impact factor for comparison of data. We compared number of studies published in Pakistani journals and international medical journals for comparison of multi-disciplinary researches with studies conducted by a single department or specialty.

Results: Total number of articles in latest issues of Pakistani medical journals was 101 out of which 33 (32.6%) studies were multidisciplinary and 68 (67.32) were conducted by a single department. A paired t test shows p value less than 0.05. On the other hand 21 (52.5%) out of 41 articles collected from three EMR countries (Saudi Arabia, Qatar, Oman) were multidisciplinary and 20 (48.78) were conducted by a single discipline or department. P value was not significant.

Conclusion: Collaboration with different departments and specialties to conduct researches opens avenues for more researches and impact of such studies is higher in terms of application of data. Pakistani authors need to collaborate more to design multi-disciplinary studies.

Title: Use of e-Learning in Integrated Clinical Biochemistry

Authors: Saima Saeed, Sumreena Mansoor

Institute: Shifa college of Medicine, Shifa Tameer-e-Millat University

Aims: Modern day technology has introduced

different e-learning tools in medical education. The impact and usefulness of these e-learning tools is the main focus of this study.

Method: The study was carried out on the 1st year medical students of Shifa College of Medicine shifa tameer-e-millat university, class of 2023. Students were given questionnaire to fill after which qualitative and quantitative analysis were performed

Results: Students have shown they are equally comfortable using laptops and mobile phones for studies as shown by the data where in 51% showed preference for laptops. In regards to the data it is shown that 86% of people have stated that they would prefer lectures to be videotaped and furthermore 69% have expressed an interest in a both forms of learning being used to allow for a better leaning experience. A student recommended online courses as well as online formative assessments including Multiple Choice Questions and quizzes. One of the other suggestions was to have a Dropbox containing concept maps etc.

Conclusion: In essence what the data shows is that the most effective way for students to learn and understand is a combination of traditional methods and e-learning tools that allows for not only the students to learn effectively but for the teachers to be less burdened as well.

Title: An analysis of current trends of interventions in the field of Medical Education

Authors: Abida Shaheen, Fahad Azam, Hania Naveed, Afrose Liaquat

Institute: Shifa College Of Medicine, Shifa Tameer-E-Millat University

Aims: The field of Medical education is continuously evolving with the use of innovative strategies becoming increasingly popular. Our study aimed to examine trends

and domains being investigated currently in the field of medical education worldwide.

Method: We conducted a search on www.clinicaltrials.gov website to collect data about different types of interventions being conducted around the world as it is mandatory to register all types of trials on this website before commencing any intervention.

Results: Total number of medical education interventions being conducted around the world was 148 out of which most studies are being conducted in the US (32.4%) followed by Canada (14.86%). Most studies are being conducted to test new technology in the field of medical education (37.16%) This is closely followed by research conducted to improve communication skills and behavioral modification of medical students (35.13%) Other important types of medical education interventions being conducted are leadership studies (9.4%) and students' evaluation (6.7%).

Conclusion: Use of technology is becoming increasingly common worldwide as an intervention in medical education. Studies should also be conducted to observe other aspects of medical education such as the effect of introduction of humanities, behavioral sciences and programs to improve patient safety.

Title: Drop in performance of Medical students in summative assessments in the middle of an academic year

Author: Hania Naveed, Fahad Azam, Afrose Liaquat

Institute: Shifa College of Medicine

Aims: Medical students need constant motivation to perform well as their academic performance keeps fluctuating throughout the year. Aim of our study was to investigate the fluctuation in academic performance of third year medical students in the beginning and in the middle of an academic year.

Method: We conducted a cross sectional study at Shifa College of Medicine to assess fluctuation of scores in summative assessments in the first module of an academic year in comparison to summative scores in a module in the middle of the same academic year.

Results: Ninety two students participated in the study. The mean score for first module was 73.17 ± 9.50 . Mean scores for the module in the middle of the academic year was 64.60 ± 8.94 . The drop in the two scores was tested using t-test which was significant (p -value < 0.01). We used our results to create a model with both co-efficient being significant (p -value < 0.01). Module 2 score = $0.558 \times \text{Module 1 score} + 23.79$ The Pearson correlation for the two score was 0.593 which was significant (p -value < 0.01).

Conclusion: Performance of medical students keeps fluctuating during an academic year. Students need constant encouragement and use of innovative strategies to keep them motivated throughout the year.

Title: Patient Simulator in Medical Teaching: Ethical Challenges

Author: Inayat Ullah Memon

Institute: Indus Medical College, TMK, Pakistan

Aims: To follow the ethical principle of "Do no harm", patient simulators are being used since few years to teach medical students. This mode of teaching excludes real patients, with resultant adverse effect on some essential training components of training including of humanism, student/physician-patient relationship. This paper discusses these conflicting issues.

Method: A quantitative study was carried on faculty members of clinical disciplines of Indus medical college. These were grouped in two categories, Senior and Junior. A questionnaire

was prepared, with Likert scale, consisting of 16 questions, relevant to issues such as infliction of potential harms on real patients during clinical teaching, and benefits / strengths of clinical teaching on patient simulators / manikins. Some questions were related to any potential adverse effect of such teaching on humanism, student/patient physician and patient relationship. There were few open-ended questions seeking their views to resolve these conflicting issues in medical teaching.

Results: 1. 23 % Senior faculty favored clinical teaching solely on patient simulators 2. 49% Senior faculty suggested clinical teaching using real patients as well as manikins 3. 28 % of senior faculty opposed use of patient simulators in clinical teaching Among junior faculty: 1. 32% suggested use of patient simulators as sole method of clinical teaching 2. 55% suggested hybrid method for clinical teaching. 3. Only 13% disliked use of manikins in teaching of medical schools

Conclusion: Though there are variable inter-and intra-group views, amongst Senior / Junior faculty regarding use of real patient and manikins, but principle of ethics "Do No Harm", necessitates use of manikins in clinical study. To amicably settle the opposing views and follow ethical principles, a hybrid method may be evolved.

Title: Healthcare Needs of the Muslim Patient community in the Undergraduate Medical Curriculum

Author: Hameed ul Haq

Institute: Peshawar Medical College

Aims: Muslim patients have a unique set of healthcare needs that are related to their faith. The study aimed to recommend additional content that would better tailor the undergraduate curriculum to cater to these needs with the expectation that patients

would have these queries resolved by healthcare providers themselves.

Method: A quantitative descriptive survey design was adopted. A 46-item questionnaire formulated through a literature review was put forth to experts using the Delphi Technique. Experts were selected based on having an academic rank of associate professor and above or medical education credentials. Three iterative rounds were conducted for exploring consensus over a period of five months. Panel agreement of >70% was the criteria for inclusion.

Results: Items were categorized under 7 subject themes: Medicine, Psychiatry, Surgery, Gynecology, Obstetrics, Medical Ethics, and Islamic Studies. Consensus was eventually reached for 41 out of 46 items. These topics included but were not limited to “The Muslim patient in Ramadan: to fast or not to fast?” and “Muslim women and decision-making on pregnancy termination”.

Conclusion: The study suggested that the topics proposed herein were in fact legitimate faith-related healthcare needs of Muslim patients. Their inclusion would add value to the undergraduate medical curriculum and would train practitioners to improve patient outcomes more holistically.

Title: Career choices for post-graduation by Pakistani medical students

Author: Afrose Liaquat, Fahad Azam, Abida Shaheen

Institute: Shifa College of Medicine

Aims: There is increasing trend among Pakistani medical students to go abroad to pursue post-graduation. We conducted a cross sectional study to explore the reason for choosing to pursue post-graduation in Pakistan or going abroad for different reasons.

Method: We conducted a cross sectional study among 225 medical students and house

officers of Rawalpindi and Islamabad. We explored career choices of these students and their preference for countries to pursue post-graduation.

Results: Out of 225 medical students and house officers, 65.5% respondents stated that they would like to go abroad for post-graduation. 30% students stated that they would pursue higher studies in Pakistan whereas 5% students were indecisive. Lack of opportunities, low pay structure and poor portrayal of doctors' image on media were the most common reasons for choosing to go abroad. UK(40%), US(35%) and Australia (5%) were the most preferred countries for post-graduation by medical students.

Conclusion: Medical students perceive post pursuing post-graduation abroad as a good choice for their future career. Steps should be taken to improve opportunities for medical post-graduation in Pakistan.

Title: Can clinical competencies be learned by behaviorist approach? A Scoping Review

Author: Alishba Mukhtar

Institute: Riphah International University, Islamabad

Aims: Medical education has undergone a major transformation over the years. Apart from the critique on behaviorism, one of its practical implications is in competency/ outcome based education, where the behavior change is the desired outcome. The aim of this scoping review was to provide a compendious overview of relevant research.

Method: This scoping review is based on the five-stage framework proposed by Arksey and O'Malley. The initial research question was identified. The main focus of my study was to determine the role of behaviorist approach in acquiring the clinical competencies. Studies relevant to the topic were identified using different electronic databases. Article

selection was done using the Preferred Reporting of Items for Systematic Reviews and Meta-Analyses (PRISMA) statement. In the next stage, data charting of selected articles was done. Author, year, location of study and outcomes of selected articles were summarized. In the end all the findings were reported and summarized.

Results: The results depicted that outcome based education is underpinned by behaviorism. It is valuable when designing competency-based curricula. Specific objectives will make the students aware of what they are expected to learn and perform. What criteria will be used to evaluate them? It implies the formation of checklists and rubrics for assessment. It has its roots in feedback, simulations, role-modeling and other models of clinical teaching and learning. The clinical procedures with strict protocols (Eg, ATLS), psychomotor and some affective skills can be acquired using the behaviorist approach. Feedback and role modeling involves positive reinforcement from behaviorism.

Conclusion: We cannot know what goes on in people's minds. We can only target on the right (training) inputs and check for the right (behavioral) outputs. The most important link between behaviorism and outcome/competency based education is that teachers can arrange the external stimuli to bring about a desired outcome.

Title: Assessing Effectiveness of Student-Centered Active Learning Classroom Strategies to Enhance Student Engagement and Learning

Authors: Sohaila Cheema, Rachid Bendriss, Ravinder Mamtani

Institute: Weill Cornell Medicine-Qatar

Aims: There is increasing utilization of educational strategies like audience response systems and interactive discussions which shift

the focus from passive learning to student-centric active learning. The aim of our study was to assess the effectiveness of student-centered active learning strategies utilized in a global health course at Weill Cornell Medicine-Qatar.

Method: Interactive class discussions, audience response systems (clickers), poll everywhere questions and video-facilitated learning were introduced during didactic sessions in a three-credit global health course. We felt that these instructional strategies would be commensurate with the learning profile and educational background of our students. At the conclusion of the course, premedical students completed an anonymous survey to assess teaching effectiveness, student learning, engagement and participation.

Results: Survey results revealed students' overall satisfaction with active learning pedagogy. The vast majority of participants agreed that the use of videos during lecture discussions, interactive class discussions, and clickers during question and answer sessions improved their engagement and learning. Our study demonstrates the usefulness of active learning strategies in a high impact undergraduate medical education learning environment. It shows that utilizing the integration of interactive class discussion, clickers and video-facilitated learning along with the traditional method of teaching enhances participation, improves learning and students' critical thinking skills, interactivity with peers and provides a collaborative platform for discussion and engagement.

Conclusion: The study establishes that millennial students favor the utilization of active educational strategies compared to the passive teacher-centric methods of teaching to enhance student participation and learning. This also builds a community of learners who

learn to negotiate, collaborate in groups and teams, and communicate their thoughts effectively and confidently.

Title: Ostracism and its Effect on Psychological Distress in Students; Gender Differences on the Effects of Ignorance and Exclusion

Author: Moafia Dastagir, Rakia Ashraf

Institute: Riphah International University

Aims: The present study explored the effects of Ostracism on Psychological Distress in Students. Moreover it aimed to evaluate the effects of Ostracism on gender differences. Correlation research design was followed to conclude the results of 400 students of age ranges 15-25, (male=200, female=200) from different educational institutes of Lahore.

Method : Selection of participants based on previous literature. Ostracism Experience Scale for Adolescents (oes-a; ostracism and its effect on psychological distress in students; gender differences on the effects of ignorance and exclusion Gilman, 2013) and Kessler's Scale for Psychological Distress (K-10; Kessler, 2002) was used to measure Ignorance, Exclusion, and level of Psychological Distress Respectively.

Results: Pearson Product Moment Correlation Analysis was used to check, relationship between Ostracism and Psychological Distress. Independent Sample t-test was used to evaluate the effects of Ostracism on gender difference (male, female) and Psychological Distress. On the basis of analysis it was concluded that Ostracism and Psychological Distress had significant positive relationship. Females experienced higher Ostracism and had more Psychological Distress as compared to males.

Conclusion: On the basis of this information future awareness and interventions would be plan for minimizing bullied behaviors at educational institutes and advanced

intervention plans would be introduced so that level of distresses due to excluded behaviors will be decrease and students become able to perform better in their academic activities.

Title: Item Analysis of One-Best Type MCQ's

Author: Mubashir Sharif

Institute: Private

Aims: MCQs are commonly used as an assessment tool in medical curriculum. However, if poorly constructed, MCQs can fail to serve their purpose. Objective: To assess the quality of one best type MCQs used to evaluate 2 nd year BDS students in the subject of preclinical prosthodontics

Method: Forty-eight undergraduate dental students of 2 nd year BDS were subjected to a test in the subject of Pre-Clinical Prosthodontics. The test comprised of 25 'one-best type' MCQs, each with four choices a – d. Quality of each MCQ was tested using item analysis formulas. Data was analyzed using SPSS version 24. Difficulty index, discrimination index and distractor efficiency were calculated.

Results: Majority (48%) of items had acceptable difficulty index, while 48% had good discrimination index 0.35). Of the 100 distractors, 29% were non-functional; 44% MCQs had only 01 nonfunctional distractors (NFDs) and 24% had no NFDs.

Conclusion: Questions used in this test should be revised and improved before use in future assessments.

Title: The Need for Implementation of Inter Professional Education in Undergraduate Health Professions Colleges in Pakistan

Author: Attia Sheikh

Institute: CMH Multan

Aims: Interprofessional collaboration and team work is at the backbone for any health professionals' task force in a health care

setting. Unless teams of doctors, nurses and other paramedical professionals work alongside one another in harmony and with successful communication and effective collaboration the patient care cannot be optimized.

Method: In order to find out the reasons why IPE has not yet been introduced to the mainstream colleges of different health professions in Pakistan, a cross sectional study is designed. The purpose of the study is to assess the status and barriers of IPE implementation in different medical, dental, nursing, pharmacy and other health professions colleges in Pakistan. A Survey will be done using a questionnaire. The questionnaire is planned to be emailed to the faculty (from different health professions) and responses collected and analyzed. Those who will not be reached via emails will be handed over hard copies

Title: Predicting the strugglers: A case control study at a private medical college in Islamabad

Author: Faiza Kiran

Institute: Riphah International University, Islamabad

Aims: To identify potential predictors of undergraduate students who struggle during their medical training

Method: Design: Case-control study. Cases were students who had experienced academic or personal difficulties that affected their progression on the course ("strugglers"). Controls were selected at random from the corresponding year cohorts, using a ratio of two controls for each struggler. Setting: Shifa College of Medicine Duration of study: 2015-2017 Participants: Students who entered the MBBS course, over five consecutive years. Statistical tests applied for data analysis: For univariate analysis we compared dichotomous variables with Chi Square tests and continuous

variables by Mann-Whitney tests. For multivariate analysis we tested for independent predictors by binary logistic regression.

Results: Almost 15% of students over a five-year tenure in a medical college were identified as strugglers. Significant independent predictors of students being in this category were age (2.25, 95% confidence interval 0.178 to 0.700), gender (2.19, 95% confidence interval 1.552 to 6.811), foreign student (1.98, 0.024 to 0.873). Male sex was a significant risk factor (0.002) as was a Premedical mode of exam (0.008, 1.309 to 5.971).

Conclusion: Gender, age, foreign nationals, class and premedical mode of exam were five factors identified as predictors of poor academic performance.

Title: Role of supervisors as mentor in the academic performance of post graduate doctors in a public sector hospital of Karachi

Authors: Hafeez Ud Din, Ambreen Usmani.

Institute: AFIP Rawalpindi

Aims: To identify the role of supervisors as mentor in the academic performance of post graduate doctors in a public sector hospital of Karachi

Method: In this study pre-test scores of mentees and non mentored trainees (control group) were compared with the post-test scores. A total of 91 post graduate trainees (including 6 x anaesthesia, 8 x dermatology, 12 x medicine, 15 x paediatrics, 3 x pathology, 8 x surgery and 39 x radiology) and their supervisors were enrolled in the study. The academic performance of post graduate trainees was assessed at the start of this study. Then the trainees were randomly assigned to 2 group labeled as A and B. Group A was given mentoring sessions on fortnightly basis for three months.

Results: There were 21 males and 70 female

trainees with a male to female ratio of 1:3.3. The ages of the trainees ranged from 26 to 43 years with 69.23 (n 63) of the trainees ranged from 29 to 33 years. There was a significant difference between pre test scores and post test scores, both at 3 months and at 6 months, in group A where the students were subjected to mentoring between baseline and 3 months; the median score at both 3 month post-test and 6 month post-test was found to be significantly higher than the median score at pre-test

Conclusion: On the basis of this study it is concluded that mentoring by supervisors has a significant impact on the academic performance of the post graduate trainees in our set up as well

Title: A study of student and teacher understanding and experience of feedback on knowledge based assessment, and its effects on learning, with implications for future design

Author: Riffat Shafi

Institute: Shifa Tameer-e-Millat University

Aims: The importance of feedback as a key component of formative assessment has been acknowledged by many researchers. This study aimed to explore the understanding of faculty and students towards the effectiveness of feedback on knowledge assessments, and design improved methods for providing effective feedback which will provide substantial knowledge gains.

Method: Semi structured interviews were conducted with 2nd year MBBS students who had completed their 1st year at Shifa College of Medicine and with basic sciences faculty members involved in teaching them, to determine their views about feedback sessions on knowledge assessments. Interviews were analyzed qualitatively, and framework for effective feedback on knowledge assessment

was developed using grounded theory.

Results: Although formative assessment was rightly understood to be for learning purposes, grades were considered necessary. This appeared to derail initial formative attempt to motivate learning. This study suggested modifications at three levels, early years of school, on entry into medical college and during undergraduate years to ensure that students use feedback effectively to enhance learning. Using constructivist grounded theory approach a framework was developed for effective feedback on knowledge based assessment, which included feedback after regular and frequent assessment that is detailed, immediate, individual, interactive and specific, removes misconceptions and provides guidance.

Conclusion: Major adjustments in the assessment-feedback process are required to promote self-directed learning and effective utilization of feedback for improved learning

Title: Cognitive Processes in Bedside Teaching that Foster Clinical Reasoning in Medical Students

Author: Tara Jaffery, Nadia Saeed, Ayesha Rauf, Ali Tayyab

Institute: Riphah International University, Islamabad

Aims: Clinical Reasoning refers to the cognitive processes required by clinicians to diagnose and manage patient's medical problems. The learning of CR skills is a complex task. Workplace based patient encounters, followed by discussions with clinicians, are crucial part of clinical clerkships

Method: A naturalistic study design in the real life inpatient setting was used to explore the cognitive processes that facilitate CR in the patient encounter of fifth-year medical students during BST in medicine, surgery, pediatrics and obstetrics, and gynecology

clerkships of Shifa College of Medicine. Cognitive processes were identified using Stimulated Recall procedure. The data were analyzed using qualitative methods of constant comparative analysis, associated with the grounded theory approach

Results: We identified several themes in our analysis which represented cognitive processes recalled during CR instances in BST. Application of students' prior knowledge to patient care, discussion of clinical concepts in the context of the patient's case, and giving justification for responses during the discussion were the most frequent themes. The cognitive processes related to CR were identified at all stages of the student-teacher interaction : while presenting the history and physical examination, formulating a differential diagnosis, and developing management plans for the patient. The themes were independent of disciplines

Conclusion: CR processes start very early in the student-patient interaction and continue in all subsequent stages of the encounter. Implications from our study may be used to develop BST strategies to foster CR in medical students

Title: Awareness of the students towards inter-professional education at the Faculty of Health and Medical Sciences, Taylor's university, Malaysia

Author: Farzana Rizwan, Imam Shaik, Raja Ahsan Aftab, Roland Gamini Sirisinghe, Rusli Nordin, Sreenivas Patro Sisinthy

Institute: Taylor's University, Malaysia

Aims: The practice of health sciences involves numerous situations where interaction and integration of various disciplines play a vital role for optimizing the diagnostic and therapeutic benefits to the patients and communities. The effectiveness of inter-professional teamwork is widely recognized as

a key component of high quality patient care.

Method: A pilot study was designed by including twenty (20) students from each school (i.e. medicine, pharmacy and biosciences). All the data collected from the respondent was compiled and analysed by using appropriate statistical method. Our university implemented restructuring of the administrative framework in the recent past. One of the changes introduced was merging of various faculties under one cluster. Hence, School of Medicine has been placed under the Faculty of Health and Medical Sciences (FHMS) together with Schools of Pharmacy and Biosciences. One of the aims of this restructuring was to promote interaction between the students and faculty members.

Results: Altogether, 46 students including 25 (54.3%) from school of biomedical science, 13 (28.3%) from school of medicine and 8 (17.4%) students from school of pharmacy participated in the survey. Majority of respondents were female (n=34, 73.9%) and belonged to 1st year of their study (n=35, 76.1%). Of the 10 (21.7%) respondents that were aware of the term inter-professional education, majority of them were female respondent (n=8), Chinese ethnicity (n=7), belonged to biomedical science group (n=6), belonged to year 1 (n=8) and had no family healthcare professional among the family (n=5). None of the respondent demographic had any statistical association with respondent awareness of IPE. Of the 10 respondents aware of IPE, 3 of them had an adequate knowledge of IPE. Our analysis suggest that none of the student demographic factors had any statistical significant association with respondent's knowledge of IPE. On the other hand, of the 10 respondents that were aware of the term IPE, 7 of them had a positive attitude towards IPE statements. Respondent's professional course (P 0.049) and year of study (P 0.016) had a statistical

significant association with the attitude towards IPE. No correlation was observed among respondent's knowledge and attitude scores ($P=0.71$)

Conclusion: Awareness and knowledge of IPE was low however majority of respondents demonstrated positive attitude towards IPE thereby suggesting students' willingness to adapt and learn more about IPE.

Title: Students' Self Perceived Teamwork during Community Based Interprofessional Education

Author: Endang Lestari

Institute: Department of Medical Education
Faculty of Medicine Universitas Islam Sultan Agung Semarang Indonesia

Aims: The interprofessional healthcare team is an important component of community based healthcare service, and is most effective if skills of shared understanding and mutually respectful collaboration are developed during students training. These skills can be learned through interprofessional community based education.

Method: A total of 254 students participated in Sultan Agung Community Based Interprofessional Education (SACBIPE) with 109 medical students, 61 midwifery students and, 84 nursing students. Students are divided into 30 groups of 7 and were immersed in the rural village for two weeks. Each group was responsible for a neighborhood group, which normally consists of 25-30 families. Furthermore, students run learning activities according to the design of the SACBIPE program. A survey was conducted to evaluate students' self-perceived teamwork performance during the SACBIPE program employing Teamwork Perception Questionnaire (TPQ).

Results: Results The Kruskal–Wallis statistical analyses revealed that the median scores of all

items of subscale 'communication and mutual support' differed significantly among groups ($p=0.000$). However, students of all professions had similar perception toward subscale 'team structure and leadership' and 'situation monitoring' ($p=0.25$ and 0.13 , respectively).

Conclusion: Team structure and leadership as well as team monitoring could be developed during the program. However, despite students had been working together, the finding indicated that poor interprofessional communication and mutual support were reported by all groups and conveyed to be the major barriers to achieving optimal teamwork in community.

Title: Factor Analysis Correlated to Job Satisfaction of Doctors Specialist Obstetrics and Gynecology in Sectio Caesarea Action on the National Health Insurance System

Author: Nasrudin AM, Fridawaty Rivai, Khalid Saleh

Institute: Faculty of Public Health Hasanuddin University Makassar

Aims: In Indonesia, the National Health Insurance System (NHIS) is an implementation of law No 40 of 2004 about the National Social Insurance System in health sector with universal health coverage (UHC) concept. NHIS is an Indonesian government program aimed to improve the health standard of all people in Indonesia.

Method: To analyze the factors related to job satisfaction of doctor specialist for obstetrics and gynecology toward Sectio Caesarea in National Health Insurance system. The study was conducted in Makassar. The number of samples was 73 doctors specialist for obstetrics and gynecology (SpOG). Data were obtained by using questionnaires to measure the factors that affect job satisfaction on challenging work, appropriate rewards, working conditions and co-workers by

adopting and adapting the standard of job Description Index (JDI) developed by Smith in Gibson. The result of this research is analyzed by using Spearman test

Results : There is correlation among transparency and remuneration toward job satisfaction of the doctor specialist for obstetrics and gynecology in NHIS. There is no correlation among control over work and prerogative obtain need service on specialist doctors for obstetrics and gynecology in NHIS.

Conclusion: Transparency, remuneration and working conditions have a significant correlation with the satisfaction of doctor specialist for obstetrics and gynecology in Makassar. While control over work and prerogative obtain need service have no correlation to job satisfaction of doctor specialist for obstetrics and gynecology on Sectio Caesarea in NHIS

Title: Faculty development programs (FDP) improve the quality of Short Answer Questions (SAQ) items'

Author: Hamza Mohammad Abdulghani

Institute: College of Medicine King Saud University

Aims: Students learning is driven and enhanced by assessment, thus development of high quality test is an important skill for educators. SAQs are recently introduced to assess student's cognitive skills of critical thinking and problem solving skills. Review has shown poor quality items writing by the faculty.

Method: This was a quasi-experimental study, conducted with newly joined faculty members. Many workshops were conducted to improve the quality of the constructed SAQ items. Post assessment analysis was carried out for the SAQ items for their difficulty and discriminating indices, reliability and Bloom's cognitive levels based on the courses

assessment of endocrine, gastro-intestinal, hematology, and reproduction blocks. The analysis was compared with the analysis of the items before FDP workshops.

Results: Significant improvement was found in the difficulty index values to be pre- training to post-training ($p = 0.005$). SAQ with the moderate difficulty and higher discrimination were found to be more in the post-training tests items in all four blocks. Easy questions were decreased from pre to post training (31.4 % to 24.9 %). Significant improvement was also reported in the discriminating indices from pre to post 91.6 % to 94.7 % after training ($p = 0.149$).

Conclusion: The SAQ written by the faculties without participating in the faculty development programs (FDPs) are usually of low quality. This study suggests that newly joined faculties need active participation in FDPs as these programs are supportive in the improving the quality of SAQ items writing.

Title: Assessment of research methodology concepts through critical appraisal among undergraduate medical students and their perception: A Single Centre Study

Author: Imad ud din Saqib

Institute: STMU Islamabad

Aims: Evidence based medicine is an interplay of individual clinical acumen and best available evidence through scientific systematic research. With the advent of modern medicine in the last two centuries, medical education has seen and continues to experience its revolutionary effects.

Method: A mixed method study was conducted in which third year MBBS students were assessed in a group through power point presentation regarding different concepts of research while critically appraising a research article. Quantitative and qualitative data were collected. Descriptive statistics were

calculated, as well as thematic analysis was done.

Results: From a total of 102 participants, 58 were male and 42 were female. Majority of the participants (81.4%) achieved an average or a good score and only 18.6% achieved a poor score. Six themes were generated. General enthusiasm about the activity was noted among participants who considered it beneficial. However, only a few were in the favor of incorporating this activity as a mandatory component in undergraduate studies.

Conclusion: Incorporating research in a mandatory longitudinal theme component as part of undergraduate medical studies seems a potential method of laying the foundation for future physician scientists

Title: Unprofessional behaviors of Physicians, as perceived by patients

Author: Nighat Majeed

Institute: Riphah International University, Islamabad

Aims: The American Medical Association has identified four distinct forms of unprofessional conduct by physician's inappropriate behavior, disruptive behavior, harassment, and sexual harassment. The common unprofessional conduct in the workplace are intimidation or bullying, sexual harassment, rude and loud comments, offensive and abusive language, persistent lateness in joining activities, attending meetings

Method: Study Design: Qualitative Study Type: Qualitative narrative study Study Duration: Six months Sampling Technique/Design: Convenient sampling Inclusion Criteria: All patients who consented to participate Exclusion Criteria: Very sick and moribund patients will be excluded from study Instrumentation :(what instruments you will use to collect data?): A semi structured

questionnaire will be prepared for questioning from patients including following questions. Who are the doctors that you feel uncomfortable with (or unprofessional)? Why? What happened with him/her? What did you expect from him/her?

Results: I will interview 40-50 patients individually regarding their perceptions on unprofessional behaviors they experienced from physicians ever in their life. Interviewees will recall and the personal experiences or observations of misbehaviors that had occurred during their consultation time with doctor during treatment or hospital stay (who said what). I will record the demographic data of patients

Conclusion: The recorded interviews will be transcribed; thematic analysis of quantitative data will be made by generating codes and themes. Of interviews, field notes and other relevant documents available (e.g., medical records). Data collection and analyses were done concurrently to guide the sampling process.

Title: Perception of Plastic Surgery residents about Reflective practice in their training

Author: Muhammad Mustahsan Bashir

Institute: Riphah International University, Islamabad

Aims: Background: 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.

Method: 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.

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.

Title: Evaluation of Blocks Implementation: Levels of Student Satisfaction on Learning Processes and achieved Learning Outcomes

Author: Shulhana Mokhtar, Syamsu Rijal, Nesyana Nurmadilla, Berry E. Hasbi

Institute: Medical Faculty, Universitas Muslim Indonesia, Makassar

Aims: Evaluation is carried out in the context of national quality control of education as a form of accountability in implementing

education to interested parties. The evaluation is carried out on students, institutions and educational programs on formal and non-formal channel for all levels, units and types of education.

Method: This is a descriptive study using cross sectional approach. Research subjects are students of semester 1, 3, 5 and 7 of Medical Faculty, Universitas Muslim Indonesia, Makassar. They are given questionnaire of evaluation of blocks implementation in the form of a link to the Google document format. https://docs.google.com/forms/?authuser=1&usp=forms_ald All the students have to complete the questionnaire after finishing the blocks.

Results: In general, students show a very good level of satisfaction, both in the learning process and in the learning outcomes achieved. Average level percentage of semester 1 students are 93.4% for the learning process and 88.9% for achieved learning outcomes, semester 3 are 95.9% and 93.2% respectively, semester 5 are 96% and 95.7%, and semester 7 are 97.8% and 89.2%.

Conclusion: Although the questionnaire showed very good results, there were several aspects that had to be studied more deeply to get the actual evaluation results.

Title: Could Students' Assess Themselves? Comparing Students' Self-Assessment and Tutors' Assessment

Author: Umatul Khoiriyah

Institute: Department of Medical Education, Faculty of Medicine, Universitas Islam Indonesia

Aims: Self-assessment is an essential skill for a lifelong learner such as a doctor. By conducting self-assessment, a doctor is able to understand the strengths and weakness by which he/ she could conduct improvement. Medical students should be trained how to

conduct self-assessment.

Method: First year students (n=90) completed self-assessment in Block Neuro musculoskeletal. The self-assessment scale on active learning and critical thinking (SSACT) was used as student self-assessment tool. They filled this assessment at end of tutorial meeting of learning unit 1, 3 and 4. The students' self-assessment in these three units was then correlated with tutors' assessment using Pearson correlation

Results: The average of students' self-assessment in three learning units correlated significantly with the average of tutors' assessment ($p < 0.01$). The students' self-assessment in unit 1 and 3 also has significant relationship with tutors' assessment in the intended unit ($p < 0.01$). On the other hand, students' assessment in unit 2 did not have significant relationship with tutors' assessment.

Conclusion: Students are quite able to conduct self-assessment. Their accuracy to assess themselves is relatively good; however, they need more practice to judge their own tutorial performance. Tutors' feedback is also required in order to increase students' skill in assessing themselves and to take learning improvement using the result of self-assessment.

Title: Evaluation of effectiveness of teaching physiology by video session

Author: Shazia Ali

Institute: Riphah International University

Aims: Educational videos which are a part of visual aids, are used to deliver content of various disciplines in medical sciences for the better performance of students. Therefore, this study aims to determine the effectiveness of video sessions in teaching physiology to medical students.

Methods: An experimental study based on 77 medical students from second year MBBS was

carried out after taking informed consent. Head and Neck module was taught by interactive lectures, at the end of module a pre-test of 25 MCQs was given. After which a video session of 30 minutes was carried out on same day by showing videos on the topics, assessed in pre-test. A post-test of same MCQs was done after session. Data was analyzed by SPSS version 25. Marks of pre-test and post-test were compared by using paired-t test. P-value of ≤ 0.05 was considered statistically significant.

Results: A total of 77 medical students took part in pre and post-test of video session. The results of post-test responses (54.96 ± 3.06) were statistically higher (P value=0.000) as compared to pre-test responses (49.64 ± 3.37).

Conclusion: Teaching physiology was effective by using video session as a tool for understanding and clarification of concepts. Therefore, video session along with interactive lectures are recommended for future Physiology teaching.

Title: Academic stress and menstrual disorders among female medical students in Lahore

Author: Misbah Waris

Institute: Riphah University, Islamabad

Aims: To find out the frequency of menstrual disorders among female medical students in Lahore.

Method: Data was collected from different medical universities of Lahore after taking ethical consent, i.e. King Edward medical university, superior university, MARS institute of health sciences, University of Lahore, Lahore Campus and University of Sargodha Lahore Campus. A Comparative survey was conducted from January 2015 to June 2015 and 347 students were recruited for the study. All the medical students having age 18 to 25 years, the medical students with or without

history of menstrual disorders were included in the study. Students with history of alcohol, smoking, athletics, pregnancy, recent history of abortion or miscarriage, poor diet habit were excluded.

Results: Stress is a leading factor towards menstrual disorders. As found in current study hostilities students are more prone to stress as 108 hostilities students were strongly agree with the academic pressure and 79 day scholars were stressed due to academic pressure. And hence researcher also found that dysmenorrhea is found in 38.33% (hostilities) and 25.07% in day scholars. Oligomenorrhea 10.15% in hostilities, 9.80% in day scholars and menorrhagia 8.65% in hostilities and 6.92% in day scholars.

Conclusion: It was concluded that female medical students specially hostilities students were more prone to academic stress that's why menstrual irregularities e.g. dysmenorrhea, pre-menstrual symptoms, oligomenorrhea, amenorrhea and menorrhagia were more common in them as compare to day scholar students

Title: A step towards social inclusion for persons with special needs- Medical Student's Perspective

Author: Saima Rafi, Tahira Jaffar, Mansoor Ahmed Qazi

Institute: Shifa College of Medicine

Aims: Social Inclusion is "the process of improving the terms on which individuals and groups take part in society—improving the ability, opportunity, and dignity of those disadvantaged on the basis of their identity". Medical education is in a need to expand the strategies and to create a learning environment for teaching.

Method: An exploratory study was conducted among 105 students of year 4 attending the clerkship of community and family medicine at

Shifa College of Medicine, Islamabad Pakistan from Nov 2017 to Oct 2018. The undergraduate students visited the persons with special needs at Care for Special Persons Foundation, Islamabad. During three hours interaction, Special persons were engaged in different recreational activities. Following the visit, focused group discussions were carried out using an interview guide and audio recording was done. Then the data was transcribed and various codes were generated.

Results: Thematic analysis was done by which four main themes were generated from the data; (a) searching for threads of the divine (b) connection and bonding (c) accomplishment to actualization (d) pool of ideas for future activities.

Conclusion: Students felt the importance of interacting and engaging with the persons with special needs through different entertaining activities, which require little effort but can have greater impact on the psychosocial health of this marginalized section of the community.

Title: Impact of Chronotype on sleep quality and daytime sleepiness in medical and dental students

Author: Ayesha Haque, Sadaf Mumtaz, Ambreen Gul, Humaira Shoaib

Institute: HITEC-IMS, Taxila

Aims: The role of the circadian rhythm in determining pedagogic performance is recognized, but underexplored. Moreover, low academic achievement attributed to evening chronotype may be linked to poor sleep quality and excessive daytime sleepiness.

Method: Using non-probability convenience sampling, a total of 215 medical and 47 dental students were included in this cross-sectional descriptive survey. Chronotype was assessed by employing a validated, Morningness-Eveningness Questionnaire (MEQ). To gauge the quality of sleep, Pittsburg Sleep Quality

Index (PSQI) was used. Daytime sleepiness was estimated by Epworth Sleepiness Scale. Data was analysed using SPSS version 20.

Results: Compared to the morning and intermediate type participants, evening type participants experienced significantly more day time sleepiness ($p < 0.05$). Accordingly, there was a positive correlation between eveningness and poor sleep quality ($r = .53$). Out of a total of 245 respondents, 105 (42.8%) were boys and 139 were girls (56.7%). The mean age was 20.4 ± 0.41 years. Of all the participants, 39% ($n=96$) were categorized as evening type, 27% ($n=66$) were classified as morning types and 34% ($n=83$) of the students were placed in-between the two types and labelled as intermediates. No significant correlation was found between chronotype and age, gender or field of study.

Conclusion: Students with evening type chronotype have poor sleep quality and experience considerably more daytime sleepiness. Determinants of poor academic performance needs further exploration.

Title: Knowledge of use of Miswak (Chewing Stick) in Medical and Dental students in Private Medical and Dental College of Pakistan

Author: Ambreen Gul, Sadaf Mumtaz, Ayesha Haq, Amal Ahmed, Monal Fatima, Alishba Iftekhara Sana Irfan

Institute: HITEC- Institute of Medical Science

Aims: The World Health Organization (WHO) recommends and encourages the use of Miswak sticks as an effective tool for oral hygiene (WHO 1984) due to its anti-fungal, anti-microbial activities. Objective: Our study aimed to disclose variations in oral hygiene habits among medical and dental students and their knowledge of miswak use.

Method: Data was analyzed using SPSS version 21, where p value is greater than 0.05 was

considered significant.

Results: Students rated the use of toothbrush and paste [$n = 59(67\%)$] superior to miswak use [$n=3(3.4\%)$], p value < 0.05 . Forty seven percent of students considered the use of toothbrush to be more beneficial while the knowledge of use of miswak was seen in [$n=26$ (30%)] as per cultural reasons. The frequency of toothbrush use was twice a day in 53% ($n=47$) and Freshness and whitening of teeth after toothbrush use was noticed by 57% ($n=56$) of students. Only 43% ($n=37$) of students knew the procedure of using miswak. Even though the use of miswak was only 3% amongst the students; however if given the choice, students preferred to use both methods [$n=55(66\%)$] i.e. tooth brush plus miswak.

Conclusion: Our results show that the knowledge of use of miswak is minimal due to the lack of awareness of its beneficial properties. Students preferred to use both miswak and toothbrush if proper education and awareness is provided.

Title: Awareness of acquiring clinical communication skills in first year Medical and Dental students in Private Medical and Dental college of Pakistan

Author: Sadaf Mumtaz, Ayesha Haq, Ambreen Gul, Amal Ahmed, Sana Irfan, Urwah Qaseem, Alishba Iftekhara, Monal Fatima

Institute: National University of Medical Sciences, Rawalpindi, Pakistan

Aims: The optimal model of health service delivery by World health organization requires the attributes of seven star doctor with communication skill as one of the attribute Objective: To identify and correlate awareness of acquiring communication skills in first year medical and dental students keeping in view their age, gender differences.

Method: A cross-sectional descriptive study conducted from May-August, 2019 at HITEC-

IMS. All first year undergraduate medical and dental students (n=148) were included. We used communication skills attitude scale (CSAS) with items representing positive attitude scale (PAS) and negative attitudes scale (NAS) towards communication skills^{2,3}. Pearson correlation of 0.7 was considered statistically significant for attitudes (PAS & NAS) and other variables.

Results: PAS items revealed that 98% of students agreed that communication skills are essential and can assist in respecting patients (95%) and colleagues (87%). Bulk of students (96%) considered it to facilitate their team working skills. NAS items showed that only 5% of students believed that communication skills learning is not important for them. One third of students (33%) thought that they can pass examination with poor communication skills. Albeit for 29% students, it was hard to admit having some problem with their communication skills. There was no significant correlation found between PAS/NAS scores and gender, age, educational and social background.

Conclusion: Majority of students agreed that they need effective communication skills in early years of training. No significant correlation was found between PAS/NAS and other variables, possibly due to rise in awareness and globalization.

Title: Critical Care Entrustable Professional Activities of Undergraduate Nurses

Author: Gideon Victor, Ahsan Sethi

Institute: Institute of Health Professions Education & Research; Khyber Medical University

Aims: Competent critical care nurses are important for safety and quality of nursing care. While, new nurses continue to feel unprepared, lack confidence, and lack of competence for clinical practice. Entrustable

professional activities (EPAs) provide solution to such problems. This study will aim to develop entrustable professional activities for undergraduate nurses.

Method: EPAs will be developed with three step approach. Firstly, identification of critical care entrustable professional activities from systematic literature review. Secondly, interviews from critical care experts including educators and practitioners will be conducted. The purpose of interviews is to contextualize, confirm, expand and it may discover new EPAs. Thirdly, two rounds of Delphi will be conducted to refine the EPAs. The EPAs with aggregated 80% consensus will be finalized for critical care nurses. Permission from research ethics committee, informed consent and voluntary participation would be ensured in conduct of study.

Results: A list of EPAs following standard framework depicting competency, domain of competency, milestones and level of entrustment. Face validity of EPAs will be obtained. Theme and codes from expert interview. Table of EPAs depicting, confirmation, expansion and new EPAs. Delphi approach; result of 1st and 2nd round. Final display table of critical care EPAs.

Conclusion: Critical care entrustable professional activities are essential to guide the practice and assessment of nurses. It would facilitate them to become, competent, safe, independent and confident practitioners.

Title: The frequency and reasons of burnout among Public Sector Medical Students of Faisalabad, Pakistan

Author: Farza Riaz, Fatima Riaz, Freena Qaisar

Institute: Faisalabad Medical University

Aims: It's generally perceived that medical education is psychologically toxic and more stressful than any other professional course. It causes students to encounter multiple

stressors during a long period of five years, resulting in burnout. The aim of this research is to assess frequency and reasons of burnout among medical students.

Method: A cross-sectional study was conducted in a public sector medical college of Faisalabad. It included all years of medical students. After taking ethical approval from institutional ethical review committee, equal number of questionnaires were distributed in each class using convenient non probability sampling. Copenhagen burnout inventory (CBI) questions were included in questionnaire. All three domains of CBI, personal, work related and client related were assessed. Out of 450 questionnaires distributed, 341 were returned back. A five-point Likerts scale was used. Reverse Scoring was applied in positively worded questions. Data was analyzed using SPSS 22.

Results: 341 students participated in this study. 66.3% were females and 45.2% were boarders. 75 (22%) students experienced high level while 188 (55.1%) students experienced intermediate level of burnout. Personal burnout was the highest (75.7%), followed by work-related (70.6%) and peers/patient related burnout (55.0%). Burnout was higher in clinical years, in females (81.0%) and in boarders (79.2%). Highest burnout was found in 4th Year (82.5%). Analysis showed significant association between prevalence of burnout and whether a medical student is boarder or non-boarder ($P=0.046$) Lack of education and facilities available for mental health care and excessive workload were found most common reasons.

Conclusion: Prevalence of burnout was found very high along with a significant association between prevalence and whether a medical student is boarder or non-boarder. This study also identifies several reasons which would help the administrations to develop

better strategies in order to decrease the level of burnout in students, especially boarders.

Title: Burnout during Pathology Residency training: A cross sectional institution wide study

Author: Helen Mary Robert, Muhammed Aamir, Zujaja Hina Haroon, Quratulain Sareer
Institute: Department of Hematology, Armed Forces Institute of Pathology, Range Road, Rawalpindi

Aims: Our study aimed to investigate the burnout prevalence in pathology residents at a unique tertiary care diagnostic centre with the largest number of trainees in all subspecialties of the field in Pakistan.

Method: Study Design: This was a descriptive cross sectional study. Qualitative reliable and valid Likert scale was used to assess burn out syndrome. Setting: Armed Forces Institute of Pathology, Rawalpindi Sample size: Convenient purposive sampling was done in June 2019. Eighty one pathology post graduate residents belonging to all sub specialties were included. Inclusion Criteria: All post graduate pathology program residents currently enrolled for at least six months in the post graduate training were included. Exclusion Criteria: All residents who did not give informed consent to participate in the study.

Results: A total of 81 participants were included in the study after approval from Institutional review board (IRB) of Armed forces Institute of Pathology (AFIP). The participants belonged to pathology subspecialties namely virology, immunology, hematology, chemical pathology and microbiology. Maslach burnout inventory (MBI) questionnaire scale has been used for the assessment of resident's personal accomplishment, depersonalization and emotional exhaustion level related to residency training in pathology. Reliability of

questionnaire has been performed by applying Cronbach alpha reliability index and it is proved that it is reliable tool to check burn out scale in residents.

Conclusion: Medical residency is a stressful time. This study suggests a high prevalence of burn out among various subspecialties of pathology during the four years of residency with early years being most prone. Given the important personal and professional consequences, prevention strategies must be implemented in the residency program.

Title: Learning Style Preference of DPT Undergraduate Students

Author: Soyba Nazir, Nazeer Meharvi, Danish Hassan, Rehana Niazi

Institute: Rashid Latif medical college, Lahore

Aims: Learning styles indicate an individual's preferred way of learning or how the individual acquires information. While more recent research on learning styles of students in specific allied health fields has been performed. Purpose of the study was to determine the learning style preference of undergraduate physical therapy students.

Method: Non experimental cross-sectional study including students who had passed previous exam and excluding students who were not present on the day of data collection. Index of Learning style (ILS) had been used and data from different medical colleges (University of Lahore, King Edward Medical University, Rashid Latif Medical College) were gathered and learning style of DPT undergraduate students had been analyzed by using SPSS.

Results: On the active/reflective category the majority of students (54.1%) are activist and they had mild preference for reflective nature of learning. On the sensing/intuitive category the majority of students (64.1%) are sensing and they had mild preference for sensing

nature of learning while on the visual/verbal category the majority of students (77.6%) are visual and students are balanced on mild and moderate preference for visual nature of learning and on the sequential/global category the majority of students (54.6%) are sequential and they had mild preference for global nature of learning.

Conclusion: Students were more activist, visual, sensing and sequential. Knowledge of learning style will help to modify the environment of teaching to improve the maximum understanding of knowledge for the students.

Title: How a Journal Club Course Changed Learners' Approach in a Medical Doctorate Program- an Analysis of the PhD Scholars' Perspective

Author: Tania Shakoori

Institute: Center for Research in Molecular Medicine, University of Lahore

Aims: A structured journal club course that counts towards the final assessment was introduced in a medical doctorate program course at King Edward Medical University, Pakistan. This study aims to explore its effects on the learning approach of PhD scholars.

Method: A qualitative study comprising of a focus group discussion, involving eight out of the total of thirteen PhD scholars was conducted in 2017. Focus group discussions were transcribed verbatim and codes and themes were identified using grounded theory. The findings were triangulated with data from teaching feedback forms of the course from all the thirteen PhD scholars from 2015 to 2017.

Results: The participants described an overall positive effect of the course on their learning, including development of critical and scientific thinking. They also reported improvement in their clinical and teaching practice. They attributed these to the interactive nature of

the course, role playing as author while presenting the assigned paper in journal club, help from the study guide, interdisciplinary peer learning and the awareness that they were being graded on their performance.

Conclusion: A semester long structured journal club course that contributes to the final assessment may be an effective tool to teach medical doctorate students about the research process and critical appraisal skills.

Title: Comparison of learning styles among post graduate residents and full time specialty Clinicians pursuing higher educational degree

Author: Sahibzada Nasir Mansoor

Institute: Armed Forces Institute of Rehabilitation Medicine (AFIRM) Rawalpindi

Aims: To compare the different learning style preferences among full time specialty clinicians and post graduate residents.

Method: Participants were sampled by convenience. Informed consent was obtained. Participants were divided into two groups; post graduate residents and full time specialty clinicians currently enrolled in a higher education degree program. Self administered questionnaire including basic demographic data and Honey and Mumford learning style questionnaire was distributed. Data was analyzed using SPSS version 22.

Results: There were 70 participants, 40 residents and 30 consultants. Mean age for specialist was 46.53 and resident was 27.63. There were 45 males and 25 females. Average weekly study hours for consultants was 12.67 and for residents 11.13 ($p=0.741$). 96.7% consultants used internet while 75.7 % residents used it. Self study was utilized by 90% of consultants and 62.25($p=0.009$) of residents. All the consultants managed time by scheduling, time management, weekends, late nights, leaves, early mornings and peer

assisted. 72.5% of residents did not use any strategy for time($p=0.000$). Majority of both groups had more than one learning style (2-3). Learning style combination of consultant was Reflector theorist (56.7%), reflector pragmatist (16.7%), activist pragmatist (10%) and activist reflector (13.3%) while learning style combination of residents was activist theorist and activist reflector 22.5% each, reflector theorist 27.5% and reflector pragmatist 12.5% ($p=0.023$)

Conclusion: Consultants have a much better learning style and better time management strategies for improved learning.

Title: Innovation with Integration of different Disciplines through Electronic Poster

Author: Fozia Tahir, Sajida Naseem, Syeda Hanaa Fatima

Institute: Shifa University, Islamabad

Aims: Poster presentation is one of the recent modality with visual appeal and compact content to transfer knowledge. Electronic poster is new innovation in academic teaching. The primary objective was to assess the performance of students through electronic poster presentation among undergraduate medical students of year 3 while integrating the disciplines.

Method: In 2019, year 3 undergraduate medical students of Shifa College of Medicine were briefed about the template of an e-poster in GIT module. Students were divided into 7 small groups comprising of 13 each. One theme was assigned per group, from which one pathological condition was selected for presentation. The task was to discuss pathogenesis, treatment, preventive measures along with interventions aiming to decrease the burden of disease. Five Faculty members were invited to mark the e-posters according to the checklist carrying 10 marks. Mean score was calculated which was added to

the summative assessment.

Results: The themes include: Best among all learning modalities so far, can relate to real life health issues, enhanced cognitive skills, integration is healing oriented rather than disease focused, promotes combination of mind and body.

Conclusion: Students welcome e-poster as a mode of integrating different disciplines in the learning not only in this module but suggest applying more often for better comprehension.

Title: Post graduate Research Supervision: Knowledge and Practice among Supervisors

Author: Sajida Naseem, Tayyaba Faisal, Saima Rafi

Institute: Shifa College of Medicine, Islamabad

Aims: The primary goal of research supervision in the higher education sector is to build quality evidence. Effectiveness of this supervision can be enhanced if the knowledge management concept is effectively integrated into the process of training at postgraduate level.

Method: A cross-sectional study was conducted among supervisors of CPSP at the regional office Islamabad from Jan to March 2019. Informed consent was taken. A self-designed questionnaire was used to collect data after taking informed consent. Doctors who had minimum 5 years post fellowship experience were enrolled in the study. Participants took 10 minutes to fill the questionnaire. Data was analyzed using SPSS version 23. Descriptive statistics were calculated.

Results: Overall 100 participants completed the questionnaire. Among these 64 were females, 36 were males. Mean age was 37 0.7 years. Majority (60) of them were working in the government hospital. Most (72) of them had difficulty in writing the objectives of

research while 90 were incognizant about the sample size calculation. Mean number publications was 30.5. All (100) of them were interested in conducting and writing manuscript. Only 5 were able to write research manuscript on their own.

Conclusion: The importance of understanding of research in the present times is well understood, however its comprehension is lacking. Efforts need to be put in in order to train individuals at the supervisory role so as to improve the quality of research work, building evidence based medicine.

Title: Attribution to success and failure among Medical students experience

Author: Irfan Ali Mirza

Institute: Bahria University Medical and Dental College, Karachi

Aims: To find out the factors attributed to success and failure by medical students and how have they developed those attributes. Design: Mixed method sequential research. Place and duration of study: Bahria University Medical and Dental College Karachi from Mar to Sep 2016.

Method: In the first phase, quantitative research question addressed the different attributing factors for success and failure among medical students belonging from second to final year bachelor of medicine and bachelor of surgery (MBBS) course through survey questionnaire. A total of three hundred and thirty three students participated in survey. In the second phase, focus group discussions (FGD) and interviews were carried out from fifteen high and fifteen low achievers of different participant classes to probe in depth significant factors by exploring reasons for such attributions.

Results: The quantitative analysis of results revealed that significantly large percentage of students passing the professional examination

in annual examinations attributed their success to hard work, interest in the medical subjects, faith in their abilities, lectures and tutorials, module examinations and studying in small groups. The students passing in supplementary on the contrary were less hardworking and regular in their classes and faced financial issues. The major themes of attribution to success emerging from Focus group discussion (FGD) of high achievers were effective learning strategies, support from parents and family, confidence and communication skills and hard work.

Conclusion: High achieving medical students attributed their success primarily to internal, controllable and unstable factors like hard work and specific effort following effective learning strategies as well as external factor like support from parents and family. On the other hand low achieving medical students attributed their failures to internal controllable factors.

Title: Does reflection write effects the knowledge, attitude and skills of house officers?

Author: Ahmad Liaquat

Institute: University of Lahore

Aims: 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.

Method: This study was conducted in University college of Medicine and Dentistry, University of Lahore in June, 2018. Twenty house officers were included in this study. A questionnaire was filled by them as a pretest. They were asked to write reflection by Gibbs cycle in a word file and send it daily in WhatsApp group. Feedback was given to them.

After 10 days of daily reflection they were asked to fill the same questionnaire as posttest and the results were compared.

Results: There was a significant difference ($p < 0.05$) for each question. 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: Reflective writing is a powerful tool for metacognition. Critical reflection of the tasks enhances the knowledge of the doctors as they reflect.

Title: Undergraduate Student's Perception of their assessment method; A cross-sectional survey

Author: Aiza Yousaf, Hira Iqbal, Danish Hassan, Anam Ashraf

Institute: Riphah International University, Islamabad

Aims: Learning is driven by assessment for determining student learning outcomes and performance. There is currently no use of appropriate tool for reviewing the way, assessment influences learning on a specific course, that help students in enhancing their critical reasoning skills. This study aims to determine students' perception about their assessment.

Method: A cross sectional survey was conducted at Riphah International University Lahore by using non-Probability Convenience sampling technique. An Assessment Experience Questionnaire (AEQ) administered among 150 students enrolled in Physiology subject to determine the students' perception of assessment. Data was analyzed using SPSS version 21 and interpreted through descriptive statistics.

Results: A negative result was seen in all parameters of AEQ. Low scores emphasized

that students' study effort is allocated narrowly to assessed topics, assessment demands are perceived as unclear and that assignments are seen as unchallenging and as not requiring understanding.

Conclusion: The study concluded that students perceive the current assessment's result to be insufficient to support their learning, and too late to be useful. The assessment is neither comprehensible nor useful, it has little impact on subsequent studying/learning and perceived exam demands encouraged memorization and subsequent forgetting.

Title: Backwash effect of formative assessment on learning strategies of undergraduate dental students

Author: Fatima Iqbal

Institute: Riphah International University, Islamabad

Aims: Backwash effect is impact of examination on teaching and learning. It is negative and positive. Aim of my study is To evaluate the level of backwash among undergraduate dental students To explore the factors responsible for change in learning strategies To check which year shows more backwash.

Method: Mixed method (Sequential explanatory) First part Quantitative second Qualitative Sampling technique : Purposive sampling Sample size : all year dental students of Riphah international Inclusion criteria: All dental undergraduate students Exclusion criteria : Other fields Data collection: Semi structured Questionnaire (backwash questionnaire) Focus group discussions 2 groups (low backwash , high backwash) For qualitative Data Data Analysis : Spss 21 for Quantitative Data Atlas-ti for qualitative data

Results: All the years demonstrate some backwash effect with highest backwash in final

year and lowest backwash in first year. Backwash effect of formative assessment does change in learning strategies of undergraduate dental students. The positive backwash is observed in First year student and negative backwash is observed in final year students.

Conclusion: Backwash effect is even more important for students related to medical where they will have to apply their knowledge. Where health of patient depends upon their knowledge and understanding, so it is more important to evaluate their backwash effect.

Title: Developing the Core Learning Outcomes of Certificate Programs in Health Professions Education

Authors: Nabeela Naeem Rizwan, Mohamed M-Al-Eraki

Institute: Riphah International University, Islamabad

Aims: BACKGROUND: Certificate in Health Professions Education (CHPE) is a beneficial qualification for health care professionals. There should be judicious blend of individual as well as societal needs in content of curricula of these programs. AIMS: To agree upon learning outcomes of curriculum of CHPE programs developed for multiple health

Method: Delphi consensus study DURATION OF STUDY: 06 Months SETTINGS: Riphah International University, Islamabad, Foundation University Medical College, Rawalpindi, Khyber Medical University, Peshawar, Fatima Memorial Medical University, Lahore SAMPLING TECHNIQUE: Non-probability purposive/Expert sampling SAMPLE SIZE: 20 Medical educationists having experience of developing or working CHPE programs DATA COLLECTING TOOL: Online questionnaires DATA COLLECTION PROCEDURE: Online through SMARTSURVEY DATA ANALYSIS PROCEDURE: Thematic analysis of qualitative data. Measures of

central tendency (Mean), level of dispersion (Standard deviation) and percentages will be calculated after every round. Items with 80% or more consensuses will be included in the CHPE course learning outcomes.

Results: Twelve participants responded with their feedback on questionnaire 1. Out of 37 sub-themes, approval of participants was achieved on 30 items. While among remaining seven items that could not reach experts' agreement, two were associated with curriculum, Evaluation and leadership each and one was related to Assessment. In the second round a total of eight themes related to details of program management were identified which are "key qualities of students attending these programs", "criteria for application rejection", "Alarming signs of not being able to complete the program", "reasons for success of CHPE program", "How to measure success of programs", "Criteria for recruiting tutors", "professional identity formation among learners", "advice for establishment of new CHPE program". Majority of the experts were in favor of selecting candidates with teaching experience and induction of faculty who is qualified in medical education. They believed that progression of these programs can be achieved through appropriate planning prior to initiation of these programs.

Conclusion: The information related to logistics and the teaching strategies that should be used frequently in these programs was sought. The study has not only identified the topics thus providing a comprehensive content that can be envisaged in the curriculum of CHPE programs but also gives brief description of experts' opinions about other aspects of these programs. Research findings suggest that certificate programs in health professions education enhance students' perspectives about health

professionals' education and bring improvement in skills related to teaching, collaborative work, presentations and leadership. The different views gathered from the experts in medical education emphasized on few factors associated with CHPE programs that have been appreciated in this study were flexibility in content, collaborative learning, recruitment of professional tutors, comfortable environment and self-direction. All health care professionals should be encouraged for enrolment in these programs.

Title: Barrier faced by undergraduate medical students to become self-regulated learner

Authors: Aasma Qaiser

Institute: Riphah International University Islamabad

Aims: The main principle of self-regulated learning is that students who regulate their learning by awareness of metacognition, strategic action and motivation to learn are successful in their academic carrier. The aim of this study is to collect viewpoints of students about factors that affect their self-regulation in learning.

Method: this is qualitative, exploratory study design with focus group discussion. Mohi-Ud-Din Islamic Medical Collage Mirpur, Islamic International Medical Collage Rawalpindi (study site). Duration of study six months. Sample Size include total number of students 36 (18 from each collage). 6 students from each year will be participated in FGD (3 FGD from each collage). Purposive sampling using self-regulated learning perception scale (SRLPS). Students of 3rd year, 4th year and final year will fill the questionnaire. Students with low level of self-regulated learning will participate in Focus group discussion. Data analysis include audio recording, transcription, coding and thematic analysis using ATLAS Ti software.

Results: The major themes that were emerged

related to Curriculum, metacognitive strategies, issues with the infrastructure and institutional policies. Subthemes pertaining to curriculum were 1) lack of integration, 2) absence of student-centered approach, 3) poor enthusiasm in faculty of basic sciences, 4) poor constructive feedback on assessments. Subthemes for metacognitive strategies were, 1) poor internal motivation, 2) habit of rote learning, 3) selective study for passing examination, 4) lack of self-efficacy, 5) poor planning and time management, 6) personal issues. Subthemes pertaining to Infrastructure were 1) lack of internet facilities and 2) variety of patients in the hospital. Subthemes for institutional policies were 1) presence of monitoring cameras 2) enforcement of gender segregation in the college.

Conclusion: Self-regulated learning in a medical institute is highly context dependent. Some of the factors related to curriculum, metacognition and infrastructure were already known from the previous research on medical education. However, unexpected theme emerged because of Institutional policies encompassing cameras in campus and enforced gender segregation was very context specific. Cameras are probably deployed for security concerns, but student's perception were installed to watch them and control their behavior.

Title: Implementation of Islamic Medical Discipline (IDIK) for Students in Clinical Phase: Using Case Reflection in Small Group Learning

Author: Ida Royani, Shulhana Mokhtar, Nur Fadhilah Khalid, Syarifuddin Wahid, Nasrudin AM

Institute: Medical Faculty of Universitas Muslim Indonesia, Makassar, Indonesia

Aims: One of the learning objectives need to be achieved by clinical phase student in Islam Disciplines Medicine (IDIK) is the application of the concepts and values of Islam in the medical

profession. The process begins with the planting of the basic concepts of Islam and its application in the learning.

Method: This is a qualitative study that use reflection case study with interview and active learning on small group learning. The subject are students of Medical Faculty, Universities Muslim Indonesia at clinical phase that already finished clinical rotation in one department. Small group learning is conducted every week facilitated by an IDIK team lecturer as facilitator. The steps of the activity are as follows: Starting the atmosphere through Quranic "tadabbur", then students are asked by the facilitator to express their opinions, sharing experiences and feelings about what they have experienced and observed during their rotation clinic in the department.

Results: The study shows that the image of a Muslim doctor who is professional in the view of students is those who consistently maintain worship (prayer) and show the islamic adab in their activities in performing medical services, promoting honesty, being able to communicate effectively and showing empathy. The relevant cases related with ethical issue and professionalism in the view of Islam that are widely revealed are immunization, contraception, transfusion, handling terminal case patients, fraud diagnosis in case of national health insurance claim, and medical letters.

Conclusion: Student can formulate the concept of moslem doctor, correlate ethical and professionalism issues in Islamic value and obtain insight of their selves.

Title: Awareness of Dental Surgeons regarding management of psychotic patients attending Dental Teachings Hospitals of Karachi

Author: Talha M Siddiqui, Aisha Wali, Nasratullah, Abdul Wahid, Sajjad

Institute: Baqai Dental College, Karachi

Aims: The aim of the study is to assess Awareness of Dental Surgeons regarding management of psychotic patients attending Dental teachings Hospitals of Karachi

Method: Study type: Cross sectional, Study duration: 3 months, Sample size: The sample size was calculated by taking 50% prevalence rate and computed using Open Epi version 3.03a at 95% confidence interval and $\alpha = 5\%$. The sample size calculated was 350. Sampling technique: A convenience sampling technique was employed and General Dental Practitioners registered with Pakistan Medical and Dental Council working in various Dental teaching hospitals from different clusters of Karachi were included in the study. Data will be collected by using structured questionnaire which will include demographic profile, questions designed to assess the role of dentist in identifying psychotic patients, measures taken for management of psychotic patients, lack of communication between dental and medical practitioners. Data was analyzed for frequency and percentages. Chi square test was performed for cross tabulations of various associations by using IBM SPSS version 22.

Results: A total of 272 Dental surgeons from different dental teaching institutes participated in the study. 239(87.9%) of the dental surgeons reported that they treat dental patients with psychological problems. 216(79.4%) of the dental surgeons replied that dental diseases could be associated with or caused by psychological problems. 175(64.3%) of the dental surgeons replied that they provide basic treatment and also the psychological cause of disease. 212(77.9%) of the dental surgeons reported that they allocate extra time to the patients and listen them out.

Conclusion: The present study concluded that most of the dental surgeons provide dental treatment and give extra time to listen to their

psychological aspect but still many of them preferred referral to General physician or psychiatrist.

Title: Knowledge, attitude and perceived confidence in handling medical emergencies among dental practitioners in Karachi Pakistan

Author: Ain-ul Haq, Wasif Arsalan, Reham Naseer, Zoya Marium

Institute: Baqai Medical University

Aims: The aim of this study is to assess the knowledge, attitude and perception of general dentist to handle medical emergencies in their practice.

Method: In this Cross -sectional study a questionnaire was distributed to a sample of 384 dentist working in private and government dental hospitals in Karachi Pakistan. The data collected was analyzed for frequency and percentages by using SPSS version 22.

Results: Over 75.5 dentist have skills and knowledge to manage medical emergencies, were trained in (BLS) but only 52.1 dentist are confident to perform (BLS). Most of the dentist (74.5) responded they had emergency kit in their dental hospitals. More than 85 of the dentist are confident that they can identify and diagnose the patient at risk of developing medical emergency but only 56.8 were confident enough to manage and treat medical emergencies.

Conclusion: This study revealed that considerable number of dentists had knowledge and skills to manage medical emergencies, but only few are confident enough to manage and treat medical emergencies.

Title: Identification of threshold concepts in endodontics in undergraduate Dental education: A Modified Delphi study

Authors: Muhammad

Institute: Islamic International Dental College, Riphah International University

Aims: The aim of this study is to explore threshold concepts in dental curriculum of endodontics that are central to its understanding at undergraduate level. This, in turn will help us recommending the improvements in the undergraduate dental curriculum to the dental educators.

Method: Study Design: Modified Delphi study (Quantitative) SETTING: Research will be conducted in Islamic International Dental Hospital. DURATION OF STUDY: 6 months (April 1st to September 30th, 2019) SAMPLE SIZE: 15 endodontic teachers will be included in this study. SAMPLING TECHNIQUE: Purposeful sampling to include the individuals who are subject specialists. SAMPLE SELECTION: Inclusion criteria: Endodontic teachers with a minimum qualification of FCPS or MDS in operative dentistry. Exclusion criteria: Endodontic teachers who have less than 2 years undergraduate teaching experience. DATA COLLECTION PROCEDURE: After taking ethical review from ethical review board (ERB), modified delphi will be done.

Results. : In the first phase of Delphi, these seventeen endodontic concepts (17) out of seventy-two concepts (72) have been identified as threshold concepts (TCs) in endodontics in undergraduate dental education.

Tactile feedback, manual Dexterity, making an endodontic diagnosis, endodontic radiographic interpretation, achieving straight line access, management of a ledge, coronal flaring, recognizing the pulp chamber, knowledge of the confines of the root canal, tug back of a master apical GP cone, patency filing, recognizing pulpal status, establishment of appropriate working length, history taking of an endodontic patient, exploration for extra canals, procedural errors in endodontics and endo-perio lesions.

Conclusion: Seventeen endodontic concepts out of seventy-two concepts have been identified as threshold concepts (TCs) in endodontics in undergraduate dental education.

Title: The Challenges Faced by International Medical Students

Authors: Jamilah Riaz Janjua, Mohammed Al-Eraky

Institute: Riphah International University

Aims: There are a countless number of students undergoing undergraduate medical studies in Pakistan, who have completed their schooling overseas and have moved here for their studies. These students find themselves in an unfamiliar environment, struggling to adjust to problems such as isolation, loneliness, homesickness, accommodation and other issues.

Method: A qualitative study, using phenomenology to explore the lived experiences of international medical students. Data will be collected by conducting semi-structured interviews to the point of saturation. The interviews will be recorded and transcribed. It will then be categorised into emergent themes and codes.

Results: The majority of students had to deal with cultural shock in one form or another. A few of them recounted their surprise at the gender segregation seen in the daily interactions. One of the students felt there was a social stigma attached to talking to females. He felt that people here tend to be too disparaging. One of the students expressed his disappointment at finding the teachers to be different from how he'd found them back home. He felt that teachers here tend to be over critical and discouraging. And unnecessarily strict. While he was used to teachers being helpful and friendly. Another of the students related her experience of culture shock. A couple of the female students

expressed their unease in not knowing what dress was culturally acceptable. Most of the students felt they had some initial difficulties with language. The students felt that in the beginning they had language issues, especially the colloquial Urdu. A few of the students felt like they were being unnecessarily judged, or even being discriminated against. Just because people saw them as different, they put them to judgement and even tried to take advantage of them. Most of the students had to deal with feelings of isolation and loneliness. Mostly it was due to the cultural barriers that they struggled to find company or make friends.

Conclusion: The challenges which international students face are multifactorial, and which factors outweigh the others will vary from student to student as has been seen in the results of my study.

Title: Efficacy of Reflection as a Tool for Outcome Based Learning in Basic Medical Sciences

Authors: Uzma Musarrat, Abeerah Zainub, Rabia Hanif, Saddaf Ayyub, Fakhra Noureen, Saira Jahan

Institute: Islamic International Dental College, Islamabad

Aims: Guided reflection provides the ability to critically analyze an experience and learn through it. To test its efficacy in basic medical sciences we designed a randomized control trial to evaluate and assess the role of Guided Reflection for achievement of learning outcomes in basic medical sciences.

Method: A topic will be chosen to be delivered in lecture while the class of 75 will be randomly divided into two groups. One group will be explained the process of reflection before the lecture and at the end of lecture they will be given time to reflect upon it. While the other group will be given lecture on the same topic by the same teacher without any reflection

time. At the end of both sessions the groups learning will be assessed via a short test comprising MCQs on the same topic. results will be collected and analyzed through SPSS.

Results: Results after first session showed Mean of Group-1 "Reflectors" was found to be 23.9355 with standard deviation of 4.80233 and mean of group-2 was found to be 23.7742 with standard deviation of 3.80096. P value was 0.8 which revealed Non significant result. Results of session 2 revealed Mean of Group-1 "Reflectors" was found to be 20.1935 with standard deviation of 5.40629 and mean of group-2 was found to be 23.4516 with standard deviation of 4.44851. P value was .018 which revealed significance of result.

Conclusion: Reflective practices on teaching sessions at the end of lectures can be proved as an effective strategy to achieve the goal of outcome based learning.

Title: Standards for the Accreditation of Physical Therapy Education Program in Pakistan

Authors: Saira Waqqar

Institute: Riphah University, Islamabad

Aims: In Pakistan, currently no educational standards exist for accreditation of Physical Therapy educational program. Since, standards are required by Accreditation bodies to assess the compliance of program for recognition. The purpose of this study is to develop standards for accreditation of Doctor of Physical Therapy (DPT) education program in Pakistan.

Method: A two iterative round of online Delphi survey is in process since January 2019 with 60 Physical Therapy experts via email. The questionnaire will be developed on Should and Must basis. The purposive sampling technique is used to select the experts panel. The study is conducted with the experts from Institutes offering DPT program in Pakistan. Panel

members will be asked to rate their agreement with each proposal on a five-point scale. Consensus will be considered to be reached at $\geq 80\%$ agreement of the panel. Members will be provided with summative results and anonymised comments at the commencement of Rounds.

Results: Eight themes emerged as educational standards of accreditation i.e. Program Mission, curriculum philosophy, Research, Program Monitoring & Evaluation, Students, Student Assessment, Faculty and Patient safety. Finally, 52 standards statements under eight areas achieved panelist agreement greater than 80%. Content validity index of 52 item scales was 0.97 and universal agreement was 0.65 that indicate excellent content validity. Internal consistency of 52 items standards tool was 0.94 and internal consistency according to Cronbach's alpha of eight domains ranged from 0.63 to 0.90.

Conclusion: The Eight broad areas with 52 standards document is valid and reliable that can be used to measure any institutional quality of undergraduate level Physical Therapy education program.

Title: Exploring the journey of educational leaders as a change agent in bringing curricular reform in medical education in Pakistan

Authors: Sana Javed

Institute: Riphah International University

Aims: The aim of this study is to explore the process by which educational leaders successfully brought change in their workplace. The experiences of the hurdles and problems they faced and how they successfully managed to overcome all the barriers is the scope of this study

Method: Mixed method study phase 1 : MLQ Questionnaire Phase 2 : Interviews

Results: Awaited

Title: Evaluation of self-awareness of teaching skills of medical teachers: Development and Validation of "SATS"

Authors: Seema Gul

Institute: Riphah International University Al-Mizan campus Rawalpindi

Aims: Self-awareness is insight into one's own thought and emotional processes and their effect on others. Self-aware teachers will produce doctors who are life long and self-directed learners. The purpose of this study is to develop and validate a tool for evaluation of self-awareness of teaching skills "SATS" of medical teachers.

Method: Study was conducted in Riphah International University Rawalpindi. It is a mixed method study design. Data was collected from twenty medical educationists and fifty medical teachers through non probability purposive sampling technique. Following four stage process was used for developing and validating questionnaire. Stage 1 was reviewed of literature and focus group discussion to develop preliminary questionnaire items. Stage 2 was modified Delphi technique for consensus development and expert validation. Stage 3 was cognitive interviews to check for faculty understanding. Stage 4 was pilot testing to establish reliability of the tool.

Results: Phase 1 (Step 1-4) Items and domains were established during phase 1. For self-reflection 8 items, communication with students 8 items, student's feedback 6 items and for peers' review 4 items were extracted. Researcher evaluated items in each domain and any repeated or similar items were combined, excluded or replaced based on suggestions. Finally a closed ended survey of 26-items using the response options on five point Likert scale (5=always, 4=often, 3=sometimes, 2=rarely, 1=never) was developed and entered to phase 2.

Phase 2 (Step 5 & 6) Results of content validity analysis. In round one of modified Delphi technique, the values of scale content validity index/ average (S-CVI/Ave) was calculated to be 0.92 and scale content validity index/ universal agreement (S-CVI/UA) was 0.61. Based on experts' qualitative feedback, 1 item was added. Items having I-CVI ≤ 0.78 were removed (5 items), I-CVI from 0.78 - 0.90 were revised (8 items) and 13 item with I-CVI ≥ 0.90 were included. Delphi studies use certain level of agreement and descriptive statistics to quantify consensus amongst an expert panel. Median score of ≥ 4 and percentage agreement of $\geq 80\%$ was taken to build consensus among expert panel for modified Delphi technique. Phase 3 (Step 7) Results of Factor Analysis. Factor analysis was done to determine construct validity of the instrument. Phase 4 (Step 8) Standard setting of the scale. Examinee centered, contrasting group method of standard setting was used to establish cut scores for the levels of self-awareness of teaching skills of medical teachers.

Conclusion: Based on data obtained from medical teachers, self-awareness of teaching skills was calculated to be excellent in 35%, good in 44%, average 18% and poor in 3% of the participants.

Title: Comparison of the Educational environment at a Medical College under two different Universities: Student perceptions of the paradigm shift

Authors: Ayesha Younas

Institute: Wah Medical College

Aims: The DREEM is a standard tool which has been used internationally to evaluate educational environment at medical schools. The study aims to compare if a change of the degree awarding university (UHS to NUMS) has brought about a change in students perceptions of the educational environment at Wah Medical College.

Method: This is a longitudinal study conducted from 2015 to 2019 and compares data collected from students of 1st yr to 3rd year MBBS utilizing the DREEM questionnaire. the study utilizes data collected from the students in 2015 from the study (Mushtaq et al., n.d.) when the college was affiliated with University of Health Sciences, Lahore and compares it with the data for students in the same three years in 2019 with the college currently affiliated with National university of Medical Sciences. Sample size was calculated to be 175 and data was collected after random sampling. data analysis is under process.

Results: In 2015, the overall DREEM score was 122.63/200 (61.3%), indicating that the perception of the learning environment was more positive. Among the highest scoring categories were students' participation in classes, relaxed atmosphere and confidence in passing the annual exams. In 2019, the overall DREEM score slightly declined 120.40/200 (60.2%), and although the learning environment at the college is positive, four out of five DREEM domains showed a statistically significant difference in student perceptions about the learning environment.

Conclusion: Perception of the learning environment was more positive.

Title: SLICE effectiveness as a formative assessment tool in Clinical Clerkship; Medical Student's perspective

Authors: Wajiha Shadab

Institute: Riphah International University IIMCT Pakistan Railway Hospital

Aims: The SLICE was developed at Riphah International University's medical college to replace long viva. This study will explore the students' perceptions regarding SLICE as assessment tool. This would help identify acceptance of this tool for formative assessment and challenges related to their incorporation in the medical curriculum.

Method: STUDY DESIGN: The proposed study is an exploratory, qualitative study. Setting: Study will be conducted at Islamic International Medical College's affiliated Railway teaching hospital. Data will be collected through focus group discussion (FGD). The FGD would be conducted and recorded after two weeks of commencement of clerkship rotation of final year students in the department of surgery, medicine, OB/GYN and paediatrics. Duration of Study: Six months. The FGD would be conducted after 2 weeks of the commencement of clerkship rotations. Sample Size: Four focus groups will be made each having 8 members. Sampling Technique: Non-probability, purposive sampling would be employed.

Results: Each of the FGD was started with the facilitator introducing herself and describing the purpose of the study. Then the facilitator asked a series of questions related to the students' opinion and views regarding the purpose, learning and fairness of SLICE as a formative assessment tool. If any point needed any further explanation, the facilitator asked more questions to probe the topic. After the discussion reached a saturation point, the facilitator moved the discussion to the next question. The FGD varied between a total of 22 to 29 minutes' duration. The themes at the end of the third cycle were again re-analyzed. Many of the themes were re-assessed as being subthemes of other themes.

Conclusion: SLICE as a formative assessment tool: Fair, Effective, Has an effective feedback component, Supplements students' learning.

Title: Understanding Impact of inter-professional Collaboration on quality of Patient care: A case study from a resource limited Secondary healthcare setup of South Punjab

Authors: Muhammad Naveed Akhter Rana

Institute: Khyber Medical University Peshawar

Aims: No single profession can meet all the patient's needs. Poor collaboration between health care professionals (HCP) harms patient care. The aim of this study is to explore the perceptions of HCPs about IPC and its effect on patient care

Method: Qualitative data is collected through the recording of semi-structured interviews of HCP's selected through purposive sampling. data will be transcribed verbatim and will be analyzed for thematic analysis

Title: Comparison of teaching by conventional method and by using cognitive load theory of multimedia to post graduate FCPS students, a comparative study

Authors: Misbah Durrani, Inam ul Haq

Institute: BBH Rawalpindi

Aims: In my department physics is being taught to PG FCPS students by didactic lecture. students, in general consider it a difficult subject and that reflect in their performance. By incorporating cognitive load theory of multimedia, I assume that learning will be improved and students will perform better.

Method: Two groups of PG FCPS students of first and second year comprising ten students each will be formed. two groups will have similar attributes. Pretest will be taken and one group will be taught through didactic lecture and post test will be taken. Second group will be taught by the use of cognitive load theory. pretest will be taken as before and after the learning session post test will be taken. Results of both groups will be compared. swap over will be done, group which was taught through didactic lecture will be taught through other method. Results will be compared.

Title: Nurturing Grit Among Medical Students

Authors: Tayyeba Iftikhar Mirza

Institute: Islamic International Medical

College, Riphah International University

Aims: Grit is defined as “the ability to effort fully persist in the face of struggle”. In simple words grit is the passion and determination toward achieving long-term goals. To identify the first year medical students' level of GRIT and its effects on student's performance. To explore the strategies

Method: After IRB approval and consent from the students, Pilot testing on 15-20 students will be done, in order to test for feasibility, cost, time, and adverse events and to improve on study design. A 12 item grit scale will be used to measure Grit. In grit scale 5 items each, are used to determine the consistency of interest and perseverance of effort. The items will be measured by 5 point likert scale with 1 representing “not like me at all” and 5 representing “very much like me”. The students with low grit score will be taught different strategies Re assessed for improvement in grit level. The students with high grit level will have focus group discussion, to know what strategies they are using to cope with failures.

Results: Out of 133 students, 23(17%) students had a high level of Grit, 100(75%) were with a moderate level of Grit, while 10(7.5%) had a low level. Female students dominated in the high level of Grit; the reason might be the higher strength (2/3 rd of class) of female students than males (1/3 rd of class). Semi-

structured interviews were conducted with high Grit students to identify the learning strategies used by them. Interview data were transcribed, and a thematic analysis was done. A total of eight themes were identified. Among the learning strategies, of utmost importance was self-regulation and self-awareness, which helps them to identify their strengths and weaknesses, and guides them towards growth. Sustained effort and intrinsic motivation lead them better academic performers. A Wilcoxon signed-rank test showed that three months course (RESET GOALS), did elicit a statistically significant change in Grit score ($Z = -2.8$, $p = 0.005$). Indeed the median score after the intervention was greater than the median score before the intervention. The effect size calculated was (-0.6), which signifies that the second mean was greater than the first mean.

Conclusion: There is a difference in the level of Grit among medical students. Sustained effort and intrinsic motivation are the secrets behind the success of Gritty students. The learning strategies with the name “RESET GOALS” are effective in enhancing Grit in students having a low level of Grit. It's the duty of a teacher to create such an environment and device strategies which will help students maintain their interest and engage in the tasks. The learning environment has a strong impact on students' mindset, and in turn on behavior and academic performance.



POSTER PRESENTATIONS

Title: Determine the health care requirements of small towns for moving toward accountable educational system

Author: Ghadir Pourbairamian, Ghobad Ramazani, Marayam Aalaa, Eshagh Moradi, Azam Norouzi

Institute: Medical Education Group, School of Medicine, Iran University of Medical Sciences

Aims: This study aims to determine the main needs of society in the field of health care from the point of view of general practitioners based in the outpatient centers in which the first information was provided in this field.

Method: This study was conducted using qualitative (structural phenomenology) and semi-structured interviews with 19 general practitioners in three small towns. Sampling was done purposefully and until data saturation was achieved. After recording and implementing the interviews accurately, the text of the interviews was analyzed using a content analysis method using a conventional approach. Finally, 279 Primary code, 43 sub-categories and 7 main themes were extracted.

Results: The themes of interviews in 7 main categories were the most frequent, as follows: increased non-communicable diseases (including cardiovascular diseases, cancers, and diabetes), More attention needs to be paid on prevention (consist of public education), changes in the patterns of nutrition (such as increasing consumption of high-calorie foods, less consumption of dairy products and seafood), increasing mental and psychological illnesses (like the prevalence of depression), reducing household purchasing power, changing lifestyles (such as Increased mobility), and increased maladaptive behaviors (likes drug addiction and hookahs).

Conclusion: Findings of the review and

revision of the curriculum related to the teaching of general medical students and other disciplines should be necessary and the topics such as non-communicable diseases and prevention of health would be considered in Curriculum and curriculum planning, as well as policies adopted by policy makers.

Title: Student Engagement and Leadership roles inside medical college: The Students' Perspective

Authors: Saadia Sultana , Muhammad Nadim Akbar Khan

Institute: Riphah International University . Islamabad

Aims: Student engagement ensues when students enthusiastically put forth their efforts, exertions and commitment to the learning environment. When they invest their energies both within and outside the classroom. They care about their peers' successes around them. They contribute eloquently to the school climate and feel themselves important for the system

Method: From January to October 2017, 38 students who aided different management roles in various College organizations/committees were enquired through open-ended questionnaire about their experience. Qualitative analysis of the students' responses was autonomously carried out by two researchers; who had compared their coding for agreement. Themes were identified through content analysis. Our study was designed to make out the perceptions of students who were enthusiastically engaged in the opportunity/full authority designated to them in the form of student engagement.

Results: For students the motivations that emerged for getting involved were: enthusiasm of being part; ratifying the necessity for the program; alliance with brilliant peers and talented faculty, desire to

return-back to the system; obligation to institutional excellence etc. Benefits perceived by the students were: gaining knowledge of innovative skills and attitudes; recognition by peers and seniors, better linking with medical fraternity; learning behaviorism and attitudes of a leader and being educated about mentoring etc. The most commonly acknowledged drawbacks were: the time management, balance between different commitments specially between academics and extracurricular, peer and teacher pressures and maintaining the position.

Conclusion: Students are now more drawn towards different leadership roles by engaging themselves in variety of activities. This data is an example of satisfying and positive perception of students about their involvement and it may be helpful to other medical colleges who are hoping to involve their learners as leaders.

Title: The effectiveness of deep breathing exercises and incentive spirometry on arterial blood gases of inhalation burn patients

Author: Summyia Siddique Malik

Institute: Foundation University Institute of Rehabilitation Sciences, FUI

Aims: It is a randomized control trial with sample size of 30 collected from Burn Centre of PIMS hospital Islamabad. The aim of the study is to find out the effectiveness of the Deep Breathing Exercises and Incentive Spirometry on arterial blood gases in second degree inhalation burn patients.

Method: The data was collected on self-structured Questionnaire, RDS and objective tools of ABG'S and vitals signs with signed consent. The subjects selected were randomly allocated in experimental and control groups. The baseline data was collected on Day 0 of the treatment session and then after 14 sessions (Day 7) data was re-collected. It was

assessed by using non probability convenient sampling technique. Both groups were given standard medical and nursing care. The experimental group was given single treatment regimen i.e. Deep breathing exercises (with 5-10 repetitions of each DBE being possible onto patient for 15-30 minutes twice daily). The members of control group were given 10-15

Results: The overall results for Experimental group was significant for pH and pO₂ with $p < 0.05$. Control group was showing significant results for pCO₂ factor of blood gases with $p < 0.05$. Hence deep breathing exercises and incentive spirometer both are effective but deep breathing exercises along with standard medical care is significantly effective in preventing pulmonary complications in second degree inhalation Burn patients.

Conclusion: The current research was to check the effectiveness of deep breathing exercises and incentive spirometry on Arterial blood gases in second degree inhalation burn patients opens gateway for new researchers. The experimental group results were significantly improving pulmonary complications i.e. Deep breathing exercises are significantly effective in improving post burn complications

Title: Anxiety among Nursing Students Regarding Clinical Experiences

Authors: Noorul Haq, Sajid Iqbal

Institute: Rehman Medical Institute Peshawar

Aims: The aim of the study was to identify the level of anxiety among nursing students regarding clinical practice, experience and learning at a private teaching organization at Peshawar, KP

Method: A Cross sectional quantitative study approach was used. The study population included students of Bachelor of Science in Nursing (BSN) and License Practical Nursing

(LPN) of private sectors nursing institution in Peshawar, Pakistan. Only Semester-I, BSN and post RN students was excluded. Random sampling technique was used for data collection. Self-adopted, structured, and validated questionnaire was distributed among sample of 53 nursing students. Data were analyzed by using SPSS version 22. For data analysis in descriptive statistic, percentages and frequencies were calculated for nominal and ordinal data, while in inferential statistics, chi-square Test was applied for continuous variables.

Results: Results are given in the form of descriptive, and inferential statistics. It is very alarming to note that for students, practical or psychomotor aspect of learning is far difficult than just attending class rooms' session. Current study identified that, due to clinical training and practices, 11.3% students had sever anxiety. The male students were mostly affected.

Conclusion: This study signifies that further study should be conducted to elaborate the causes of anxiety related to clinical practices. There is an immense need for ongoing follow-up of students' psychosocial health and development of effective coping abilities in them. Students must be taught effective stress coping strategies.

Title: Prevalence of Calcium Deficiency Among Students Enrolled In A Private Sector University In Islamabad; A Cross Sectional Study

Authors: A Momin, I Arif, A Fauz, Amama, N Fiaz, S Arooj, I Majeed, S Khan, F Amjad, N Shah, A Irfan, S Uzma, A Jabbar, T Khan, I Aslam, S Zafar, A Masood, H Idrees, M Ali, S Ejaz, T Chaudhary, I Huma, A Aqeel, R Noor, M Shafi, Q Shah, T Sultana

Institute: The University of Lahore, Islamabad Campus

Aims Background: The National Nutrition Survey of Pakistan conducted in the year 2011 has shown that Calcium deficiency is on a rise in Pakistan.

Method: The present study was carried out at the Department of Diet and Nutritional Sciences, The University of Lahore, Islamabad Campus. It was a cross sectional study, which involved 104 students, enrolled at the aforementioned department of the University. All the willing students were included in the study while those with chronic diseases were excluded. The nutritional status of the study participants was determined using Body Mass Index. Twenty four dietary recall of the students was taken which was used to calculate daily Calcium intake using food composition tables.

Results: According to the results, out of n = 104 subjects, only n = 4 were taking Calcium as per their RDAs, while n = 11 were taking more calcium compared to their respective RDAs. Shockingly, n = 89 subjects were taking less than the recommended daily intake of Calcium.

Conclusion: This study revealed that only 3.8% students enrolled at the Department of Diet and Nutritional Sciences, The University of Lahore, Islamabad Campus were having a daily calcium intake as per their respective RDAs.

Title: The effectiveness of applying for formative Assessment Objective Structured Clinical Examination (OSCE) for Undergraduate students in Faculty of Medicine

Authors: Rajaa Allhiani, Sumaiah Abdulwahab
Institute: University of Jeddah, Saudia Arabia

Aims: The aim of this study is to measure the effectiveness of formative OSCE for undergraduate 5th year medical students in clinical skills module and also to meaures the effectiveness of self directed study SDL

Method: Check list of 10 questions survey was developed and distributed to the students who had volunteered to participate in the formative OSCE to measure their competency and proficiency. The formative OSCE was conducted before the summative OSCE at the end of the clinical skills module. This method was applied in 2014 and residents were retained as examiners. In 2015 & 2016 there was drop in participation since Formative OSCE was not compulsory. In 2018 this method was amended and accepted more challenges in inviting house officers (interns) to become as examiners since they were utilized as standardized patients and retained inactive stations.

Results: The analysis was done thru cross tabulation by NCSS similar to SPSS. In 2014, 208 students who had participated in the formative OSCE had reported there is not enough time since the designated time was 5 minutes and was supposed to be 10 minutes instead. Also had experienced difficulties with the residents as examiners since they were not trained to provide feedback. In 2015 & 2016 there was drop in students participation in the formative OSCE since it is not compulsory. In 2018 we have accepted more challenges and invited house officers (interns) as examiners and since they were SP

Conclusion: Overall the 5th year medical students were in favor of the formative OSCE since it has assisted in learning and to overcome their weakness. Faculty had diversity decision of the formative OSCE had reported time consuming and budget consumption. On the other hand students were satisfaction of this form of assessment

Title: Comparing the assessment quality of trained versus untrained peer examiners in Obstetrics /Gynecology OSCE

Authors: Fareesa Waqar, Wajiha Shadab

Institute: Riphah International University
IIMCT Pakistan Railway Hospital Rawalpindi

Aims: Literature lacks evidence regarding the requirement of formally training peer examiners and whether the provision of training improves the accuracy of the global markings scores. The aim was to find out if there is difference in the consensus of untrained /trained peer examiners with teaching faculty scores in Obs /Gyn

Method: Final year MBBS students were chosen at random to assess fourth year students at 4 OSCE stations Using checklist and global rating. The OSCE stations were marked simultaneously by faculty examiner, an untrained final year student acting as a peer examiner and a second final year student acting as a peer examiner but who has attended a formal two hours training session in which they were briefed about their role, shown OSCE stations, trained on the marking criteria, the use of the checklist and the marking system. The inter rater agreement was calculated by kappa values and paired t- tests

Results : The study demonstrated that training has a statistically significant effect on the accuracy of marking. Student examiners found peer assessment a useful learning activity. It provided them with insight into exam technique and opportunity to review their own knowledge and clinical skills, and is a useful way to revise knowledge in an active learning environment. Peer markers who underwent the formal training session demonstrated the capacity to assess fourth year students with acceptable consistency and reliability. Hence training helped to improve peer marker consensus with faculty.

Conclusion: The results of the study showed that appropriately trained students can reliably assess their peers clinical and communication skills in an OSCE. Students need to be trained in how to globally assess

their peers overall performance objectively and to provide accurate feedback. Provision of more intense training improves the accuracy.

Title: Is behaviourism really dead? A scoping review to document the presence of Behaviourism in current medical education

Authors: Ambreen Ansar

Institute: Riphah international university

Aims: The purpose of this review is to find the literature available on Behaviourist Theories using scoping review methodology to prove the existence of BA as a live and practical approach towards T&L and see what modifications have been made in original theories of Behaviourism, to address today's learners' needs.

Method: The five step approach of Arksey and O'Malley was followed in this scoping review. After identifying the research Question, the first step, three data bases were searched using the chosen Key words. The Question was revised and edited in the light of literature searched and those articles were selected which had discussion on basics of Behaviourism, critique on it, differences between types of Behaviourism clearly given and/or its implications in education. Search generated 38 articles from ERIC (5 selected), 14 in Pubmed (2 selected) & 15700 (15 selected) in Google scholar. Data was charted, collated & summarised in microsoft excel.

Results: Five publications appeared in literature before 2000, 5 were printed between year 2000-2010 and 12 were published between the years 2011-2018. The publications originated largely from USA i.e. 12 (57.1%). Of 21 Publications, 16 (76.2%) were original articles. There were two main themes; Overview & Critique of Behaviourist theories & Implications in medical education and five sub-themes; Motivation, Feedback, learning objectives, instructional design and reinforcement theory.

Conclusion: The Behaviourist approach despite stumbling upon a lot of critique remained persistent in addressing the needs of today's learner with its basic constructs along with some modifications. The paradigm may be called extinct or abandoned in theory but for all practical purposes it remains alive to provide meaningful learning experience.

Title: Coping strategies to combat procrastination in undergraduate medical students

Authors: Manya Tahir

Institute: Riphah International University

Aims: Procrastination is an act or a habit of putting off or delaying especially something that requires immediate attention. Procrastinators fail in accomplishing self regulation. **AIMS:** To identify the level of procrastination in undergraduate medical students? To explore the coping strategies used by low procrastinators to combat procrastination?

Method: Mixed method study **Duration:** 6 months **Site:** Riphah International University. **Sample Size:** 300 students. 6 to 12 students for FGDs (total 3) **Sampling Technique:** Purposive sampling **Sample selection:** (inclusion criteria): students of first second and third year MBBS. (Exclusion criteria): students of 4th and final year MBBS. **Data Collection Instrument:** Filling of Academic Procrastination Scale Questionnaire, Focus Group Discussions. **Data Analysis:** SPSS version 21 for quantitative data and Thematic analysis using Atlas Ti for qualitative data **Control of Bias:** Confidentiality of students will be maintained strictly. **Budgeting:** Own resources will be used and no external funding will be used.

Results: Results showed that out of 100 questionnaires administered to each class comprising of 100 students, only 85 students (85%) from each class (1st, 2nd, 3rd year)

responded. 48% students (52% first year+55% second year+36% third year) were found to be low procrastinators (in negative questions) and 37% students (36% first year+38% second year+35% third year) were found to be low procrastinators (in positive questions), whereas 23.33% students (27% first year+15% second year+28% third year) were found to be medium procrastinators (in negative questions) and 28% students (33% first year+21% second year+29% third year) were found to be medium procrastinators (in positive questions) and lastly 28.33% students (21% first year+29% second year+35% third year) were labelled as high procrastinators respectively (in negative questions) and 35.66% (31% first year+41% second year+35% third year) students were labelled as high procrastinators (in positive questions). On analysing the data obtained from interviews, ten themes were identified as strategies which the low procrastinators used to combat procrastination which are time management, self-regulation, establishment of priorities, self-reward, goal setting, conducive learning environment, self-reminders, task management, self-evaluation and self-monitoring.

Conclusion: Procrastination is a behavioural misconduct and is prevalent in undergraduate medical students, but it can be effectively treated by practicing the identified coping strategies which are time management, self-regulation, and establishment of priorities, self-reward, goal setting, conducive learning environment, self-reminders, task management, self-evaluation and self-monitoring. Medical teachers can help their students in developing these effective coping strategies mostly which are metacognitive to achieve better grades.

Title: Developmental assignments shaping experience-driven acquisition of leadership competencies in clinicians

Authors: Mashaal Sabqat, Rehan Ahmed Khan
Institute: Riphah International University, Rawalpindi

Aims: Despite being a core competency for clinicians, leadership development is not addressed in undergraduate and post-graduate levels. This study aims to identify the job assignments and their characteristics that can make an everyday job task developmental. This can allow structuring of job tasks for leadership development in young doctors.

Method: Semi-structured in-depth interviews will be taken.

Results: awaited

Title: Perceptions of fourth year medical Students regarding Temporal Integration

Authors: Rameen Shahid, Sumera Ehsan
Institute: Faisalabad Medical University

Aims: Rapid innovations in medical science have necessitated the development of an advanced medical curriculum. Taking a step towards this, a temporal integrated system and clinic-pathological conferences themes were introduced in a public sector medical university for fourth year MBBS. This study aims to assess students' perceptions regarding the change.

Method: Ethical approval was taken from institutional ethical review committee. After the completion of two terms, a 17 item pre-validated questionnaire was distributed among all students present in ophthalmology class on that day. Permission was taken from lecturer. A five point Likert scale was used to assess their responses. Out of the 270 questionnaires distributed, 265 were returned back. Data was analyzed using SPSS.

Results: 174 females and 81 males participated in the survey. The mean score of temporal integrated teaching, CPC and

assessment weeks were 3.22, 2.85 and 1.90 respectively. Two third students felt it was easier grasp a topic when it is taught simultaneously in different subjects. 40.2 % of the respondents felt that temporal integration was better than the traditional method of teaching while 20.3% were neutral and 36.5% did not prefer it. 15 percent students stated that the system was beneficial but they found it difficult to adapt to change.

Conclusion: A small step was taken to make improvements in a 46 year old traditional method. In this first phase, students are adapting to this change as their overall response was between neutral to positive. A second phase should be run after the completion of academic year.

Title: What is the role of connectivism in medical education?

Authors: Shahmain Shahzad, Rahila Yasmeen

Institute: Riphah International University, Islamabad

Aims: Connectivism is a relatively new learning theory which incorporates learning through a vast pool of information online, which is ever growing. This study aims to provide a review of the application, advantages and challenges of connectivism in health education.

Method: Thirty articles were selected in order to gain enough data for this research. These articles were then carefully read and analyzed by the author who then extracted relevant information from each article to include into the research. Articles dated before the year 2000 were excluded and those after it were included in the research. Articles written in English were included in the research.

Results : It was observed that the theory has numerous advantages cited throughout the review articles, which included the development of an ability to be more analytical

and critical while learning, taking responsibility for one's own education and the ability to add to the growing sources of information online. While a lot of the articles supported the use of this theory as a viable learning model in educational institutes in order to promote higher order thinking and self learning, a few articles revealed that it is not a valid learning theory on its own and must not be considered as such.

Conclusion: The use of connectivism in educational institutes promotes collaborative learning and problem solving. It enables students to be more proactive in their education by choosing what and how they want to learn. Using connectivism to augment already existing models in place will allow for more efficient learning.

Title: Effect of BMI and body fat ratio on summative assessment of medical students

Authors: Arham Javed, Afroze Liaquat, Abida Shaheen, Fahad Azam

Institute: Shifa College Of Medicine

Aims: Body mass index (BMI) is associated with physical and psychological health. Academic performance of students is believed to be a function of memory and cognitive skills but obesity may affect cognitive and academic performance. Given these reasons, we evaluated the effect of BMI on academic performance of medical students

Method: BMI and body fat ratio using bio electric impedance device was recorded for eighty students of Year 2 medical students at Shifa College of Medicine during Nutrition and Metabolism module. At the end of the module summative scores of the students were compared with BMI and body fat ratio

Results: Twenty two students scored more than 75% marks in modular summative assessment whereas fifty eight students scored less than 75% marks. Mean BMI of

students scoring less than 75% marks was 24.20 ± 4.49 which was significantly higher than BMI of those students (21.58 ± 4.06) who scored less than 75% ($p = 0.19$). Mean body fat ratio of students scoring less than 75% marks was 23.44 ± 7.73 and was significantly higher than mean body fat ratio of students scoring more than 75% marks. ($p = 0.035$)

Conclusion: BMI and body fat ratio affect academic performance of medical students. Awareness about this issue, counseling, emphasis on health in medical curriculum and promotion of physical activities should be encouraged. These studies can be conducted on a large scale in different age groups to explore the generalizability of present findings

Title: How students learn in medical by MOOC? a scoping review

Authors: Rafia Minhas

Institute: Riphah International University

Aims: MOOC has gained immense popularity in the recent years and its utilization in medical education is addressing the challenges met by the learners of this century. The generation Y students at the medical colleges of today are well-versed with the internet and MOOC has opened a new dimension for them.

Method: This scoping review is supported by the framework of Arksey and O'Malley that has following steps: Identifying the initial research questions Identifying relevant studies Study selection Charting the data Gathering, summarizing and reporting the results. The search engines used were: ERIC PubMed Google Scholar Psych Info Exclusion inclusion criteria was made on the basis of TIME PERIOD: 2014-2019 LANGUAGE: English, LITERATURE FOCUS: only medical education articles, with no ethical issues and non-funded were selected. Prisma formation was done with initially 1440 articles being identified and finally 11 articles were reviewed.

Results: The results indicate that MOOC complements the teaching in the classroom Students attitude shifts from passive learner to active learner who is self-directed There is increased teaching effectiveness and efficiency Innovations and reforms in teaching have been incorporated due to MOOC MOOC supports the revision of content and its consolidation by the student Students do not want MOOC to replace campus based teaching experience Integration of virtual patients with MOOC builds clinical reasoning of students The flexibility of time and space provided by MOOC enables the students to achieve the learning objectives

Conclusion: MOOC has great potential in the world of today and medical education can immensely benefit from it. However, there are various issues that need to be addressed in order to make it reach its full potential. The dearth of trainers in medical field can be compensated by MOOC.

Title: Identification of Entrustable Professional Activities for undergraduate endodontics

Authors: Alia Ahmed

Institute: Islamic International Dental College, Riphah International University

Aims: Entrustable Professional activities are groups of competencies which are necessary to perform certain professional activities in the clinical area. They can be used for feedback and assessment in the clinical area. The aim of this study is to identify the EPAs for undergraduate clinical endodontics.

Method: The study design was qualitative, Delphi method. The study was carried out at the Islamic International Dental College. Participants were chosen by purposive sampling and the criteria was teaching faculty with major postgraduate degree and at least three years' teaching experience. In the first

Phase, EPAs were drafted in the form of a questionnaire according to the literature review, subject content and clinical procedures encountered by undergraduate students. These were e-mailed to 15 experts who gave their initial input. Consensus items were identified by mean of 3.5 or more and standard deviation of less than 1. This was repeated twice.

Results: awaited

Title: Flipped class with online dose calculation: Health sciences student's achievements and satisfaction in Clinical pharmacology module

Authors: Nusrat Bano

Institute: King Saud Bin Abdulaziz University for Health Sciences

Aims: Flipped Class (FC) is an inclusive and engaging student centered pedagogical approach which can be optimized further by innovative techniques to improve student's learning and satisfaction. This study was designed to assess student's achievements and satisfaction associated with Flipped class learning with online dose calculation for narrow therapeutic index drugs.

Method: The study had a pretest-posttest nonequivalent control group quasi-experimental design. Students (n=270) were divided in control (didactic lectures) and experimental group (FC) with same instructor and similar learning outcomes regarding 20 narrow therapeutic index drugs. Pre class learning assignment (downloadable handouts and video tutorials) for experimental group were uploaded on Black board system ©1997-2016 Inc. Face to face class activity comprised of case study solving application exercise employing online therapeutic drug monitoring (TDM) dose calculator for narrow therapeutic index drugs (TDM Calculator APK 1.1). Comparative test performance (15 MCQ) and

Student satisfaction (8 survey items) were statistically assessed and evaluated.

Results: The difference in test performance of students across the two groups in test items based on core cognitive concepts of TDM was highly significant in application ($p<0.013$), analyzing ($p<0.024$) as well as evaluating ($p<0.032$) domains in favor of the experimental group. Student's satisfaction scores in 'class organization' ($p<0.01$) and 'enhancement of learning experience' ($p<0.05$) was significantly different across the two groups, satisfaction item mean value (satisfaction survey-5-point Likert scale) was greater for experimental group. Student's satisfaction scores in 'amount of required effort/work' was also significantly different ($p<0.05$), mean value was lower for experimental group (3.23 compared to 3.98).

Title: A cross-sectional study of the satisfaction level of students and house officers with the learning environment of a private dental college in Islamabad using the European Dental Clinical Learning Environment Instrument (DECLEI)

Author: Salman Ahmad

Institute: Islamic International Dental College, Islamabad

Aims: International standards require all health care professional institutes to provide a humanistic culture and learning environment for its students, faculty, staff and patients, and to periodically evaluate that environment. The DECLEI has been developed and validated for use in a dental undergraduate learning environment.

Method: Cross-sectional survey among 3rd and final year students and house officers of Faculty of Dentistry, Riphah International University. DECLEI forms were circulated among the participants. Only the duly and completely filled forms were accepted. Each of the 24-items on DECLEI were to be graded on 5-

point Likert scale: from strongly agree (given 5 points) to strongly disagree (given 1 point). Later on, the points were calculated into a score, which was used to grade the satisfaction level into 6 categories: from extremely satisfied, moderately satisfied, borderline satisfied, borderline unsatisfied, moderately unsatisfied and extremely unsatisfied.

Results: The study is still ongoing. So far, 90 forms have been received: 40 from final year and 50 from the house officers. Among them, 15 (16.7%) were males and 75 (83.3%) were females. The total score ranged from 35 upto 107 with a mean score of 81.82, which corresponded to the borderline satisfactory category. The same category of satisfaction was observed for 57 (63.3%) cases, followed in frequency by the moderately satisfied for 19 (21.1%) and borderline unsatisfied for 12 (13.3%) participants. Chi-square test resulted in significant association for lack of clinical infrastructure ($P=0.011$) and good clinical exposure ($P=0.009$)

Conclusion: Within the limitations of the present study, the following conclusions can be drawn: 1) Both students and house officers were only borderline satisfied with the learning environment of this college campus. 2) Study participants felt the clinical infrastructure of the campus to be inadequate, yet they had good clinical exposure

Title: Perceptions of infertility and its treatment among married couples

Authors: Maha Tariq

Institute: University Medical and Dental College, Faisalabad

Aims: Infertility is an escalating problem in our country. It can be defined as an inability to conceive after reasonable time of sexual intercourse without the use of any contraceptives. Taking that into note, the perception of married couples about infertility,

its cause and its treatment with IVF was assessed.

Method: It is a descriptive cross sectional study. A hundred and twenty people were given an 11 item pre-validated questionnaire at local gynaecologists' clinics in Faisalabad, within a span of two months (February- March). It included eligible couples, fertile or infertile, present at the gynaecologists' clinics at the time. The data was analysed using SPSS.

Results: 67% of the people were from urban areas and 33% were from rural areas. 71.6% of the people believe that infertility is a disease. 94.17% of the people think infertility should be treated medically. Infertility as a ground for divorce is supported more in rural areas. 34.4% of the people were in favour of husband opting for second marriage. 79.17% of the eligible couples chose adoption as an option. In rural areas, 17 out of 33 were aware of IVF, whereas 78 people knew about IVF in urban areas. 23.3% of the people disagreed with IVF as a treatment.

Conclusion: Married couples are facing infertility more increasingly these days. They are aware that it is a disease that can be treated medically and they know the repercussions otherwise. Adoption and second marriage are the considered options. More awareness about IVF and the stigmas related with it should be considered.

Title: To access diabetes patient health related quality of life and satisfaction with treatment

Authors: Muhammad Khaliq Afzal, Aisha Amani

Institute: Army medical college (NUMS)

Aims: The term diabetes mellitus describes a metabolic disorder characterized by chronic hyperglycemia resulting from defects in insulin secretion, insulin action or a fasting glucose level of 126mg/dl or higher. The objectives are

to determine health related quality of life among patients of diabetes and their satisfaction regarding treatment.

Method: It was a descriptive cross sectional study of 6 months duration from Aug 2017 to Jan 2018. It was conducted in Military hospital and Combined Military hospital, Rawalpindi, Pakistan. A sample of 200 was calculated using WHO sample size calculator. To determine health related quality of life among diabetes mellitus patients, we used a standardized validated questionnaire that is WHO-BREF after obtaining license of Urdu version.

Results: The mean age of participants was 55.2 \pm 8.11. The mean score for Physical domain of quality of life was 57.7 \pm 15.05 (out of total score of 100) for Psychological domain was 70.6 \pm 10.14 for social relationships was 64.4 \pm 16.02 for environmental domain was 61.9 \pm 11.53 regarding patients satisfaction the mean score for general satisfaction of patient was 3 \pm 0.24 (out of total score of 5) for technical quality was 2.5 \pm 0.75 for interpersonal manner was 2.8 \pm 0.57 for communication was 2.5 \pm 0.67 for financial aspect was 4 \pm 0.65 for time spent with doctor was 4 \pm 0.9 for accessibility and convenience was 3 \pm 0.82.

Conclusion: The quality of life of patients of diabetes was least regarding their physical domain while highest for psychological domain. The diabetic patients were least satisfied with technical quality and communication while most satisfied with financial aspect and time spent with doctor.

Title: The quality of mercy is not strain'd, It droppeth as the gentle rain from heaven

Authors: Tappana Sumpatanarax

Institute: Vachira Phuket Hospital, Thailand

Aims: Empathetic understanding had written in WFME in communication skill 1.3, 2.4-2.5.

Immediate response will be supported by compassion, love and respect in person. Defense mechanism in mature person compose of Altruism, Anticipation, Asceticism, Suppression, Sublimation, Humor, Affiliation. Mirroring neuron cells in the brain may have important role in human empathy.

Method: "Study of empathy was done in fifth year medical students (9) in clinical psychiatric study. This study was done in Talang hospital in Phuket. Medical students were evaluated empathy expression or empathetic understanding by clients and their caretakers. (Five Linkert's scale) Interesting and sincerity of performance, Understanding and opened minded listening, Acceptance to help and problem solving, Comfortable and relaxation with performance, Comfortable and relaxation with tone of voice, Comfortable and relaxation with speech word, Enthusiasm to help by all physical and mind" "Goodness" It has a scientific reason in it. It can influence you on your decision and judgement.

Results: "Total points = 35 (5*7) MS1 = 28, 23, MS2 = 35, 26, MS3 = 34, 30, MS4 = 35, 28, MS5 = 35, 32, MS6 = 35, MS7 = 35, MS8 = 34, MS9 = 25 Average (mean) = 31.07" Total points of empathy evaluated by clients and their caretakers are quite good to excellent. Average score in this group of medical students is good to excellent. It may be better to test it again and again. Clients and caretakers will help our medical students to be fulfill more than the doctors, and also with a spirit of our mankind.

Conclusion: We hope that clients and caregivers may be a new group for evaluating empathy in our medical students. Empathy may be correctly by two way communicate response and learning with mirroring of each other feelings and thinkings also. "Empathy can be endogenous and may be incorporated in every learning setting."

Title: To be a good doctor!

Authors: Matinee Konkaew

Institute: Vachira Phuket Hospital, Thailand

Aims: Good doctors understand responsibility better than privilege and practice accountability better than business. One of basic Neuro-linguistic programming (NLP) is a message that is sent to our subconscious by meaning of words. One point we noticed that messaging from teachers to students may be encouraging or discouraging to their feelings.

Method: Survey (15) was done in internists who are graduated from Vachira medical education. Focus group (10) was done in who accept to be interviewed. In-depth interview (5) was done in selected group. Mindset of our teachers can increase and decrease self-esteem of our medical students. Both of positive and negative words may have an origin from the same mouth. Increase self-esteem sentences and decrease self-esteem sentences were explored. From our paper that presented in poster at Ottawa-ICME 2018 conference about NLP can help our medical students from their exhaustion with stress. We noticed that messages may be encouraging or discouraging

Results: "Increase self-esteem" One more day support enough to get party! Let you go back to read the book! It's cool! Your answer is looked smart! Your answer might not hit to the point and it presents that you did your good homework! "Decrease self-esteem" Diligence to read can make yours better than your senior! You study medicine at this period, not the superstition! Would you like to wear your junior gown form instead! Don't answer with stupid brain! Can you please answer the question with your brain, not your spinal cord! You study in the hospital, not in the farm.

Conclusion: "Good - energetic, enthusiasm, gain self-confidence and self-esteem Less good - destroy their dream, wear off self-esteem,

blame themselves" A few speech from our teacher's mouth can create a new superstar or can remove a large superhero power from their medical student's mind! Teacher's attitude may sent to medical students.

Title: A Multicentre Comparative Study of the Management and Outcomes of Patients with Sepsis

Authors: Hassan Baig

Institute: University of Aberdeen United Kingdom

Aims: Sepsis is an extremely devastating condition world-over. In the United Kingdom (UK), medical education has sought urgent means for improving the identification, management and outcomes of the condition. This study focused on the aforementioned parameters at a centre in Aberdeen, UK in comparison to a similar-sized hospital in Lahore, Pakistan.

Method: Data was collected using inpatient notes for identifying the patients' time of arrival, time of consultation by medical staff, and the time of administration of any subsequent interventions. This was carried out in both Aberdeen and Lahore. This was tabulated and aligned with the outcome of each patient 3 days post-admission. The data was stored in a database and analysed by comparison of each centre.

Results: The study was based on a total of 104 patients across both hospitals in Aberdeen and Lahore. The results showed that comparatively, the average waiting time for consultation by medical staff was much higher in Lahore at 3.54 hours compared to 0.24 hours in Aberdeen. The average time of antibiotic administration in Lahore was 9.23 hours post-admission, significantly higher than the target treatment time in Aberdeen. Subsequently, patients in Lahore showed a 3-day mortality rate of 50.0% compared to 2.1% in Aberdeen.

Conclusion: This comparative study provided initial insight into the management of septic patients in Lahore. It is evident that further changes must be implemented to decrease patient mortality. This study could aid recommendations and improvement measures to improve outcomes, however, further research is required to gain clearer insight of the situation.

Title: e learning in IIMC - the state of affairs

Authors: Nayyab Junaaid Malik, Komal Kalsoom, Amen Shahid

Institute: Islamic International Medical College

Aims: The integration of information technology in medical education has made learners to become increasingly computer literate. There're certain influential factors that motivate medical students to use technology. In this research we intend to explore the status of eLearning in students of IIMC and identify the barriers to use of technology.

Method: A descriptive study was conducted among the students of Islamic International Medical College. The duration of study was 2 months. A questionnaire consisting of 22 questions, was to be filled by the students. Stratified random sampling was done, sample size was 220 and the response rate was 209. Data collected was regarding the use of computers, preference of study, advantages and disadvantages of eLearning, sources of eLearning, and use of certain social media platforms and medical applications for learning. Data was analyzed using SPSS-21 and MS Excel. Descriptive statistics were calculated in terms of frequencies and percentages.

Results: 33% of the students were able to define the concept of eLearning. 81% have done eLearning and the most common source is online lectures (57%). However, 67% of students prefer books for learning. Amongst the social media platforms used, the most frequently used one is Youtube (69%). The

advantages of eLearning as reported by the students are learning flexibility (48%) and various learning strategies (26%). The most common disadvantage of eLearning was distracted learning (40%). The difficulty faced by the students in the organisation are the technical barriers.

Conclusion: Before we adapt and incorporate eLearning in medical education, we need to address the barriers and careful considerations to be placed on these issues faced by the medical students.

Title: Knowledge, Attitude and Practices regarding premenstrual syndrome among 1st and 2nd year medical students

Authors: Sidra Inam, Sana Malik, Pakeeza Tahir

Institute: Faisalabad Medical University, Faisalabad

Aims: 4 out every 10 women experience pms that can affect their home and work activities significantly. Pms symptoms can be managed by lifestyle changes and professional help. Aim of this study was to access knowledge and attitude of college girls regarding pms and practices of those suffering from pms.

Method: A descriptive observational study was conducted from 1st April, 2019 to 1st May, 2019. A three sectioned prevalidated questionnaire was used. In 1st two parts knowledge and attitude were accessed. In 3rd part students were screened for pms using PSST-A and then their practices were accessed. Females having irregular cycles, hormonal abnormalities or hormonal medications were excluded from screening test. 5 pilot questionnaires were distributed and changes were made accordingly. Questionnaire was validated by 2 gynaecologists. Informed consent was taken. Questionnaires were distributed among 1st and 2nd year medical students during lectures. Sample size was 292. Data was analyzed using SPSS.

Results: Only 36.3% of study population ever

heard the word pms. After excluding girls with depression, gynaecological problems or other hormonal abnormalities, 36.87% (80) girls were found to have pms. And out of them 15% were having pdd. Out of 80 only 42 practiced something to relieve symptoms and only 8 (10%) had ever sought medical advice for it. Pms was seen to affect college work efficacy severely in 17% and moderately in 42.5% of pms positive sample. It also affected their social life activities moderately in 57% and severely in 13% of them.

Conclusion: Considerable number of students had pms and most of them had never heard the word pms. Ninety percent had never sought any medical advice for it. Students should be properly educated about this condition and they should have easy access to medical facilities.

Title: Attitude, Intention and practice of college students towards water conservation; slow the flow save H2O: a baseline intervention study

Authors: Mahnoor Aleem , Saima Parveen , Amina Zawar , Aisha Aman

Institute: Army medical college , Rawalpindi

Aims: Water conservation is need of hour and only way out of vicious cycle of water crisis. The study aim to know college students attitude and practice and intention of water conservation on prevailing water shortage in Pakistan and impact of intervention on it. As well as gender difference in response.

Method: A baseline intervention study was conducted in three schools of Rawalpindi over span of 5 months from Nov 2018 to March 2019. Sample size was 132 . Pre evaluation forms were filled and then intervention done. It consist of lecture on current water crisis situation globally and in Pakistan, it s impact on future and ways to conserve water . It was given by two fourth year MBBS students. After

that post evaluation forms were given and filled. Pamphlets were distributed . Data was analyzed using spss version 22.

Results: Attitude and intention of college students was positive before intervention. After intervention , there was increase in mean scores of attitude and intention. The difference was statistically significant (p value < 0.05) . The practice of college students was not up to mark. There was gender difference on impact of intervention , female mean score were increased more than males and difference was statistically significant.

Conclusion: In study it was found that college students has positive attitude and intention in conserving water before intervention . On intervention , the attitude and intention towards water conservation was significantly increased, it can be inferred that awareness session can play role in raising awareness and motivation for water conservation.

Title: The Relationship Between Poverty and Late-life Intelligence and Widening Participation for Higher-Education

Author: Qaisar Khan

Institute: University of Aberdeen, UK

Aims: Early-life socioeconomic circumstances (elSEC) have profound effects on late-life brain health. Improving its measurement and uncovering its mechanism will help inform social health policy and interventions into brain ageing and health. This study focused on understanding the relationship between poverty and late-life intelligence to widen participation in higher-education.

Method: This project studied children born in Aberdeen in 1950-1956. 273 participants (m=124, f=129) were recruited (2015-17) into the STRADL project when they underwent a brain MRI and various cognitive tests. Data was linked to socioeconomic status (SES) data

gathered in 1962 during the Aberdeen Children Development Survey (ACDS) as part of the Aberdeen Children of the Nineteen Fifties project. The individual cognition tests were of verbal and 'crystalised' intelligence, verbal fluency, processing speed, memory and visuospatial logic. Then either ANOVA (Analysis of variance) or correlation analysis was performed to investigate the relationship between derived variables of childhood SES and adult cognition.

Results: The result of using Principle Component Analysis (PCA) on four different ways of assessing the status of the father's occupation shows most of the variance was explained by a single factor on its scree plot. The results show that higher eISEC is associated with reduced intelligence in later life.

Conclusion: Having a poorer childhood, indicated by parents' higher poverty score was a significant predictor of lower late-life intelligence. This may be due to the direct programming of poverty on late-life intelligence, or an indirect effect of poverty leading to poor education and life choices thereby reducing higher-education participation.

Title: ROSPE-Reverse engineering of the OSPE to facilitate critical thinking and reinforcing core concepts in undergraduate physiology for dental students

Authors: Komal Atta, Zehra Niazi, Mutayyaba Majeed, Hamna Najeeb, Sehar Kainat, Sara Mehmood

Institute: The University of Faisalabad

Aims: Background: The OSCE is part of the end of year summative evaluation of physiology for BDS students, however due to limited time and excessive content, students are unable to grasp many concepts. Aims:

reinforcement of concepts of Physiology via enabling students to reverse engineer OSPEs for critical thinking.

Method: The core syllabus was divided into 5 units and one grand review for OSPE purposes. 2 OSPEs were conducted every three months, followed by one R-OSPE. The R-OSPEs comprised of 6 stations, students were given standardized patients, instruments, hints etc on every station from which they were to generate a suitable question for that station, supervisor feedback was provided after every 2 stations. At the end they wrote reflections, analysed qualitatively. Descriptive statistics were used to compare the scores on OSPEs before and after R-OSPE administration and ANOVA was applied to compare progress between different classes from 3 years.

Results: The results showed a marked improvement in mean passing scores in OSPEs taken after the ROSPE than before in all 3 batches. ANOVA testing showed that class of 2018 had superior scores to the class of 2017 and 10 respectively ($p=0.03$). The annual OSPEs of batches having undergone R-OSPEs proved to have higher scores than previous years also. Thematic analysis of the reflections of students from all three batches showed that students thought this was an effective way of revision, confidence building, initiated critical thought, most had problems with time management and many thought this exercise enhanced their own teaching skills.

Conclusion: Making the students construct their own stations from clues provided proved to be a good exercise for enhancing deeper learning and critical thinking. This can be used as an effective tool for reinforcement and revision in subjects with greater cognitive load like physiology however some constraints such as time occur.

Title: Oral Health Disparities in 6-9 years old Pakistani School Going Children

Author: Sarah Hamid

Institute: Riphah International university, Islamabad.

Aims: Pakistan, a developing Asian country, faces many challenges in delivering oral health needs. The main problem of Pakistani population especially in rural area, where majority of population resides, is lack of education, of which children constitute significant percentage. Objectives: The purpose of this study was to assess the oral health status and oral hygiene habits of 6- 9 years old school going children who belonged to posh and less posh areas and those who were residing in Rawalpindi but belonged to rural areas.

Method: Study Design: The study design of the research was case control study design. Methods: The study population consisted of 30 school going children of both sexes which were selected by convenience sampling technique. The survey was based on WHO, oral assessment form for children 2015.

Results: Evaluation of the oral health status revealed that poor oral hygiene habits were more prevalent in those schoolchildren whose parents had no or little educational background.

Conclusion: It may be concluded that at an early age, greatest need of dental health education including proper instruction of oral hygiene practices and school based preventive programs, would help children in improving preventive dental behaviour and attitude which is beneficial for their life time.

Title: Comparison of Outcomes of Aortic Valve Replacement between Sutureless and Sutured Valves

Author: Munir Khan Suratee

Institute: University of Aberdeen, UK

Aims: University of Aberdeen requires its students to plan and execute an elective research project to promote evidence-based medicine. One such project compares the outcomes of aortic valve replacement (AVR) using sutureless (Perceval) and sutured tissue valves in Aberdeen Royal Infirmary. The outcomes included thrombocytopenia, post-op echo results and in-hospital mortality.

Method: Patients that have underwent AVR were searched in the patient database and theatre logbooks. Their names and community health index (CHI) numbers were noted down and used to extract patient data through the hospital patient data access application (TRAKcare). The data was tabulated in Microsoft Excel and the relevant statistical analysis was calculated using the in-built functions. An independent t-test with a two-tailed distribution assuming unequal variances was used to compare numerical results. A Chi Square X2 analysis was used to compare categorical results.

Results: The lowest mean drop in platelet count for the sutureless vs sutured group was $38.42\% \pm 13.59$ vs $52.74\% \pm 10.64$, ($p < 0.01$). The mean AV peak and mean gradient of the sutureless vs sutured group was 25.74 ± 9.70 vs 24.46 ± 13.50 , ($p = 0.612$) and 14.20 ± 6.01 vs 12.58 ± 7.37 , ($p = 0.318$) respectively. Paravalvular leaks in sutureless group were mild or better, while there was 1 moderate and 1 severe leak in the sutured group. In-hospital mortality for the sutureless vs sutured group was at 0% vs 10.87%, ($p = 0.0145$).

Conclusion: There were no statistical differences in the performance of the sutureless and sutured valve. The sutureless group had a significantly larger fall in platelet counts but significantly lower in-hospital mortality rates than the sutured group. From these results, the sutureless valve is as good as the already proven sutured valves.

Title: Pharmacy Students' Perception From Their Current Hospital Wards Rotations (Hwr)

Author: Najia Rahim Shagufta Nesar Sadia Shakeel, Sarah Jameel Khan

Institute: Dow University of Health Sciences

Aims: To investigate the overall pharmacy students' perception about the effectiveness and utilization of their current hospital ward rotations to improve knowledge and skills of clinical pharmacist.

Method: A cross-sectional study was conducted from October 2018 to December 2018 using a survey instrument containing 21 items that was administered to obtain feedback from the final-year clinical pharmacy students of govt. and private universities. All the final-year pharmacy students who underwent clerkship training were invited to participate in this study. The obtained data were entered in SPSS V22.0 for analysis. Descriptive statistics and one-way ANOVA were performed.

Results: Of the 200 Pharm D students invited for this survey, 167 (83.5% response rate) completed the survey with the mean age of 22.58 ± 0.89 . 55.1% students from private university and 44.9% from government university. Most of the students responded moderately positive response (approximately mean score of 3.5). Students from different universities have significantly different response to some items of the questionnaire ($p < 0.05$).

Conclusion: Majority of Pharm D students who completed the survey were "moderately satisfied" with their clinical training program. Faculty or trainers should take more effort to demonstrate practice-based clinical training and provide patient-centered education to PharmD students during their hospital ward rotations.

Title: Survey

Author: Jawad Jalil

Institute: CMH RWP

Aims: Cell Phones have become ubiquitous. The aim of this study is to find out the prevalence of mobile phone usage in learning sessions and the level of distraction they cause. The perception of the students about advantages and disadvantages of mobile phone usage will also be gauged.

Method: Focus group discussions were conducted to develop themes for the questionnaires. The questionnaire was validated by medical educationists. The survey was conducted by distributing self answering questionnaires among medical students. Descriptive statistics were employed to analyze the cross sectional data using SPSS version 20.

Results: 53% students used mobiles 21-30 times/day in class. 54% texted and 17% played games. 50% spent 25-50% class time on mobiles. 30% said they use mobiles to fight boredom in class. 52% are distracted with their own mobiles but only 10% by mobiles of others. 41% said it would be good to have explicit policy about mobile usage in class and 17% think that phones should be banned in class. 22% claimed that need to use their mobiles in class outweighs learning in class.

Conclusion: The prevalence of mobile phone usage is very high in class rooms and it causes significant distraction. Students consider that their right to use mobile phone in class outweighs the distraction caused by it. Students believe that there should be no penalties for use of mobile phone in class.

Title: Do adolescents who overuse mobile phones suffer more from anxiety and depression?

Author: Samabia Javed, Mahnoor Arif, Rehan Khalil, Hassan Ashfaq

Institute: Faisalabad Medical University

Aims: Surveys suggest that people spending more time on mobile phones are more likely to

report mental-health issues. Negative social interactions and addiction are related to higher levels of depression and anxiety. The objectives of study are to assess the prevalence of mobile phone overuse and, anxiety and depression among adolescents.

Method: An observational study was conducted in public sector college in April 2019. Ethical approval was taken by institutional ethical review committee. A two section pre tested modified questionnaire was distributed using non probability convenient sampling. Sample size was 248. Data was analyzed using SPSS version 20. Results were interpreted by using descriptive statistics in the form of percentage and chi square test.

Results: The results showed that, based on the 4 categories of mobile phone overuse, 73% of individuals were overusing mobile phone. Out of 28% people with usage time of 2-4 hours, 16% were suffering from mental health problems. Out of 23% people with usage time of 4-6 hours, 36% were suffering from mental health problems. Out of 21% people with usage time of 6-8 hours, 48% were suffering from mental health problems. A p value of .007 indicates that there is a statistically significant association between mobile phone overuse and mental health issues.

Conclusion: Research evidence shows that mobile phone overuse related anxiety and depression is an escalating problem. Teenagers need adequate time away from media for sleep, physical activity, and academic activities. So, smart phone usage needs to be monitored. This study will help reveal this relationship alongside necessitating further studies.

Title: Measurement of Professionalism at Undergraduate level of Dentistry in University of Lahore using Arabian LAMPS Scale

Author: Zakia Saleem , Ayesha Hafeez , Sumayya Tariq, Muhammad Hassan

Institute: University of Lahore

Aims: Professionalism holds vital position in the field of medicine. Its significance leads to its incorporation in undergraduate curricula. Assessment of attitude towards Professionalism is equally important. The Aim of our study is to Measure the Professionalism at undergraduate level of Dentistry in University of Lahore using Arabian Lamps Scale.

Method: Arabian learner's attitude on Medical Professionalism Scale (LAMPS) has been developed according to Arabic perspective. Pakistan being a Muslim country holds numerous similarities regarding culture and religion. Therefore in our study, LAMPS is used to measure Undergraduates attitude towards Medical Professionalism. Study will be conducted on final year B.D.S students and house officers of University college of Dentistry, University of Lahore. The target population is 150. it will be a cross sectional questionnaire based study. The results will be compiled and analyzed using IBM SPSS version 23

Results: Ethical approval has been obtained and data is being collected from the participants and is in the process of analysis.

Conclusion: Professionalism is essential to be taught at undergraduate level to eliminate the unprofessional attitude of graduated medical professionals and to establish the correctness of attitude, measurement of attitudes of medical professionals is necessary.

Title: Prevalence of methylphenidate misuse in medical colleges of Pakistan

Authors: Nismat Javed, Fatimah Ahmed, Sikandar Saeed, Raham Amir, Hadia Yaqub Khan

Institute: Shifa Tameer-e-Millat University, Shifa College of Medicine

Aims: There is a lack of awareness about methylphenidate for non-therapeutic use

among medical students in Pakistan. This misuse has serious adverse effects on the students and the community. The objective of this study was to determine the prevalence of non-therapeutic use of methylphenidate and any factors associated with its use.

Method: A cross-sectional study was conducted in medical colleges of Pakistan. Students had been informed about the study and all those who gave their consent were included as participants of the study. Cronbach's alpha was used to assess the internal consistency of the questionnaire, and it was 0.80.

Results: Out of 239 participants, 117 (48.95%) were male and 122 (51.04%) were female. The mean age of the participants was 20.71 ± 1.61 . Most of the participants (83.55%) studied 1 to 3 hours a day and 88 participants (36.82%) reported a score ranging from 70% to 80% in exams. Methylphenidate was used by 24 participants. Out of these 24 participants, only 2 had a diagnosis of Attention Deficit Hyperactivity Disorder, which was significant ($p\text{-value}=0.024$). Out of these 24 participants, 20 participants used the drug due to dissatisfaction with their exam score and this was significant ($p\text{-value}=0.015$). Methylphenidate was mostly acquired from peers.

Conclusion: Students tend to misuse the drug in order to cope with their lower scores or because of low self-esteem. The benefits of methylphenidate in treating attention deficit hyperactivity disorder can also be one of the reasons for misuse. The problem is aggravated due to social influence of other students.

Title: Outcomes of Cardiopulmonary Resuscitation (CPR) in Emergency Department of AFIC & NIHD. Out-of-Hospital Cardiac Arrest Vs Witnessed-Cardiac Arrest: A Comparative Study

Authors: Rehana Khadim, Urooj Alam, Mubarra Nasir, Farhan Tuyyab, Shazia Fatima

Malik, Sohail Aziz

Institute: Armed Forces Institute of Cardiology & National Institute of Heart Diseases, Rawalpindi

Aims: To compare the clinical characteristics and outcome of cardiopulmonary resuscitation (CPR) in patients with out-of-hospital cardiac arrest and witnessed-cardiac arrest in Emergency Department of AFIC & NIHD.

Method: All the patients, presented with out-of-hospital cardiac arrest and witnessed-cardiac arrest, in emergency department during our study time period were included. Center of Disease Studies (CDC) registry for CPR was modified and used as a data collection tool.

Results: Total 163 patients were recruited in our study, upon which CPR were performed in the emergency department. Mean duration of CPR was 22.1 ± 2.6 minutes. Total number of CPR performed for witnessed cardiac arrest were 61 (37.4%) while CPR performed upon the patients with out-of-hospital cardiac arrest were 102 (62.5%). The most common underlying disease was acute myocardial infarction, in 59 (36.1%) patients. 54 (88.5%) patients revived out of 63 patients, who were given CPR after witnessed-cardiac arrest while 67 (65.6%) patients revived out of 102 patients, who were given CPR after out-of-hospital cardiac arrest and the result was statistically significant ($p < 0.01$).

Conclusion: Our study results yielded that witnessed-cardiac arrest patients have more survival as compared to out-of-hospital cardiac arrest patients.

Title: A student-initiated formative Objective Structured Clinical Exam (OSCE) in preparation for Clerkship OSCE

Authors: Farhat Fatima, Ayad Al-Moslih, Sheeba Sharfudheen, Maha Desouki, Suvarna Prakash, Alison Carr

Institute: College of Medicine, Qatar University

Aims: OSCE is long proven as a reliable and valid measure for assessing clinical skills of medical students. However, they are resource intensive in terms of faculty time, logistics and expenses. Fourth-year Medical students were offered an opportunity to initiate a formative OSCE to overcome some of the above limitations.

Method: Fourth year medical students under faculty supervision initiated a ten-station formative OSCE. Six student representatives from the batch met the clinical skills team. They had an in-depth discussion on the various Entrustable professional activities and the clinical presentations that they are expected to cover during this semester. Based on the curriculum map, students then generated OSCE stations, which were then subjected to faculty review. Students further contributed towards simulated patient (SP) training and acted as peer examiners. At the end of the OSCE feedback was collected through questionnaires comprising of both closed and open ended questions and focus group interviews.

Results: Forty students and ten faculty examiners participated in the FOSCE. Twenty-nine students (72.5%) and all examiners responded to the questionnaire. Most examines and faculty/peer examiners agreed that FOSCE was well organized and a positive learning experience. Qualitative feedback revealed that learners found the pre-OSCE meeting with faculty useful, though they felt it took quite long and planning could have been done earlier to provide ample time. Learners found both receiving and providing feedback as peer examiners useful. They however felt the number of stations could be less.

Conclusion: This student-initiated FOSCE served as a unique learning experience for

medical students. Its resource effectiveness, coupled with being an enriched learning experience makes it a feasible and acceptable means of preparing 4th year medical students for higher-stakes clerkship OSCEs.

Title: Knowledge, attitude and practices among diabetic patients regarding foot care

Authors: Muhammad Qasim, Usama Rashid, Hamza Islam, Danyal Amjad

Institute: Faisalabad Medical University, Faisalabad

Aims: Diabetic patients are at a high risk of developing diabetic foot disease. The global prevalence of diabetic foot ulcer is 6.3% with many cases of amputations. This condition is preventable by proper foot care practices. This study aims to assess knowledge, attitude and practices of diabetics regarding foot care.

Method: This descriptive cross sectional survey is carried out among diabetic patients reporting to a public sector hospital. Approval was taken from the institutional ethical review committee before conducting the survey. After explaining the purpose of the study and taking consent, 150 pre-tested and validated questionnaires were distributed and data was collected by using non probability convenient sampling technique and results were analyzed using SPSS 20.

Results: The mean age of the respondents was 52.49±11.87 years. 47.3% of the patients had good knowledge, 36.7% had moderate knowledge and 16.0% had poor knowledge regarding foot care. 67.6% of the patients had moderate practice, 17.3% had poor practice and 15.1% had good practice. Patients belonging to urban areas scored better on both knowledge and practice scales. There was found significant statistical association of education with knowledge and practice of patients regarding foot care ($P < .05$ for both). Sex and socioeconomic status had no

significant association with knowledge and practice. The patients compliant with medications also observed better foot care practices.

Conclusion: Most of our subjects had good knowledge but moderate practices regarding foot care. Education had a significant role in positively influencing the behavior of the patients. Patients should be more actively engaged in their health care plan with more emphasis on changing their behavior.

Title: Developing Meta Cognitive Skills In Medical Students

Authors: Ayesha Abubakar Mitha

Institute: Riphah International University, Islamabad

Aims: Meta cognition is thinking about one's own thinking whereby an individual selects, monitors and evaluates cognitive processes. Medical accreditation standards emphasize on meta cognitive skills as a critical part of health professional training. Aim is to highlight different meta cognitive strategies for better learning and their implications for Medical Education.

Method: I have identified related articles regarding various techniques and strategies using 2 literature databases and Google Scholar. Different strategies have been divided in two domains of Meta cognition Knowledge and Meta cognition Regulation. I have applied these strategies on two aspects of student learning including Classroom Lectures and Practical Bed side teaching in Cardiology Ward by examples. For examples I have used teaching of "HEART FAILURE - PATHO PHYSIOLOGY AND CLINICAL PRESENTATION TO 3rd YEAR MEDICAL STUDENTS" as a theme on which to apply different meta cognitive skills for understanding of the concepts involved.

Results: There is teacher's as well as student's role in developing Meta cognition skills in

students. Strategies to adopt to enhance Meta cognition Knowledge in classroom lectures as well in bedside ward teachings include: PROMPTS, CUES, QUESTIONING, SCAFFOLDING, SCHEMA FORMATION and THINKING OUT LOUD. Strategies to adopt Meta cognition Regulation include: PLANNING, REGULATION and EVALUATION. Implications for Medical Education: Higher Order Critical Thinking and Problem Solving, Becoming Mindful Of Mistakes, Reducing self-study errors and Medical errors In Clinical practice, Lifelong Self-directed learning, Active Strategic Learner and a better Clinician, Facilitator role of teachers, Student Centered Learning Process and Guides Learning Strategies and Improves Student Study Skills.

Conclusion: Meta cognition strategies for gaining knowledge and regulating processes in gaining knowledge develops a student's abilities to regulate thinking and learning. These skills are lacking in present day learners and must be taught. It teaches medical students what to learn, when to learn and how to learn.

Title: Scoping Review on Cognitive Paradigm

Authors: Muhammad Faisal Murad

Institute: Rawalpindi Medical University

Aims: The study of learning processes allows researchers to understand individual differences in intelligence, cognitive development, affect, motivation, self-regulation, and self-concept, as well as their role in learning. Our aim is to look at the outcomes of applied cognitive teaching methodologies on undergraduate medical education in a classroom environment.

Method: The methodology for this scoping review was based on the framework outlined by Arksey and O'Malley. The framework focuses on six key stages: (1) Identifying the

research question; (2) Identifying the relevant studies; (3) Study selection; (4) Charting the data; and (5) Collating, summarizing, and reporting the data in the form of results (6) Consultation.

Results: The majority of studies took place in a classical classroom setting (N= 5), whereas two occurred in non-simulated workplace settings, and one took place as a small group learning session in a workshop based study. Most studies employed quantitative approaches that were non-experimental (N=3), or experimental (N=2). Two studies utilized a qualitative, non-experimental methodology. Median sample size was 49 subjects. Psychometric approaches were utilized, with the most commonly used scale being the Likert scale. Studies particularly showed that students remained engaged, participated eagerly and performed better and learned faster with the use of multimedia.

Conclusion: In this scoping review, we found strong support for established tenets of cognitive load theory, new information to be further studied, and guidance for applying cognitive load theory in undergraduate medical education in the present and in the future. We argue that cognitive load theory is highly applicable to undergraduates.

Title: Anchoring error in emergency medicine residents and faculties

Authors: Helen Dargahi, Alireza Monajemi, Hooman Hossein Nejad, Ali Labaf

Institute: Tehran University of Medical Sciences

Aims: Studies have shown underlay the most diagnostic errors that are made in emergency wards, are cognitive errors and anchoring error was identified as the most common cognitive error in clinical setting. This research intends to determine and to compare the percentage of anchoring errors in faculty members and residents.

Method: Emergency Medicine's Faculties (n=10) and Residents (n=67) evaluated in clinical reasoning by 9 written clinical cases. A definitive correct diagnosis and the most common incorrect diagnosis were identified for each case. Cases consisted of a short description of patient's medical history, Physical Examination, Laboratory and Imaging tests results that were presented in three pages based on the process of receiving information in real situations. Participants wrote diagnoses at the end of every page, by data that revealed. Then participants determined their level of direct clinical experience with 18 diagnoses on a 7-point Likert scale. Total time for exam was 50 min.

Results: ANOVA showed Faculties were significantly higher in writing correct diagnoses than residents (66% vs 41%), but the anchoring error ratio was significantly lower in residents (33% vs 75%). Also residents and faculties' differences in reported experience with diagnoses presented as correct diagnoses were not significant, but there was a significant difference in incorrect diagnoses, so that faculties had more direct clinical exposure with incorrect diagnoses.

Conclusion: Based on dual process theory(DPT), medical errors in each mode of thinking process are different. As more experience in some area lead to using more of intuitive thinking in that situation and anchoring error that can be result of using more intuitive thinking, in faculties was significantly higher than residences.

Title: Restricted access medical journals as a barrier for learning environment in medical institutions of Pakistan

Authors: Fahad Azam, Hania Naveed, Afrose Liaquat, Abida Shaheen

Institute: Shifa College of Medicine

Aims: Doctors and researchers constantly need to be updated about findings of latest

research being conducted worldwide. Most of the latest research is not open access and academic institutions and clinical consultants in developing countries like Pakistan cannot access restricted access journals due to high subscription fee.

Method: We conducted a cross sectional study and interviewed 35 medical consultants, 63 senior medical faculty and 114 medical students in cities of Karachi, Islamabad, Lahore, Sialkot and Gujranwala about problems faced due to restricted access of medical articles. We also interviewed about how they try to access restricted access articles.

Results: Majority of the interviewed students (92%) reported difficulties in accessing international research. Most of the clinical consultants (85%) reported inability to access latest data on rare diseases and new innovations. Doctors and students used different methods to access restricted access articles including use of research sharing websites such as Researchgate (13%) and requesting data by emailing authors (9%).

Conclusion: Dearth of open access journals are a barrier to access quality research and latest updates in developing countries. The Higher Education Commission (HEC) Pakistan and Pakistan

Medical and Dental Council (PMDC) should ensure access to more research to all public sector and private academic institutions and hospitals across Pakistan.

Title: Impact of learnig styles and the perception of Educational environment among first year medical students of Federal Medical and Dental College, Islamabad

Author: Shemaila Saleem

Institute: Federal Medical and Dental College

Aims: Educational environment and individualized learning styles have recently

gained attention for framing teaching strategies that can complement them. We aimed to explore the styles of learning among medical students at FM&DC and their association with academic performance. of educational environment among first year medical students in FM&DC.

Method: A total of 100 first year medical students of Federal Medical and Dental College were included in the study. Kolb's Learning style inventory and Dundee Ready Education Environment Measure (DREEM) questionnaire were administered to the students after consent. Demographic data was obtained on a self structured questionnaire. Total DREEM scores and subscales were calculated were calculated by frequency and percentages. The Chi-Square Test of Independence was carried out to determines the association between academic performance and learning styles among the first year medical students of Federal Medical and Dental College.

Results: Table shows that most popular learning style for students with academic scores from 60-70% is assimilative, whilst for students with academic scores from 70-80% it is Convergent. For high scorers it is accommodative. The overall score of educational environment as perceived by medical students was found to be "More positive than Negative" (Fig.1) The survey showed that the students have a positive perception of learning (Fig.2). Students perceive that teachers are moving in right direction (Fig.3). Assessment of Academic self-perceptions revealed that students believe that there are many negative aspects (Fig.4) and they find atmosphere of educational environment as not bad.

Conclusion: Participant learning style was found to be associated with academic performance. We should devise teaching strategies that may be effective in increasing

academic performance. Moreover students were satisfied with their learning environment but they had some negative thoughts about academic self-perception which should be addressed by counseling and training for self-control.

Title: Perceptions of infertility and its treatment among married couples

Author: Maha Tariq

Institute: University Medical and Dental College, Faisalabad

Aims: Infertility is an escalating problem in our country. It can be defined as an inability to conceive after reasonable time of sexual intercourse without the use of any contraceptives. Taking that into note, the perception of married couples about infertility, its cause and its treatment with IVF was assessed

Method: It is a descriptive cross sectional study. A hundred and twenty people were given an 11 item pre-validated questionnaire at local gynaecologists' clinics in Faisalabad, within a span of two months (February- March). It included eligible couples, fertile or infertile, present at the gynaecologists' clinics at the time. The data was analysed using SPSS.

Results: 67% of the people were from urban areas and 33% were from rural areas. 71.6% of the people believe that infertility is a disease. 94.17% of the people think infertility should be treated medically. Infertility as a ground for divorce is supported more in rural areas. 34.4% of the people were in favour of husband opting for second marriage. 79.17% of the eligible couples chose adoption as an option. In rural areas, 17 out of 33 were aware of IVF, whereas 78 people knew about IVF in urban areas. 23.3% of the people disagreed with IVF as a treatment.

Conclusion: Married couples are facing infertility more increasingly these days. They

are aware that it is a disease that can be treated medically and they know the repercussions otherwise. Adoption and second marriage are the considered options. More awareness about IVF and the stigmas related with it should be considered.

Title: The effect of positive thinking training on resilience and social adjustment of students

Author: Ghadir Pourbairamian, Ghobad Ramazani

Institute: Medical Education Group, School of Medicine, Iran University of Medical Sciences

Aims: The purpose of this study was to investigate the effect of positive thinking education on resilience and social adjustment in students of Golestan University of Medical Sciences.

Method: Quasi-experimental, pretest-posttest with two groups (one experimental group and one control group). This study is in the field of applied research. The instrument of the study: two questionnaires of the California social adjustment standard and the Conner and Davidson resiliency questionnaire. A multi-stage cluster randomized sampling method will be used and students randomly assigned to two groups. The content of positive thinking training sessions was presented to the students during the course of eight 1-hour sessions. For data analysis, SPSS software and inferential statistics including appropriate statistical tests (Normality, independent t-test and co-variance) were used.

Results: The findings of this study indicate that positive thinking teaching method is effective on increasing the level of resiliency and also student compatibility. The assumptions of this research were confirmed at 95% confidence level. ($P > 0.001$).

Conclusion: The cognitive view emphasizes the usefulness of thoughts and cognition that

guides the person's excitement and mood. Well, there are plans to increase student resilience and social adjustment. One of the effective ways of using it is the use of positive thinking education.

Title: The effectiveness of apply formative assessment objective structured clinical examination(OSCE) for undergraduate in Faculty of medicine

Author: Sumaiah Abdulwahab

Institute: King Abdulaziz University- Faculty of Medicine- Clinical Skills Center

Aims: To determine the effectiveness of applying formative OSCE for 5th year medical students in the clinical skills module also to measure the effectiveness of self directed learning sessions. This monitoring study of appropriate formative OSCE had started on 2014 until 2018 this report was developed on going monitoring 2019.

Method: Checklist of 10 questions survey was developed and distributed to all 5th year medical students who had volunteered to participate in the formative OSCE .This to measure their competency and proficiency. The formative OSCE conducted before the cumulative OSCE at the end of module. This method was applied in 2014 and residents were involved as examiners. In 2018 this method was amended and accepted more challenges to invited house officers (interns) to participate as examiners since they were utilized as standardized patients(SP) during the formative OSCE and were retained in the inactive stations and had finished their clinical rotations.

Results: The analysis of the questionnaire was done by cross tabulation thru NCSS similar to SPSS. The result in 2014 number of students who had participated were 208 had reported there was not enough time designated for each station since the time was 5 minutes and

should be 10 minutes. About 43% reported that formative OSCE had highlighted their weaknesses in some clinical areas, 48% had experienced safe to make error without accountability and in confidential environment but they experienced difficulty with residents as examiners . In 2015& 2016 we noticed drop in students participate in the formative OSCE.

Conclusion: Overall, 5th year medical students were in favor of this form of Assessment since it reveals their weakness and prepare them for the summative OSCE as result had reduced repetition of clinical skills module. Faculty had diversity opinion reported time consuming and budget consumption. On the other hand students reported satisfaction.

Title: Prevalence of Calcium Deficiency among Students enrolled in a Private Sector University in Islamabad; A Cross Sectional Study

Author: A Momin, I Arif, A Fauz, Amama, N Fiaz, S Arooj, I Majeed, S Khan, F Amjad, N Shah, A Irfan, S Uzma, A Jabbar, T Khan, I Aslam, S Zafar, A Masood, H Idrees, M Ali, S Ejaz, T Chaudhary, I Huma, A Aqeel, R Noor, M Shafi, Q Shah, T Sultana

Institute: The University of Lahore, Islamabad Campus

Aims: To determine calcium deficiency among students

Method: The present study was carried out at the Department of Diet and Nutritional Sciences, The University of Lahore, Islamabad Campus. It was a cross sectional study, which involved 104 students, enrolled at the aforementioned department of the University. All the willing students were included in the study while those with chronic diseases were excluded. The nutritional status of the study participants was determined using Body Mass Index. Twenty four dietary recall of the students was taken which was used to

calculate daily Calcium intake using food composition tables.

Results: According to the results, out of $n = 104$ subjects, only $n = 4$ were taking Calcium as per their RDAs, while $n = 11$ were taking more calcium compared to their respective RDAs. Shockingly, $n = 89$ subjects were taking less

than the recommended daily intake of Calcium.

Conclusion: This study revealed that only 3.8% students enrolled at the Department of Diet and Nutritional Sciences, The University of Lahore, Islamabad Campus were having a daily calcium intake as per their respective RDAs.



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version to be published; and 4. Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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MATERIAL FOR PUBLICATION

The material submitted for publication may be in the form of an Original Research(Randomized controlled trial - RCT, Meta-analysis of RCT, Quasi experimental study, Case Control study, Cohort study, Observational Study with statistical support, etc.), a Review Article, a Case Report, Recent Advances, New Techniques, Debates, Book/CDs Review on Clinical/Medical Education, Adverse Drug Reports or a Letter to the Editor. Studies more than five years old at the time of submission are not accepted for publication in JIIIMC. Non- English articles are not accepted for publication in JIIIMC.

ORIGINAL ARTICLES should report original research of relevance to clinical medicine and may appear either as papers or as short communications. The original paper should be of about 2000-2500 words excluding abstract and references. The abstract should be structured of about 250 words. Three to 10 keywords should be mentioned at the end of abstract as per MeSH (Medical Subject Headings). There should be no more than four tables or illustrations. The data should be supported with 20 to 25 local as well as international references. More than 50% of the references should be from last five years.

SHORT COMMUNICATIONS should be about 1000 words, with a non-structured abstract, two tables or illustrations and 5 references.

CLINICAL CASE REPORT and brief or negative research findings may appear in this section. Clinical Case Reports should be of academic value and provide relevance of the disease being reported as rare or unusual. The word count of case report should not be more than 800 words with 3- 5 key words. The abstract should be non-structured of about 150 words (case specific) with maximum of 5 references. It should not include more than 2 figures and one table.

REVIEW ARTICLE should consist of structured overview of relatively narrow topic providing background and recent development with reference of original literature. An author can write a review article only if he/she has written minimum

of three original research articles and some case reports on the same topic. Review article should be of 2500 to 3000 words with non-structured abstract of 150 words and minimum 3 key words.

LETTERS TO THE EDITOR should normally not exceed 400 words, have no more than 05 references and be signed by all the authors-maximum 3 are allowed. Preference is given to those that take up points made in contributions published recently in journal. Letters may be published with a response from the author of the article being discussed. Discussions beyond the initial letter and response will not be entertained for publication.

OBITUARIES should be of about 250 words. Editorials are written by invitation.

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An article based on dissertation/thesis submitted as part of the requirement for a postgraduate degree (M. Phil, FCPS, MS) can be sent for publication after it has been approved by the institution's ethical review board/committee and the college/university evaluation committee/board. The data should not be more than five years old. Thesis/dissertation based article will be assessed by proper review process. Once accepted for publication, then disclosure will be made that 'it is a Dissertation based article'.

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 - ✓ Debarment of the authors(s) from further publication in the JIIIMC for one year or permanent depending upon the nature of offence.

TEXT ORGANIZATION

All manuscripts except Short Communication and Letter to the Editor should be divided into the following sections.

ABSTRACT

Abstracts of original article should be in structured with following sub-headings: i. Objective, ii. Study Design, iii. Place & Duration of Study iv. Materials & Methods, v. Results, vi. Conclusion. Four elements should be addressed: why did you start, why did you do, what did you find and what does it mean. Why did you start in the objective. What did you do constitutes the methodology and could include design, setting, patients or other participants, interventions, and outcome measures. What did you find is the results, and what does it mean would constitute; our conclusions. Please label each section clearly with the appropriate sub-headings. Structured abstract for an original article, should not be more than 250 words. At least 3 key words should be written at the end of abstract. Review article, case report and other require a short, unstructured abstract. Commentaries do not require abstract.

INTRODUCTION

Write this section with references as per following instructions:

- a. Give background information about the subject matter and the issues your study intends to address. Only strictly pertinent references should be cited and the subject should not be extensively reviewed.
- b. Describe what is known (in the literature) and what is not clear about the subject with reference to relevant literature thus identifying the literature gap.
- c. You write the rationale (justification) of your study.
- d. Finally you mention the objective of your study

MATERIALS AND METHODS

Methodology is written in past tense.

Follow this sequence **without headings**:

- Study design
- Place and Duration of Study
- Sample size
- Sampling technique
- Mention about permission of ethical review board and other ethical issues addressed.
- Inclusion and Exclusion Criteria
- Data collection procedure-
- Type of data: parametric or nonparametric
- Data analysis; including Statistical Software used, and statistical test applied for the calculation of p value and to determine the statistical significance. Exact p-values and 95% confidence interval (CI) limits must be mentioned instead of only stating greater or less than level of significance. All percentages must be accompanied with actual numbers.

RESULTS

These should be presented in logical sequence in the text, tables and illustrations. All the data in the tables or illustrations should not be repeated in the text; only important observations should be emphasized or summarized. No opinion should be given in this portion of the text.

DISCUSSION

This section should include author's comment on the results. Write in present tense, active voice- except for results, which are written in past tense. It should be written in following sequence:

- a. First of all very briefly summarize, Interpret and discuss main results and don't merely repeat the results.
- b. Discuss key studies relevant to your study.
- c. Compare your work with other's work.
- d. Describe limitations of your study.
- e. Suggest future work if necessary.

CONCLUSION

Conclusion should be provided under separate heading. It should be in congruence with the objectives. No recommendations are needed under this heading.

REFERENCES

References must be given in the Vancouver Style only. References should be numbered in the order in which they are superscripted in the text. At the end of the article, the full list of references should give the names and initials of all authors (unless there are more than six when only the first six should be given followed by et al). The author's names are followed by the title of the article; title of the journal abbreviated according to the style of the Index Medicus (see "List of Journals Indexed", printed yearly in the January issue of Index Medicus); year, volume and page number; e.g. Hall, RR. The healing of tissues by CO₂ laser. Br J. Surg: 1970; 58:222-225. References to books should give the names of editors, place of publication, publisher and year. The author must verify the references against the original documents before the article. References to papers accepted but not yet published should be designated as "in press" or "forthcoming"; authors should obtain written permission to cite such papers as well as verification that they have been accepted for publication.

TABLE AND ILLUSTRATIONS

Tables and illustrations should be merged within the text of the paper, and legends to illustrations should be typed on the same sheet. Table should be simple, and should supplement rather than duplicate information in the text; tables repeating information will be omitted. Each table should have a title and be typed in double space without horizontal and vertical lines on an 8 ½" x 11" paper. Tables should be numbered consecutively with Roman numeral in the order they are mentioned in

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S.I. UNITS

System International (SI) Unit measurements should be used. All drugs must be mentioned in their generic form. The commercial name may however be mentioned within brackets, if necessary.

PHOTOGRAPHS AND FIGURES

Figures and Photographs should only be included when data cannot be expressed in any other form. Figures and photographs must be cited in the text in consecutive order. Legends must be typed on the same paper. Legends for photomicrographs should indicate the magnifications, internal scale and method of staining.

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