

## **Anaemia**

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*Aim and Objective* : Anaemia, a frequently encountered clinical entity, is commonly overlooked and considered secondary to underlying illness but it alters the length and quality of life. Since anaemia is associated with hypoxia and ischemia, it may be possible that it may affect white blood cells (WBCs). The present study is planned to estimate total leucocyte counts, and platelet counts in anaemia.

*Methodology* : Present study was carried out in 50 patients (28 females and 22 males) of nutritional anaemia by using WHO definition (where Hb level < 13 gm/dl for men and < 12 gm/dl in women). Hb level, total leucocyte count and platelet count was carried out with digital cell counter. Data was collected from pathological laboratory and statistical analysis was done using student's t test.

*Result* : Result of this study showed that leucocyte count and platelet count was found to be insignificantly higher than basal level in anaemic patients. Leucocyte count (9446 cells/cu mm of blood) and platelet count (323520 cells/cu mm of blood) were found higher within the normal range in this study.

*Conclusion* : In this study, Leucocyte count in anaemic patients found to be higher within normal range because anaemic condition causes hypoxia and ischemic damage to the tissue which is responsible for alteration in leucocyte count. Mechanism of higher within normal range of platelet count was not known. This elevated leucocyte count (even within

normal range) is considered a risk factor for cardiovascular and ischemic diseases.

**Abs.HE.14**

## **Comparison of Platelet Count in Normal Pregnancy and PIH**

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*Objective* : To observe and compare the Platelet count in Normal Pregnancy and PIH.

*Method* : A total of 100 pregnant women were enrolled in the study. The cases comprised of two groups. Control group consisted of 50 cases of normal pregnant women of the second and third trimester. Study group consisted of 50 cases of Pregnancy Induced Hypertension. Pregnant women with anemia and risk factors like cardiovascular disease, diabetes mellitus, hemorrhagic disorders, renal and hepatic disorder and history of drug intake, which can affect platelet count were excluded from the study. Platelet count was done by automated method.

*Results* : Comparison of Platelet Count in Control group with PIH cases of study group showed statistically significant result with  $P < 0.05$ .

*Conclusion* : Low platelet count was observed among women with PIH when compared to cases of normal pregnancy.

**Abs.ME.01**

## **First Experience with OSPE in Physiology : Blueprint to Reliability Testing**

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*Objective* : Objective Structured Practical Examination (OSPE) is being practiced in a few medical colleges as it is a valid as well as reliable method for assessing the skills among the medical students. The Department of Physiology of SDUMC planned to conduct OSPE for the first time as formative assessment by developing a blueprint and testing the reliability before introducing it for the summative assessment.

*Method* : Faculty attended the OSPE workshop conducted by Medical Education Unit. A total of 10 stations were prepared according to the blueprint developed based on skills that were identified to be assessed. 2 were performance stations and the rest were response stations. Observers at the performance stations were faculty from the department who scored the student as per the prevalidated checklist. The students were briefed about this new assessment method before the examination and 25 students were simultaneously examined in 2 circuits of similar stations.

*Results* : The total scores obtained were tabulated and tested for reliability. Cronbach's alpha, a measure of internal consistency was determined for each station. Literature shows a value of 0.6 as acceptable for OSPE station. It was planned to revise and reconstruct the station with low reliability coefficient values. Student perceptions collected by feedback revealed student satisfaction. Feedback from faculty revealed enthusiasm and motivation.

*Conclusion* : OSPE requires careful planning, training all faculty involved, team work in

making a blue print and validation of checklist. It also provides a feedback for teachers with respect to skills that need more attention.

**Abs.ME.02**

### **Awareness Regarding Doping Among Students : A Survey**

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*Objective* : To find out awareness regarding doping among pharmacy students.

*Method* : A prospective survey was conducted in the department of pharmacy, Pt B.D.sharma University of Health Sciences Rohtak using a structured questionnaire (1-12) regarding what is doping? Name the drugs used for doping, what are the samples send for testing? What punishment is given if player found positive? What is WADA & No-needle policy for U.S Olympic committee etc and results were analyzed.

*Results* : A total of 120 undergraduate students were included. Most of (55.7%) students knew about doping. 40% students had no knowledge about the types of doping. Out of 120 students 55% were unaware about the doping tests. 66.8% students had knowledge regarding the health hazards of using drugs for doping. Majority of students (70%) knew regarding the games in which drugs are taken by the players. However 60% students had no knowledge about the positive cases detected in India. About 60% students had knowledge regarding punishment, if found positive for doping test. However, 30% students did not know the full form of WADA. Majority (70%)

students had knowledge about the no-needle policy for 2012 London Olympics.

*Conclusion* : Most of the students have awareness regarding doping.

**Abs.ME.03**

**Study of Student's Feedback on Present Teaching-learning Patterns**

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*Objective* : To study students views on various teaching and learning methods used at present and to make necessary adjustments in the same for the better understanding of the subject.

*Methods* : The study was conducted on 200 students (100 students from 1st year 2011-12 batch and 100 students from 1st year passed batch). A questionnaire was prepared having various types of questions including different patterns of lectures, group discussions, tutorials, demonstrations, students seminars & quiz. Students were asked views regarding different methods used for teaching like use of AV aids or chalk and board time-table, duration of lectures, communication with teachers & number of examinations. These were some of the areas regarding which the students views were taken.

Students feedback was taken with the help of a proforma.

*Results* : The remarks of the students were analyzed and percentage was calculated.

*Conclusion* : The active participation of the students in teaching learning process is

necessary. Students preferred small group discussions rather than didactic lectures. And still, conventional chalk and board teaching is popular amongst the students.

**Abs.ME.04**

**Medical Education – A Students Perspective**

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*Objective* : To assess the perception of students about the current teaching methodologies practiced in medical colleges of India.

*Method* : A confidential questionnaire based study was conducted in first year medical students studying in Vardhman Mahavir Medical College. Their perception regarding utility of didactic lectures, tutorials, practicals, theory and practical examinations were assessed. Their perceptions were correlated with their actual performance in exams. Further correlation was made of actual attendance in classes with performance in final examination. Performance of the students was also correlated with the education levels of parents.

*Results* : There was a significant association ( $P < 0.05$ ) between the education level of parents and performance of the students in all the examinations. Overall attendance in classes – both theory and practical showed significant ( $P < 0.05$ ) positive correlation with performance. Regarding utility of lectures, 60% of the students felt that lectures were

useful (positive responders) where as 98% students felt that tutorials were useful and 99% students think practicals are useful. Amongst these students 79% of them felt that computer aided teaching was useful and 90% of them felt that the content of the lectures was very important. In this subgroup there was a significant ( $P < 0.05$ ) difference in marks obtained between positive responders and negative responders.

*Conclusion* : Majority students consider lectures, tutorials and practicals useful but there has to be improvement and standardization of medical education as shown by response about lecture content and use of computers.

**Abs.ME.05**

### **Comparative Study of Different Teaching Methods in Medical Physiology**

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*Objective* : We investigated whether students prefer and performed better from Power Point presentations method of delivering lecture from traditional chalk and board method.

*Method* : A total of 100 students were allocated in two groups, group A and group B (50 students in each group). Group A received the lectures in PPT and the same topic had taken by the same teacher in chalk and board method to group B. Both the groups received a series of three lectures. An objective test comprising of same 10 MCQs was given before (pretest) and after (post test) the each lectures to both the groups to assess

their performance after attending the class in that particular method of teaching. One more objective test comprising of 20 MCQs was given after finishing the series of three lectures to both the groups to assess the difference of score in blackboard method and power point method of teaching.

*Results* : Marks in objective test consisting 20 MCQs after series of three lecture classes. The mean score of the group A students was 12.21 with standard deviation of 3.8 and group B students mean score is 11.95 (SD- 2.66). Statistical analysis of these data showed that the difference of scores in these two groups after series of lectures was not significant ( $P = 0.754$ ).

*Conclusion* : Student's performance does not depend on the teaching media. Even with simple chalk and board method can be as effective as latest PPT method. As far as subjective preference is concerned students prefer combine methods of teaching.

**Abs.ME.06**

### **A Questionnaire Based Pilot Study to Evaluate the Knowledge and Training Experience of Cardiopulmonary Cerebral Resuscitation (Basic Life Support and Advanced Cardiac Life Support) Among Interns and Resident Doctors**

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*Objective* : Primary Objective : To evaluate the knowledge and training experience of

basic life-support and advanced cardiac life support in cardiopulmonary resuscitation among Interns and resident Doctors.

**Secondary Objective** : To identify areas for improvement in education/MBBS curriculum.

**Method** : This cross-sectional descriptive study was conducted in a standardized interview format using a structured and fixed-alternative (multiple-choice) questionnaire derived from the most recent guidelines on adult BLS produced by ILCOR and adopted by AHA (newly updated 2010 guidelines). All participants were assured of full confidentiality and verbal informed consent was taken from them. Pearson's Chi square test was used to analyze the association between CPR knowledge among participants.

**Design** : The sample size for the study was 200 which included 100 Interns and 100 resident Doctors and sampling method was Simple random sampling. Study group had Interns and resident doctors in age group of 25-50 years.

**Results** :

1. Trained participants scored better than Non-trained participants on both Knowledge-based and Training-based questions.
2. Trained participants scored better than Non-trained participants on both BLS and ACLS questions.

**Conclusion** : There is a clear need for a review of basic life-support and advanced cardiac life support education among Interns and resident Doctors with determined efforts to conduct more number of hands-on-training CPR workshops, so as to keep them updated about

recent guidelines. Also, there is a need to introduce this training in a formal manner as part of first year of MBBS curriculum in Medical colleges followed by reinforcing their skills thereafter.

**Abs.ME.07**

### **Evaluation of Structured Oral Examination (SOE) as a Tool of Assessment in Physiology**

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**Objective** : In order to improve validity, objectivity and reliability of oral theory viva examination, we have introduced structured oral examination (SOE) along with conventional oral examination, first in preliminary examination, followed by first MBBS University examination held in August-2011. SOE minimizes the degree of subjectivity.

**Method** : SOE was designed to assess the cognitive and affective domains. It tested memory recall, reasoning, deep knowledge and problem-solving ability of the students. 70% questions were from Must Know area, 20% from good to know and 10% from Nice to Know area of the Syllabus. Each student was exposed to same set of questions for similar duration (4 minutes) of time and same examiner on the day of the examination. The SOE was evaluated objectively by studying the result of the students in terms of success rate and grading as well as by a subjective feedback from the students. The marks obtained by the students on SOE were

compared with the marks obtained by the students by the conventional oral examination.

*Results* : The study found that the mean marks of students were significantly lower in the SOE as compared to the conventional method. However, SOE was found to be a better tool of assessment to grade student's performance. Student feedback revealed that SOE was liked by majority of the students (90%) in terms of satisfaction. Students were of the opinion that their knowledge was tested objectively in a better manner, it reduces the luck factor, minimizes their stress level and improved their confidence.

*Conclusion* : It can be concluded that SOE is a better tool for oral examination and can be regularly used in formative and summative assessment of students in Physiology.

#### **Abs.ME.08**

### **Research Quest Amongst Medical and Dental Residents**

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*Objective* : To evaluate residents' knowledge, attitude and practices towards research methodology.

*Method* : A cross-sectional, questionnaire based survey was conducted amongst residents of Jawaharlal Nehru Medical College and Sharad Pawar Dental College, Sawangi (Meghe), Wardha, Maharashtra. A questionnaire comprised of 7 items on knowledge, 4 items on attitude and 3 items on practice was prepared and pre-validated. The questionnaire

was administered to 69 residents and collected next day. Data was analyzed and knowledge, attitude and practice score were expressed as percentages.

*Results* : Response rate for questionnaire was 100%. Cronbach's alpha, a measure of internal consistency of questionnaire items, was 0.939. Mean scores for knowledge, attitude and practice were 56.31, 69.57 and 33.33, respectively. Knowledge and practices score was found to be higher in third year residents as compared to first year residents. Knowledge score increased with increase in age and found to be significantly higher in residents of medical faculty [Pearson coefficient ( $r$ ) = 0.2181 ( $P=0.0358$ ) and  $r = 0.4461$  ( $P<0.0001$ ), for age and faculty of residents, respectively]. Practice score was increased with increased in residency years [Pearson coefficient ( $r$ ) = 0.5027 ( $P<0.0001$ )].

*Conclusion* : Knowledge and practices towards research was found to be better in final year residents and especially medical residents as a result of extensive training during their three year residency period and their involvement in research projects.

#### **Abs.ME.09**

### **Students' Perception on Seminars : A Questionnaire Study**

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*Objective* : Considering the rising intellect of students and to develop scientific temper

among undergraduates the concept of seminars was introduced in first year MBBS students. While seminars were going smoothly we have given a questionnaire to students to know their views pertaining to the system so that it can be made better in future.

*Method* : A questionnaire had been given to them where they were supposed to write their views on conduction of Seminars. They were also asked to write their views on advantages and disadvantages of system.

*Results* : The views obtained from all students were calculated as percentages of their choices. Ninety four percents students found it to be informative. Eighty eight percent students believe that it diminishes the hesitation of public speaking whereas remaining twelve was against the same. Eighty nine considered it to be good source of extra knowledge while remaining eleven doesn't think so. Mixed responses were observed when enquired about inclusion of system in university curriculum (62% in favor and 38% in against). Seventy percent read topic before seminar whereas fifty percent pupil read it after topic covered.

*Conclusion* : Learning is not a spectator sport. Students do not learn much just sitting in classes listening to teachers, memorizing pre packed assignments and spitting out the answers. We feel that implementation of student's seminars as a revision exercise should be explored as a teaching-learning method after knowing the views of students. The fact that it was equally beneficial for all students adds to its usefulness.

**Abs.ME.10**

### **Motivation and Preparedness of First**

### **Semester Medical Students for a Career in Medicine**

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*Objective* : Medical profession is a preferred choice of career among Indian students. The purpose of this study was to determine the motivation of new medical students towards a career in medicine and their knowledge of and preparation for the demands of such a career.

*Method* : After Ethical Committee approval, all students admitted to the medical course in August 2009 at a medical college in Delhi were administered an anonymous twenty point questionnaire. It was pretested on 10 volunteers of the target batch and modified based on their feedback; the instrument was reliable (Cronbach's alpha varied from 0.7 to 0.9 for all items). Data was analysed by descriptive analysis.

*Results* : A total of 150 students were admitted but only 132 students were available on the day of the study. Two questionnaires were returned unfilled while 27 were incomplete; finally 103 questionnaires were included. 65 (63%) students had decided on a medical career before class 10 and 57 (55%) got admission after 2 attempts. Two-thirds had a family member in the health field and three quarters were strongly encouraged to take up medicine by family. Only half had sought career guidance from a medical person; between 67-80% had never undergone a career preparation activity prior to making the decision. Less than 20% students had accurate knowledge about subjects and examinations

in the curriculum.

*Conclusion* : The findings from the case study suggest that students are 'early deciders' and are highly motivated to join the medical profession though a majority do not avail any career guidance nor pursue career preparation activity. Thus their knowledge about the medical curriculum is poor. Family being a strong motivating factor, they should encourage students to take up career preparation activities to prepare them better for a career in medicine.

#### **Abs.ME.11**

### **Attitude of Students Towards Peer Physical Examination (PPE)**

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*Objective* : There is greater emphasis on clinically oriented teaching and early exposure to clinical work for medical students. There is limitation to practice and perfect the skills on sick patients. Hence, standardized patients are used for practice of clinical skills. However non-availability of trained standardized patients, high cost of employing them poses a challenge to training medical students. The viable alternative is to use the peers for skill training. It can be a potential area of student discomfort or inappropriate behavior by classmates or tutors. Present study assesses the attitude of students towards PPE.

*Method* : Fifty three third term medical students (23 males and 30 females) were

administered a structured and validated questionnaire with 15 questions to assess elements of comfort, professionalism, appropriateness and value of PPE. Students responded to questions using a five-point Likert scale, where 1 = strongly agree, and 5 = strongly disagree.

*Results* : The pattern of response was similar for male and female students. 81.82% were comfortable with PPE for practice of clinical skills. 32.90% were comfortable examining peers of opposite sex. 18.04% felt it was appropriate to perform breast, genital and rectal examinations on peers. 2.17% agreed to volunteer for such examination.

*Conclusion* :

1. Majority of students preferred PPE to standardized patients for practice of clinical skills.
2. PPE was preferred as it provided valuable feedback, better learning experience, and felt examining classmates was appropriate.
3. However they felt inappropriate to volunteer or examine breast, inguinal, genital regions of classmate as a part of PPE.

#### **Abs.ME.12**

### **Does Learning Styles Influence Student Performance ?**

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*Objective* : Medical curriculum is academically challenging and medical students often underperform in the university examinations especially in the first year of their course. Knowledge of their learning styles will help in their academic preparedness and obtain the ultimate goal of good academic performance. The study was designed to ascertain the learning style of the students and discover the relationship between learning style and academic performance in the university examinations.

*Method* : First year MBBS students were given a set of VARK (Visual, Auditory, Read Write and Kinaesthetic) questionnaire and their learning styles were analysed after informed consent. They were classified as a unimodal when they showed single dominant preference like visual, auditory, read write or kinaesthetic, bimodal with any 2 dominant preferences, trimodal or multimodal when they have 3 or more preferences. Their university examination performance in theory and practical were tabulated and analysed against their learning styles.

*Results* : Majority of the students were found to have unimodal learning style with predominant preference to auditory as was seen in previous batches. On academic performance, high achievers (>65% marks) were unimodals distributed equally among auditory, visual and read-write. Kinaesthetic learners achieved better in practical examinations as compared to theory. There was no gender variation in academic performance.

*Conclusion* : Students with unimodal learning styles showed good academic performance. Special attention may be given to bi, tri and

multimodal learners to strengthen any one of their preferred style to improve their academic performance.

**Abs.ME.13**

### **Educational Environment : Undergraduate Medical Student's Perception**

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*Objective* : Study aimed to measure Undergraduate Medical student's perception of learning environment and identification of areas of concern in Gandhi Medical College, Bhopal.

*Method* : The Dundee Ready Education Environment Measure (DREEM) questionnaire was administered to 505 undergraduate students of preclinical, paraclinical and clinical semesters. The details of the questionnaire were explained and anonymity was maintained. The mean scores were calculated and tested statistically.

*Results* : The overall response rate was 72.27%. A more positive self perception of learning was reported by 86% of preclinical, 63% of paraclinical and 73% of clinical semester students. Less than 12% students viewed teaching negatively. 76% of preclinical, 79% of paraclinical and 86% of clinical semester students responded that teaching is being done in the right direction. Nearly 10% of students felt a need of retraining of some of the course organizers. Regarding academic self perception, 55% of preclinical, 63% of paraclinical and 59% of

clinical semester students felt more on the positive side. Only 5% students had a feeling of total failure. 57% of paraclinical and 49% of clinical semester students had a good overall feeling regarding perception of atmosphere whereas 71% of preclinical students felt that many issues needed change. 24% of preclinical, 45% of paraclinical and 47% of clinical semester students felt socially well adjusted.

*Conclusion* : The study concluded that there is need to create and maintain a student friendly environment in addition to implementing interventions to remedy unsatisfactory elements of the learning environment for an effective teaching and learning experience.

**Abs.ME.14**

**To Compare the Efficacy of LCD Projector, Overhead Projector and Blackboard as a Teaching Tool in First Year Medical Students**

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*Objective* : The teaching–learning process in first year medical students is especially crucial because it is the time that they are taught about the fundamental concepts of medicine and their application. The onus lies on the medical faculty to present the vast amount of information to the students in an organized and integrated manner. It is also necessary to understand the learner’s learning attitude and style preferences, with which he/she efficiently stores and recalls the desired information, for

optimal dissemination of information. This study was designed to compare the efficacy of the various teaching aids.

*Method* : The study was conducted in the Department of Physiology, VMMC & Safdarjung Hospital on 93 students who were divided into 3 groups with each group being taught the same topic using an Overhead projector, Black board and a LCD projector respectively. Identical questionnaires were used to test the student’s comprehension of the topic immediately afterwards.

*Results* : It was observed that the group taught on the LCD projector scored significantly better than the rest. However, on being asked their preference for the mode of instruction, 40% opted for the blackboard as they felt that its pace was easier in taking down notes.

*Conclusion* : LCD projectors are a superior teaching aid as they have the advantage in being able to present the same content with excellent audio-visual clarity. However, the teaching faculty must ensure that it is used judiciously to maintain its benefits.

**Abs.ME.15**

**Assessment of Learning Style Preferences Among Male and Female Medical and Dental Undergraduate Students**

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*Objective* : *Primary* : To compare the learning

preferences of male versus female medical and dental undergraduate students.

*Secondary* : To investigate style preferences of first year versus second year medical and dental students.

*Method* : 235 medical and dental students were evaluated for their learning style preferences using the VARK (Visual, Aural, Read-write and Kinesthetic) questionnaire.

*Results* : Among the female students 80% had a predominant single preferred modality of internalizing information with bimodality (17.7) and tri modality (2.3) being less common.

Male students also had a predominant single preferred modality of learning (86%). Among the female students whose dominant learning style was unimodal; 39.7% preferred K, 23.4% preferred A, 11.4% preferred R and 4.2% preferred V.

Male student also showed a similar percent distribution of V, A and K modalities i.e. 6.3%, 10.9% and 39.1% respectively. However, the preference for aural mode of learning was higher in males (31.3%) as compared to females.

VARK learning preferences between first and second year were also compared. 5.3% of first year students preferred V, 18.6% preferred A, 11.5% preferred R and 31% preferred K. Similar VARK preferences (5.1%, 17.9%, 12% and 30%) were seen among second year students.

*Conclusion* : Acquiring information utilizing a single predominant modality was most common irrespective of gender with overall predominance of kinesthetic mode. For

predominant single modality, data for male and female students were comparable for all modalities except for aural mode which was more preferred among male students. There was no difference in the preferred learning style among the two successive years of medical and dental curriculum.

#### Abs.ME.16

### Knowledge and Awareness Regarding Hepatitis B Vaccination Among Health Care Workers (HCWS)

Avjot Miglani

*Objective* : The present study was designed to evaluate the degree of awareness and knowledge of HBV in Health care workers (HCWs) i.e doctors,nurses and lab technicians.

*Materials and Methods* : One hundred and fifty health care workers comprising of doctors,nurses and Lab technicians were interviewed after taking verbal consent using a self administered questionnaire in PIMS hospital,jalandhar (Dec 2010).

*Results* : Majority were in the age group of 25-40 years. On an average, 89% doctors, 81.7% nurses and 80.3% had correct knowledge about Hepatitis B infection respectively while 11% doctors, 18.3% nurses and 19.7% lab technicians exhibited incorrect level of awareness about transmission of Hepatitis B.

*Conclusions* : Low vaccination coverage contribute highly to the rates of viral hepatitis infections among HCWs. Prevention of occupational infection with bloodborne

pathogens should be a priority to the national program for promotion of infection control.

**Key words :** knowledge, awareness

**Abs.ME.17**

**Curricular Innovation in Outcome Based Education – A Three Year Comparative Study in Medical Students of Physiology**

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*Objective :* Outcome based education (OBE), an innovative curricular approach focuses on identification of learning outcomes, modifying curriculum towards identified outcomes and creation of specific assessment strategies. This study was conducted to evaluate the impact of OBE on final theory exam performance in medical students of physiology over a three year period. The objective was to assess the influence of this programme on performances in final university exams.

*Method :* The university performances of first MBBS regular batch students of three consecutive years were evaluated. The 2005-06 batch students were only given tests after each chapter. The 2006-07 and 2007-08 batches were given weekly MCQs and unit-wise small practical tests as well. To assess whether this innovation led to an improvement in the final exams as well, performances in the theory university-examinations for all three batches were compared. One sample t test was done to compare the results.

*Results :* A significant increase of 6.8% (P=0.027) was observed between 2005-06 and 2006-07 batches in the number of students who had passed. A 4.4% (P=0.017) increase was observed between the 2006 -07 and 2007-08 batches. A highly significant improvement of 11.22% (P=0.002) was observed in the performance when 2005-06 and 2007-08 batches were compared.

*Conclusion :* Adopting an outcome based approach has enriched the learning experience for students and motivated independent study. This has been justly mirrored by the vastly improved performance in final theory exams. OBE is a powerful curricular innovative tool for teachers.

**Abs.ME.18**

**Attitudes Driving the Selection of Medical Career and Pre-existing Knowledge Regarding Curriculum Among the First Year Medical Students**

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*Objective :* To become a doctor is the ambition of many students. To treat patients and put them on the road to recovery gives an immense delight, something one will not get from many of the professions. Each year, students get admitted to medical colleges with definitive objectives, attitudes and pre existing knowledge. Students with humanitarian touch, service oriented minds aiming towards global health care should opt this profession.

Awareness about this profession would certainly help to remove their misconceptions and achieve their aims. In order to ascertain this pre existing knowledge regarding medical training, to study their attitudes and difference in knowledge if any, based on gender and nationality among newly joined students, the present study was carried out.

*Method* : We included ninety students who had just joined for their first year course of a private university medical college in Karnataka state, India. Content, construct validity and test retest reliability were applied to a questionnaire that was developed by the investigators. Responses were compiled and statistically analysed.

*Results* : The results revealed that motivation for selecting this profession seems to be less for social service and more for financial gains (75.3%). 61.8% males and 83.6% females had this opinion. High percentages of the entire study group were unaware of the intricacies of learning medicine.

*Conclusion* : Humanitarian service as the reason behind opting for medical course is declining and rather financial motivation is increasing. The students were unaware of the training process and they need to develop qualities like social commitment, professional courtesy and compassion.

**Abs.ME.19**

### **To Introduce Case Based Learning in Endocrine Physiology to the Ist MBBS Students**

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*Objective* : To promote self learning, integrate basic sciences with para & clinical subjects, encourage application of theory based knowledge to solve problems, increase knowledge of peer group about CBL, motivate peer group to become facilitator & make the process of learning interesting & enjoyable.

*Methods* : 150 students of I MBBS were selected for the study. Institutional Ethical Committee's permission was obtained. Institutional Facilitators Training Programme was conducted in the dept. A conventional didactic lecture was taken on Thyroid gland. Students were briefed about the new intervention. A case of multi-nodular goiter was given to students as CBL case in 2 sessions, students were divided into multiple groups of 10 & to each group a facilitator was appointed. Attitude survey of the students regarding the intervention in the form of a feedback questionnaire (9 items on 5 point Likert scale ranging from 'strongly disagree' to 'strongly agree') & the survey on self appraisal in the form of pre & post test by the staff was done.

*Results* : The case based learning was widely appreciated by the students & Staff of the department. Students opined that it helped them in better understanding & retention of the subject knowledge (72%), helps in integrating basic sciences subjects with para & clinical subjects (70%), improves communication skills (79%) & in improving teacher student relationship (85%). Some teachers opined that it requires more manpower & time & only limited topics can be covered by CBL In order to assess the

overall impact of intervention; the non-parametric Wilcoxon Signed Rank test was used to analyse the score of pre & post test. The application of above test resulted into a P-value of 0.018 with test statistic value of -2.375.

*Conclusion* : CBL helps in self learning, improved assimilation & better retention of knowledge, initiated coherent & integrated thought process to imbibe knowledge from different subjects and in evolution of effective problem solving technique. It also improves communication skills, group dynamics & better teacher student relationship.

**Abs.ME.20**

### **Role of Simulations in the Teaching of Physiology at AIMST University, Kedah, Malaysia**

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*Objective & Background* : The banning of animals for experimentation in the teaching of physiology has necessitated a need to evolve new ways and techniques for effective teaching of the subject to undergraduate medical students. At the AIMST University, simulation techniques and videos have been employed since 2009 for an effective teaching of physiology to undergraduate medical students for a clear understanding of several important difficult concepts of cardiovascular and other organ-based systems of physiology. Task trainers, high fidelity simulators and

videos have been used in the delivery of the subject. Even though these approaches are still not widely in use yet it has been found to be effective tools. This presentation examines some simulation techniques for teaching some of the important concepts in cardiovascular physiology.

*Materials* : Use of video based training, High fidelity and low (task) fidelity simulators, Didactic lectures on the chosen topics. Questionnaires (pre and post).

*Methods* : Over 400 students have been taught concepts in CVS through simulations at central skill center at the AIMST University, Malaysia. These concepts include :

- i) Concepts of the cardiac cycle using video clip that shows real time activities within the heart in correlation with the cardiac cycle.
- ii) Normal and abnormal heart sounds and their correlation with valve activity are taught using a video clip.
- iii) Clinical scenario, using a high fidelity simulator (METI), to illustrate graded hypovolaemic shock and the benefit of fluid therapy, Hyperventilation, hypoxia and their attendant corresponding changes in physiological parameters.

*Results* : Discussion – Understanding the complex concepts of events of the cardiac cycle and the mechanism of hypovolaemic shock, hypercapnia and hypoxia were made easy through visual effects. Students got a better understanding and it helped to consolidate the theoretical concepts of the cardiac cycle, Starling's principle and changes

in physiological parameters such as BP, SpO<sub>2</sub>, ventilation, ECG in disease states.

*Conclusion* : Formal and informal feedbacks taken from students and teachers have been very encouraging. Inclusion of simulations for teaching/learning physiology is highly recommended. However, the cost benefit of using high fidelity simulator is yet to be ascertained.

**Abs.ME.21**

### **Clinically Oriented Model of Pharmacology Practicals For Undergraduates : An Initiative**

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*Objective* : In the current era of technical advances traditional pharmacy and animal experimentations are mere exercises. Moreover sacrificing of innocent animals has always been criticized. This is an initiative to modernize pharmacology practicals while remaining attached to the old roots.

*Method* : Practical curriculum is modified as per the recommendations of MCI and DGHS with regard to our limited resources. Entire exercise is divided into 5 'phases'.

**Phase I** : Imparts knowledge regarding basic concepts of pharmacology and recent terminology through short discussions.

**Phase II** : Modernized version of pharmacy without dispensing tools. Students

demonstrated different dosage forms and given project work to collect a particular dosage form from associated hospital.

**Phase III** : Phase of animal experimentation with the help of drug charts, graphs, computer assisted learning [CAL], etc.

**Phase IV** : Clinical oriented exercise where students are demonstrated different clinical devices, setting up of i.v. line, drip rate calculation, etc.

**Phase V** : Applied and therapeutic exercise in which students learn and practice clinically relevant prescription writing, FDCs, drug interactions, PBL and drugs under special conditions.

Students are assessed by a viva after the completion of each phase followed by a final grand viva.

*Results* : Feedback from students and clinicians has been very encouraging. Students taught by this pattern found it to be interesting and quite useful, specifically phases IV & V, while studying clinical subjects and doing internship. The pattern is also appreciated by examiners from different colleges and universities.

*Conclusion* : Pharmacology is the backbone of medical curriculum but out dated pattern has reduced the interest of students and fails to impart desired clinical skills. Small efforts, like ours, can help change this scenario.

**Abs.MT.01**

### **Poincaré Plot of Heart Rate Variability : A New Approach Towards Explaining the**