



KING SAUD bin ABDULAZIZ UNIVERSITY  
for HEALTH SCIENCES

# 3<sup>rd</sup> Competitive Preparatory Scientific Meeting for Students of KSAU-HS

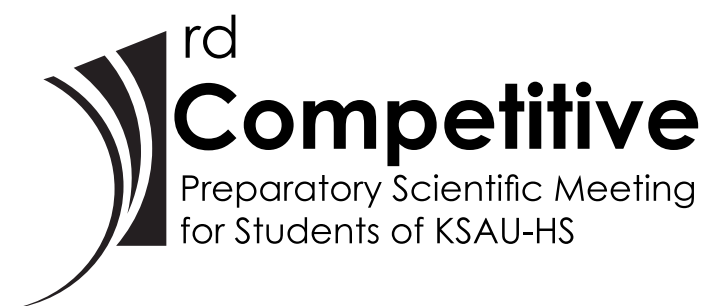
3<sup>rd</sup> of April 2012

COM F, King Saud bin Abdulaziz University for Health Sciences

Abstracts  
**BOOK**







rd  
**Competitive**  
Preparatory Scientific Meeting  
for Students of KSAU-HS

**King Saud bin Abdulaziz University for Health Sciences**  
**3<sup>rd</sup> of April 2012**

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## Foreword



**H.E. Dr. Bandar Al Knawy, MD, FRCPC**

President, KSAU-HS & CEO, NGHSA

It gives me great pleasure to introduce this booklet of the research production of our students at King Saud bin Abdulaziz University for Health Sciences (KSAU-HS). The volume and quality of abstracts published in this book represent a unique and significant achievement towards realizing our University mission of enhancing and fostering scientific research. What is special about this book is that all contents are authored by students from all Colleges of this University under the supervision of their faculty. In my own view, this is a good predictor of graduating health professionals who cares for research to make informed decision based on scientific evidence generated from high quality research.

I would like to take this opportunity to congratulate all the participating students in the Preparatory Research Conference, in addition to the scientific and organizing committees, for their hard work and team efforts to organize this important conference. From our side as leaders of this University, we will provide all possible support to encourage students' research and similar activities in the future.

## Foreword



**Professor Youssef Al Eissa MD, FAAP, FRCPC**

Vice President, Educational Affairs

Since the establishment of the King Saud bin Abdulaziz University for Health Sciences (KSAU-HS), research has been highlighted as an important approach in realizing the mission, strategies, and activities of our University. Research is well incorporated and integrated in the curricula of all Colleges. For instance, the biomedical research block at the College of Medicine runs longitudinally through the four-year medical program where each student is expected to write a proposal, implement the research, and formulate a scientific manuscript. Therefore, it is not surprising to see this reasonable volume and high quality research that are put together in this booklet.

I am proud to convey this message to thank all students for their significant efforts, and perseverance that allow them to spend time out of their busy schedule to participate in this important conference. I would like to take this opportunity to thank all students, the scientific and organizing committees, and support staff for their collaborative efforts to ensure an organized and successful event.



**PROF ALI AL TUWAIJRI,**  
Dean, Deanship of Student Affairs, KSAU – HS

As you are aware, KSAU – HS is organizing a very important University event – **the Preparatory Meeting for the 3<sup>rd</sup> Scientific Conference of Higher Education Students.** This meeting will be organized under the auspices of Prof. Youssef Al Eissa, Vice President Educational Affairs. The event will commence on the 3<sup>rd</sup> of April, 2012 and will be held simultaneously in the three campuses of the university (Riyadh, Jeddah and Al Ahsa), during which 97 research papers will be presented in addition to the 27 artworks representing students contributions and submissions to the 3<sup>rd</sup> Scientific Conference of Higher Education Students which will be held in Al Khobar on 30 April 2012. Activities include poster and oral presentations, in addition to distribution of awards for the best students. The main objective of this event is to encourage and strengthen, as well as creating conducive environment for supporting students' research and their extra-curricular activities. With an overwhelming 125 (98 scientific research, 24 arts and 3 films) submitted research entries coming from different colleges (in all regions) compares to 80 entries in the previous year and 27 for its inaugural year; statistically it shows how our students patronize and support this annual event.

We mainly address this event “by the students, from students, to students.”



**Professor Mohi Eldin Magzoub**

Chairman, Department of Medical Education

On behalf of the organizing and scientific committees for the Preparatory Meeting for the 3rd Scientific Conference of Higher Education Students, I am so honored and privileged to write this foreword. This unique activity is organized following long and continuous preparation from all members of the organizing and scientific committees, and administrative support staff in the Deanship of Student Affairs, College of Medicine, College of Nursing, and College of Applied Medical Sciences. This event represents an example of team-work and collaborative effort as well as consolidation of inter-professional learning which is emphasized in this University to help students from different professions to learn together, to work together later in their professional life.

Special thanks and appreciation to all the students who submitted their excellent abstracts to this meeting, for without them this event would not even exist. Utmost appreciation and thanks also to all the faculty members who closely supervised students throughout the research journey of students derived from a simple idea to a full manuscript.



## Organizing Committee Members

**Prof. Ali Al Tuwaijiry, Dean, Student Affairs-KSAU-HS (Chairman)**

**Dr. Mohamed Al Moamary, Assistant Vice President, Educational Affairs KSAU-HS**

**Dr. Tagwa Y. Omer, Dean, Dean, College of Nursing-Jeddah**

**Dr. Elham Al Ateeq, Dean, College of Nursing Al Ahsa, KSAU-HS**

**Dr. Ahmad Alamry, Associate Dean, Academic Affairs, College of Public Health and Health Informatics, KSAU-HS**

**Dr. Ahmed Al Rumayyan, Associate Dean, Academic & Student Affairs, COM-R, KSAU-HS**

**Dr Sattam Lingawi, Associate Dean, College of Medicine-Jeddah**

**Dr. Mohammad Alkhozim, Associate Dean, College of Applied Medical Sciences-Riyadh**

**Prof. Youbria El Sayed, Associate Dean, Academic Affairs, College of Nursing- Riyadh**

**Dr. Abdulrahman Al Fayez, Dean, Postgraduate & Academic Affairs- Riyadh**

**Dr. Abdulmohsen Al Kushi, Associate Dean, University Pre-professional Program**

**Dr. Ibrahim Al Beayez, Supervisor General, University Relation & Media**

## 3<sup>rd</sup> CPSMS Scientific Committee Members

**Prof. Mohi Eldin Magzoub, Chairman, Department of Medical Education**

**Dr. Hanan Kadry, Associate Dean, College of Medicine, Riyadh, Female Section**

**Prof. Youbria El Sayed, Associate Dean, Academic Affairs, College of Nursing- Riyadh**

**Prof. Khairia Al Sawi, Associate Dean, Clinical Affairs, College of Nursing - Al Ahsaa**

**Prof. Ahmed Abu Shamlah, Head of Basic Sciences Department, COM - Jeddah**

**Prof. Abdullah Al Saiari, College of Medicine - Riyadh**

**Prof. Ali Karar Othman, College of Applied Medical Sciences - Riyadh**

**Dr. Mutasem Badri, Associate Professor, Pre-professional Program**

**Dr. Yasin Al Arabi, Associate Professor, COM - Riyadh**

**Dr. Dr. Fayez Alhejaili, Director, Postgraduate & Academic Affairs- Riyadh**

**Dr. Abeer Al Eisawi, Assistant Professor, COM - Jeddah**

**Dr. Amer Omair, Lecturer, Medical Education, COM - Riyadh**

**Dr. Suhail A. Al-Saleh, Assistant Professor of Pediatrics COM Riyadh**

**Dr. Mohammed Al Dubayee, Assistant Professor of Pediatrics COM Riyadh**

**Dr. Manal Bawazeer, Consultant general pediatric KAMC**

**Dr. Wesam Talal Abuznadah, Assistant Professor, King Abdulaziz Medical City-Jeddah**

**Dr. Amel Abouelfetoh CON Al Hassa**

## Scientific Schedule of the event (Riyadh)

TIME	RESEARCH TOPIC	PRESENTER
08:00 – 08:10	Introduction-Welcome	Professor Magzoub
08:10 – 08:20	Opinions of physicians on withholding and withdrawing life support utilizing a hypothetical scenario	Yousef Al Jathlany Riyadh-COM-Undergraduate
08:20 – 08:30	Effect of cinacalcet treatment on bone disease in dialysis patients	Turki Al Katherly Riyadh-COM-Undergraduate
08:30 – 08:40	Student perception toward program evaluation of faculty in King Saud Bin Abdulaziz University for Health Sciences	Hani Al Shehri Riyadh-COM-undergraduate
08:40 – 08:50	Assessment of Saudi Emergency Medical Services (EMS) personnel experience with acute stroke: On-scene stroke identification, triaging and dispatch of acute stroke patients	Emad Al Thubaity Riyadh-COM-undergraduate
08:50 – 09:00	Reasoning in postgraduate emergency medicine, Is a program needed?	Maytha Al Yahyah Riyadh-COM-Masters in Medical Education
09:00 – 09:15	Coffee Break- Poster Round	
09:15 – 09:25	Is CME effective in improving physicians' knowledge? Second order systematic review	Mohammad Al Onazi Riyadh-COM-Masters in Medical Education
09:25 – 09:35	Blood donation attitudes and practices among hospital staff in Saudi Arabia	Fahda Al Asraj Riyadh-CON
09:35 – 09:45	A retrospective study: Troponin as a diagnostic tool to predict septic shock outcome for patients in the ICU	Saja Al Ibrahim Riyadh-CON
09:45 – 9:55	Fasting blood glucose as an indicator of long term glycemic control as compared with estimated average blood glucose derived from HbA1c	Nabeel Al Zahrani Riyadh-CAMS
09:55 – 10:05	The beliefs and attitudes of paramedics to pre-hospital thrombolysis	Qais Al Rashidi Riyadh-CAMS
10:05 - 10:15	Hajj 2011: A unique learning experience for final year paramedics	Saad Al Suwaidan Riyadh-CAMS
10:15 – 10:25	Implementation of Computerized Physician Order Entry (CPOE) with Clinical Decision Support (CDS) features in Riyadh hospitals to improve quality of information	Mariam Al Mutairi College of Public Health Masters Program
10:25 – 10:40	Coffee Break- Poster Round	
10:40 – 10:50	Prevalence of visual impairment among secondary school male students in Riyadh 2012	Naif Al Maneef Riyadh-COM-KFMC
10:50 – 11:00	Pattern of analgesic usage and knowledge of side effects among adolescents female students, Riyadh, KSA.	Noran Al Essa Riyadh-COM-KFMC
11:00 – 11:10	Relationship between second-hand smoking and respiratory dysfunction among male secondary school students in Riyadh 2012	Muhanad Al Gadheeb Riyadh-COM-KFMC
11:10 – 11:20	Intracranial calcifications, microcephaly, and seizure: If not congenital infection, what could it be?	Ruqaiah Al Tassan Riyadh-PGME
11:20 – 11:30	Higher EEG alpha frequencies observed among the better-performing first-year male medical students	Ahmad Abulaban Riyadh-PGME
11:30 – 12:00	Final remarks and prizes announcements	Final remarks and prizes announcements Prof. Tuwajjri/ Guests

## A- Riyadh College of Medicine Undergraduate

### A - 01

#### Study on the practices and knowledge of physicians in prescribing antibiotics in KF-NGH

*Dr. Abdullah Al Alwan, Dr. Salih Bin Salih*

**Introduction:** Antimicrobial resistance is resistance of a microorganism to an antimicrobial medicine to which it was previously sensitive. WHO Finding ways to counteract or at least minimize this growing dilemma is important for patient's safety as it showed that Resistance results in increased hospital stay, costs, morbidity and mortality. (1,2) This study is implemented to assess physicians knowledge on antimicrobial resistance and there common prescribing methods of antibiotics at King Fahad National Guard Hospital at King Abdulaziz Medical City, Riyadh, Saudi Arabia.

**Methods:** A cross-sectional Study of physicians at the KFH, 100 Physicians were targeted. Eligible physicians included. All levels of staff (intern to consultant) from Departments of Anesthesia & Intensive care, Internal medicine, Surgery, obstetrics& gynecology and emergency medicine, Pediatrics and Family medicine. Other medical staff were excluded and those who didn't complete the survey

**Results:** 200 questionnaires were distributed, 24 returned and completed with a (Response rate of 12%) all physicians said they didn't have extra training in microbiology/infectious disease.

(54%) of the physicians considered antibiotic resistance to be an extremely important global problem but lesser in NGH (37.5%) Factors identified as important in producing resistance included widespread use of antibiotics (95.8%), inappropriate empiric choices (79.2%) and Inadequate hand-washing (70.8%).the Use of broad spectrum antibiotics was not considered an important risk factor for microbial resistance. The most useful interventions included institutional specific antibiotic guidelines (70%) and ongoing educational programs on appropriate antibiotic use (89%).while the least was antimicrobial cycling (20%) the antibiotic choice was determined by about close percentages on all given factors of availability of drugs (33%) and patient State (37%) and Knowledge of local antibiotic resistant pattern(29%). only 45% said they will de-escalate to a narrow-spectrum antibiotic if culture report shows sensitivity to it. At the end (62%) of participants said there current knowledge on antibiotic resistance was average and about 90% are aware of the need for a refresh course.

**Discussion and Conclusion:** The general practice of the physicians doesn't represent the high level of awareness So national guidelines are needed and also educating and Campaign.

## A - 02

### Effects of physician appearance on patients

*Dr. Abdullah Al Turki, Dr. Ali Al Farhan*

**Introduction:** Patients are affected by their physician's appearance, that appearance can affect the confidence, trust and communication of the patient to his or her doctor, hence the consultation outcome. To my knowledge there are no previous studies done in the Kingdom of Saudi Arabia on the affect of the physicians appearance on the patients, In my research I will concentrate on the affect of doctor's appearance especially his\her dress, whether wearing our national dress, western clothes, scrub suit and/or white coat. And for our female colleagues I would like to study the affect of the veil (borgae) on the male or female patient's confidence. The affect of physician's nationality, personnel hygiene and the overall appearance will be evaluated.

**METHODS:** A cross-sectional descriptive study using an Arabic questionnaire methodology was conducted of patients and visitors in the waiting room of the family medicine outpatient clinics. Respondents were not just asked questions About their preference for physician dress as well as their trust and willingness to discuss sensitive issues but they were asked also about some related things to the physicians like his clinic.

**RESULTS:** One hundred and sixty six respondents with a mean age of 38.29 years were enrolled; 44.6 were men, and 53.6 were women. Their family income was (35.5%) had an income less than 5000SR. and (59.6%) of the respondents had less than high school education certificate. On all questions regarding physician dress style preferences, respondents significantly favored the traditional Saudi clothes in discussing their psychological and personal issues (42.8%), followed by surgical scrubs and white coat (21.7%), and then the participants who didn't care about the attire (20.5%). About questions talking about the trust and the better diagnosis and treatment they prefer traditional Saudi clothes (trust=31.3% and diagnosis=27.1%) it was almost equal to participants preferring surgical scrub and white coat (trust=30.1% and diagnosis=26.5%). In question asking participants which do they prefer male or female gender to treat them (58.1%) of male participants prefer male doctors where is (47.2%) of female preferred female doctors. in another hand when participants were asked about age of physicians (34.9%) responded that they prefer their physicians ages to be between 50 and 60 years, while 29.5% of them preferred physicians who are between 40 and 50 years. When respondents were asked about gender of their physician they prefer (38%) preferred male doctors where is (34.9%) said it doesn't matter, for the female doctor Islamic dress (54.2%) said it doesn't matter where is (29.5%) preferred doctor wearing burgue and nigab, another question asked if doctor nationality effect your trust on him (64.5%) answered that it doesn't matter where is (30.7%) said it increase their trust. Two of the questions were talking about personal appearance and hygiene most participants agreed that these should be taking care of (appearance=69.3% and hygiene=80.7%). Another question was asking should

doctor wear expensive thing (68.7%) answered it doesn't matter where is (16.3%) disagreed. Another question was talking about eyeglasses wearing and their effect on participants trust (78.3%) answered it doesn't matter where is (10.8%) disagree. Last question was talking about doctors should take care of their clinic appearance (80.7%) said they agree where is (19.3%) said it doesn't matter.

**Discussion and Conclusion:** Respondents overwhelmingly favor physicians in traditional Saudi clothes especially when they discuss their personal and psychological issues. Where is participants preferred their physicians to be in good appearance and hygiene without the need to buy expensive things, in relating to male participants most of them preferred to be seen by male doctor and for female patients they also prefer to be seen by female physician, about wearing eyeglasses and wearing veil (borgae) or hijab participants replied it doesn't matter.

### A - 03

## Factors influencing the career choice among Saudi emergency medicine residents and practitioners

*Dr. Abdullah Al Zahrani, Dr. Nadia Al Attas*

Which specialty will you choose?" This is one of the earliest and most critical decisions in every doctor's career. Every specialty differs in its clinical settings, patient population and health status, skills requirements, and even physician's personality. Such a critical decision about the choice of specialty should depend on enough knowledge and understanding of the work type, environment, and requirements. Medical students do not spend adequate time during their clinical rotations to see the full picture of what it takes or requires to practice in any particular specialty. Choosing the wrong specialty would only be realized when the practitioner's expectations do not match the reality of working in that particular field. Consequently, this may result in a decreased level of satisfaction and commitment, a change in specialty or career, and it may result in a number of negative behaviors that could ultimately endanger patient safety.

International medical education systems especially in developed countries have started focusing on finding and applying proper modalities for guiding and educating graduating students in making informed decisions when choosing a specialty. The Association of American Medical Colleges (AAMC) in the US has developed a program called Careers in Medicine which is a career planning program designed to help medical students choose a specialty and select and apply to a residency program based on thorough studying of each specialty requirements in terms of aspects such as skills, knowledge, interest, and personality.

Many international studies have investigated and identified a pool of factors and variables influencing the application to major residency specialties. Studies have reported the potential for high income, status among colleagues, a stable/secure future, a focus on urgent care, and the ability to appreciate immediate results of intervention as influencing factors in

choosing surgery. In Internal Medicine, factors such as the intellectual challenge, availability of teaching during their rotation, and the continuity of care were identified as influencing factors. In Family Medicine (FM), early exposure to FM experiences, having a role model, the diverse nature of the work, the long term relationship with the patient, and a sense of social commitment and promoting health influenced a career choice in this field.

#### A - 04

### Negative ethical behaviors in hospitals- How prevalent are they perceived to be?

Dr. Ahmed Nawwab, Prof. Abdullah Al Sayyari

**Introduction:** To assess the frequency of negative ethical behavior in hospitals in Saudi Arabia as perceived by doctors and nurses and to investigate if this perception is influenced by age, gender, nationality, experience, profession, region, and specialty.

**Methods:** This is a cross-sectional self-administered survey-based study. Respondents were chosen randomly among medical staff, medical residents and nurses in 5 medical specialties in four hospitals. Respondents were asked to assess how commonly they witness 18 "negative" ethical scenarios in their workplace. The scenarios covered areas of 'respect for persons', "inter-professional relationships" and "empathy" with patient. They were asked to rate their agreement with occurrence according to the following 4-scale scoring system (1) completely agree (2) agree (3) disagree (4) completely disagree Data were analyzed using descriptive statistics (frequency distribution and percentages). Chi square was used to compare proportions and percentages of responses. ANOVA to compare means between groups and assess the effect of age, gender, nationality, experience, profession, region, and specialty.

**Results:** Three hundred and seventy respondents (27.8% medical staff, 44.9% residents and 25.1% nurses) were included. Of these, 52.7 % worked in Medicine, 18.2 % in Surgery, 5.4 % in Obstetrics & Gynecology, 12.1% in Psychiatry and 10.9 % in Pediatrics. The mean age was 32.4 years (+/- 7.7)), males constituted 56.3 % of the respondents. The mean duration on the job was 8.3 years (+/-7.5). Of all responses 42.9% agreed that of sub-ethical behavior exist; 38.5% for "respect for persons" domain, 45.7% for "empathy" domain and 45.9% for "professionalism" domain. Younger doctors, more than older doctors and more residents than tenured medical staff perceived suboptimal ethical behavior in the areas of autonomy ( $p=0.004$ ), confidentiality ( $p=0.006$ ) and empathy ( $p=0.001$ ). Psychiatrists had the highest agreement level and physicians lowest agreement level with the negative ethical statements in the survey especially in the "respect for persons" domain ( $p=0.004$ ). Duration of work of < 10 years was associated with higher perception of poor ethical behavior in all 3 domains ( $p<0.02$ ) Almost 3 times as many non-Saudi doctors as Saudi doctors felt there is coercion to write inaccurate reports ( $p=0.004$ ). More MOH (Ministry of Health) doctors perceive coercion to write inaccurate reports ( $p=0.007$ ) and inter-consultant criticism ( $p=0.007$ ) than their counterparts in KAMC (King Abdulaziz Medical City).

**Discussion and Conclusion:** Perception of the occurrence of negative ethical behavior in healthcare setting is common. This is seen more commonly in residents, younger respondents and with less duration on the job. The most commonly seen negative behavior was “informed consent not properly obtained” and the least seen was “doctors expect gifts from patients”. More psychiatrists, medical residents and those who were on the job < 6 years, report the occurrence of negative ethical behavior. There was less perception of negative ethical behavior with increasing duration on the job.

## A - 05

### Assessment of vitamin E and redox states of glutathione as predictive biochemical markers for preeclampsia

*Dr. Albarra Al Fudhail, Dr. Imran Siddiqui*

**Introduction:** It is hypothesized that the pathogenesis of preeclampsia is mediated by increased oxidative stress via endothelial dysfunction. Glutathione and vitamin E are known biological antioxidants utilized by the body to alleviate the harmful effect of oxidative stress. Therefore, their values were expected to be altered in preeclampsia and thus they were investigated in preeclamptic women in this study.

The objective of this study was to compare the value of glutathione and vitamin E in women with preeclampsia to that of women with normal pregnancies.

**Method:** Blood samples were collected from 40 preeclamptic pregnant females and 80 normal pregnant females serving as control group at the Department of Obstetrics and Gynecology at King Abdulaziz Medical City. Serum level of glutathione and vitamin E were measured for both groups.

**Results:** The measured level of glutathione and vitamin E were  $588.2 \pm 291.8 \mu\text{mol/L}$  and  $34.6 \pm 20.5 \mu\text{mol/L}$  respectively in control group and  $453.9 \pm 294.4 \mu\text{mol/L}$  and  $29.1 \pm 11 \mu\text{mol/L}$  respectively in preeclampsia group. The p-value for the glutathione and vitamin E levels were 0.01 and .008 respectively and the  $R^2$  value for the correlation analysis of mean arterial pressure-glutathione plot and mean arterial pressure-vitamin E plot in preeclampsia group were .1267 and .038 respectively while their counterparts in the control group were negligible.

**Discussion and Conclusion:** There is a significant association between reduced levels of glutathione and vitamin E in the serum and increase risk of preeclampsia. More assessment of other oxidative markers as well as correlating them with other parameters in preeclampsia such as level of protein in urine and level of liver enzymes is needed.

## A – 06

### Characteristics of child with abusive head injury who presented to E.R during the period of 20052010-

*Dr. Amjad Badawood, Dr. Majed Al Eissa*

**Introduction:** Abusive head injury is one of the most common causes of morbidity and mortality in physically abused infants. Effective prevention of this by knowing of risk factors. We want also to know the common sings, symptoms and finding during their presentation to E.R. as well as long term squeal.

**Methods:** We collect the data retro prospectively of all child with abusive head injury who refer to scan team at king Abdul Aziz medical city and who met the inclusion criteria during the last 5 years(20052010-).

**Result:** During the study period a total of 30 cases were referred to scan team as abusive head injury. Mean age of child was 29.7 month. The most common presented symptoms were vomiting in 53%, Altered mental status in 47% and seizure 37% while the common physical and radiological findings were Sub Dural hematoma 47%, skull fracture 37% and bilateral retinal hemorrhage 30%. The common risk factors predispose to abuse were poverty 37%, chronic medical illness 30%, and polygamy 30%. The long-term sequel found in 67% of cases with mortality rate of 27%.

**Discussion and Conclusion:** Child abuse is not un common problems in our society, Child abuse need more extensive studies because of its short and long tem impact on both child and health care system especially it is not naturally occurrence and can be prevented. Mortality and morbidity is very high among abusive head injury so we need to address this issues since it is preventable.

## A - 07

### Community and nosocomial acquired severe sepsis and septic shock in patients admitted to a tertiary care intensive care in King Abdulaziz Medical City, etiology and outcome

*Dr. Ayman Tilmisani, Dr. Salim Baharoon*

**Introduction:** Sepsis syndrome is a major worldwide cause of morbidity and mortality. Data on national estimate on the incidence of community and health related sepsis in Saudi Arabia hospitals is lacking.

**Method:** A retrospective study that evaluates all cases admitted to intensive care unit in King Fahad National Guard fulfilling diagnostic criteria of Sever Sepsis and Septic Shock over 8 months.

**Results:** DA total number of 96 patients fulfilled the enrollment criteria of sever sepsis and septic shock) which represent 15% of the total number of admissions during the study period. The mean age was 57.41 (St D 21.036). Healthcare associated infections leading to sever sepsis and septic shock occurred in 60% of this patient population while community infections represent 40%. Majority infections acquired in the hospital occurred in medical



wards and intensive care units 27% and 21% respectively. At least one co morbid condition was present in 94% of the sample patients with cardiovascular disease and diabetes being the most frequently encountered in 40% and 33% respectively Overall mortality was 58 %. Of those patients who died, 66% had health care related infections and 34% had community infections while 56% of those who survived were having community infections and 44% were with health care related infections.

**Discussion and Conclusion:** Both community and health care acquired infections carry a very high mortality. Measures to further evaluate the apparently high rate of health facility acquired infections are needed.

## A - 08

### Medical Students Life Style

*Dr. Faisal Al Malki, Dr. Francis Michael Seefeldt*

**Introduction:** Lifestyle has a very important impact on our lives in terms of food or eating habits, sports, physical activities, social activities, smoking, and sleeping time. **Method:** For this purpose, the study was conducted based on a questionnaire given to KSAU-HS COM Batches 4, 5, and 6 about their lifestyle. The questionnaire is entitled Medical Students' Lifestyle.

**Results:** After questionnaires were completed and collected, all data were fed into the SPSS statistical analysis software for analysis. The p values for .05 level of significance were identified by using chi-square tests.

**Discussion and Conclusion:** Our study suggests that poor eating habits can have negative effects. It also suggests a relation between age and GPA.

## A - 09

### Parents Perspective on Non Urgent Operation

*Dr. Haider Al Djani, Dr. Mohammed Zamakhshary*

**Introduction:** To determine the parents perspectives on waiting for non-urgent operations, and to determine the impact of waiting for non-urgent surgery on life style (for the child and parents). Parents perspectives on non-urgent operation were measured by a cross-sectional methods. A descriptive survey was conducted of families with a child waiting for a non-urgent operation.

**Method:** Setting: A King Abdulaziz Medical City in Riyadh in pediatric surgery department. **Subjects:** Parents whose children (0 – 14 years old) need to have surgery that is not considered medically urgent. **Main outcome measures:** Parents' concerns and idea about waiting for their child's operation, how it was affecting the child and family life style, how urgent they felt their child need for surgery, and how long they would wait for the surgery, and the level of education of the parents was measured to elicit if their level education can affect their perception.

**Results:** Of 113 patients waiting for non- urgent pediatric operations at the time of the

survey. 31.51% waited between 212- weeks and 53.11 % waited between 1348- and 26% waited between 4995- weeks and 21.47% waited between 96- 264 weeks. We found that the most of parents have high school or diploma, and 45% they increase the care of their diseased child and 25% noticed jealous behavior from their other children.

**Discussion and Conclusion:** No significant results in parents perspectives among these 8 types of operation, The only significant results in parents perspectives is waiting time and complications. No matter if the parents are educated or not they will have the same negative perception for non urgent operation and they consider it emotionally stressful and will affect their child life style negatively.

## A - 10

### The association between patients' level of awareness and their adherence to physical therapy rehabilitation program in stroke

*Dr. Hazim Al Otaibi, Dr. Mohammad Al Jumah*

**Introduction:** The purpose of the study is to find the association between the patients' level of awareness with the importance of physiotherapy program in the management of stroke and their adherence to that program. The idea stemmed from that stroke is a common problem worldwide and in Saudi Arabia[1,2] and the disability left behind it is common, hence the establishment of a continuous rehabilitation program is vital [3]. Since the rehabilitation program is chronic, the adherence is very important and variable among patients. We assume awareness enhances the adherence and fosters the whole management program. The objectives of the study are: 1- To find out the association between the level of patients awareness and their adherence to rehabilitation program in the management of stroke. 2- To shed light on the possible causes of adherence and the variables that might affect it either negatively or positively. 3- Analyze the causes of any possible gap and suggest solutions for them. **Methods:** Arabic questionnaires were distributed to a sample of 30 adult

patients with stroke who receive physiotherapy in KAMC Riyadh and the respondents answered the questions in meetings with the second investigator. The questionnaire was close-ended type which used direct questions to assess the main objective. **Results:** The mean age of participants was 60 years for both sexes, 19 (63%) males and 11 females (37%) responded, self report was 23 patients (63.3%) whereas others report was 7 (23.4%), 25 (83%) patients received strengthening exercises and gait training. Most patients, 26 (86.7%) saw that their awareness enhances their adherence.

**Discussion and Conclusion:** There is an overwhelming majority of patients, (86.7%) saw that their awareness affects their adherence positively and more aware patients adhere to the program and the assumption we started with was true.

**A - 11****Frequency of stroke among sickle cell disease patients in KFNGH***Dr. Ibraheem Al Yami, Dr. Khalid Al Jamaan*

**Introduction:** Stroke (defined as an acute, clinically evident neurologic event) a serious and recurrent complication of sickle cell disease but on the other hand it can be prevented. Cerebrovascular disease is one of the major causes of morbidity and mortality in patients with sickle cell disease. It may present as cerebral infarction or cerebral hemorrhage. We studied a sample of sickle cell patients in king Fahad National Guard Hospital (KFNGH) with the aim of determining stroke prevalence, clinical presentation, imaging finding and management practices.

**Methods:** Sickle cell disease patients in KFNGH were screened to identify those who developed stroke. Stroke was diagnosed clinically and confirmed where possible with brain computerized tomography. Patient charts were reviewed to determine management practices were given.

**Results:** One hundred thirty one patients with different age groups were included during study period (January 2004 to January 2009). Three cases of stroke were identified giving a stroke prevalence of 2, 29. Two patients had lacunar infarcts while one had hemorrhagic stroke. Clinical presentation of stroke was classic. Only one patient (47 years) received aspirin and hydroxyuria as Stroke prophylaxis.

**Discussion and Conclusion:** The prevalence of stroke among sicklers at KFNGH is 2.29. We suggest conducting the study in other provinces in the kingdom where the disease is epidemic which provide ideal opportunity for the study of natural history of this condition.

**A - 12****The Characteristics of Depressive Symptoms in Saudi Medical Students***Dr. Jamal Al Jamal, Dr. Imran Siddiqui*

**Introduction:** To investigate the characteristics of depressive symptoms among Saudi medical students, and to know how common is the problem among the medical students

**Methods:** Students in basic sciences( first and second years) and clinical (third and fourth) levels in KSAU-HS College of medicine were asked participate in this study and to complete the BDI questionnaire.

**Results:** Total of 79 students were participating in this study 30.3% were from batch 2 ( fourth level ) 21.5% from batch 3 ( third year), 29.1% from batch 4 ( second year ) and 18.9% from batch 5 (first year).

49 were depressed (62%) mild depression n=24 ( 30.4% ), moderate depression n=22 (27.8%) and severe depression n=3 ( 3.8%)

**Discussion and Conclusion:** we have a high prevalence of depression among medical students and the characteristics of depression symptoms and this could help us to prepare the students and faculty members to such problems and give a special care, as well, to find and develop an appropriate programs to overcome it

### A - 13

#### Tuberculosis in intensive care unit

*Dr. Jamil Serdar, Dr. Yaseen Arabi*

**Introduction:** Tuberculosis is an endemic disease worldwide, with one third of the world's population estimated to be infected with Mycobacterium Tuberculosis. More than 9 million new cases occurred in 1990, resulting in more than 2 million deaths. Tuberculosis in all its forms has always been a disease of the developing world. Saudi Arabia is an intermediate prevalence area for tuberculosis, probably because of its level of development. Tuberculosis requiring intensive care admission account for 13% of all tuberculosis cases, yet life-threatening presentations are rarely addressed in medical literature. The aim of this study to examine the presentation and the outcome of patients diagnosed with active TB after Admission in ICU. Find the possible causes of delaying diagnosis.

**Methods:** The study is seven years retrospective chart review of all patients with active pulmonary tuberculosis admitted to critical care unit in King Fahad National Guard hospital from Jan 2004- Nov 2010.

**Result:** A total of 31 TB patients (20 males 64.5%, 11 females 35.5%) with mean age 61 admitted to ICU were included. 90.3% were Saudi, 9.7% Non Saudi, with mean of stay in ICU 10.7 (244-). 74.2% with pulmonary TB, 19.4% military TB, and 3.2% pleural TB. Patients' outcomes were as follow 64.5% got worse. Death was among 64.5% (20 patients), 50% (10 patients) of them in ICU, 60% (6 patients) due to TB. The mean duration between getting the sample and starting treatment 2.39 days (rang 14-) and the mean duration between admission and diagnosis 9.16 days (rang 238-).

**Discussion and Conclusion:** In emerging nations infections such as tuberculosis requiring intensive care are not uncommon. Clinician awareness of the symptomatology and contributory factors of the disease is vital. Diagnoses may be challenged by atypical clinical presentations along with the lack of sensitive and rapid diagnostic tests. Early diagnosis of tuberculosis can reduce the health burden and mortality among an expanded stratum of the population. As was seen in this study, late or missed diagnoses resulting in no treated cases are contributory to unnecessary morbidity and mortality. It will be important to develop and utilize novel, more sensitive and specific tests. Considering the serious impact of missed or delayed diagnoses and the risk of transmission to health care professionals, clinicians must maintain a high level of suspicion and a low threshold for respiratory isolation to combat tuberculosis.

### A- 14

#### Medication adherence by patients with type 2 diabetes in the setting of polypharmacy

*Dr. Khaled Al Rashed, Dr. Yousef Al Saleh*

**Introduction:** Type 2 diabetes is a major and rising public health problem in Saudi Arabia. The prevalence of type 2 DM in Saudi Arabia is one of the highest in the world. Previous

studies and research focused primarily on adherence to hypoglycemic medicine, but few studies were concerned with adherence in polypharmacy and those few studies were concerned about polypharmacy in other diseases, while the study focuses on medication adherence in patients with type 2 diabetes in the setting of polypharmacy. The study tests the specific hypothesis that self reported adherence per medicine would decline with increasing number of concurrently prescribed diabetes-related medicines. To study the effect of polypharmacy on adherence to medication by patients with type 2 diabetes mellitus.

**Method:** This is a survey-based cross-sectional study involving a total of 150 randomly selected patients with type 2 diabetes followed up at a specialist diabetic clinic at King Abdul-Aziz Medical City (KAMC)-Riyadh and who meet the inclusion criteria. The patients were asked to respond to a questionnaire designed to investigate self reported degree of adherence to pharmacological and non pharmacological diabetic therapies. The study was done in the specialist outpatient diabetic clinic at King Abdul-Aziz Medical City (KAMC) in Riyadh, Saudi Arabia

**Results:** A total of 78% of respondents were females and 22% were males. Mean age of respondents was 50.09 years. 38.8% of participants had bachelor degree, 32.5% of the participants had high school degree, 15% of the participants had primary degree, 11.3% of the participants had elementary degree, 1.3% of the participants had a master or a PhD degree and 1.3% of the participants had no education. 70% of the patients have both hypertension and dyslipidemia, 12.5% of the patients have other medical conditions, 8.8% the patients have hypertension and 8.8% the patients have dyslipidemia. 63.8% of the patients gain less than 5000 Saudi riyals, 31.3% of the patients gain (5000-10000- Saudi riyals) and 5% of the patients gain more than 10000 Saudi riyals. 32.5% of the patients are employed, 27.5% of the patients are retired, 25% are unemployed and 15% of the patients are students.

## A - 15

### Assessing health-related quality of life of pediatric patients awaiting surgical repair of inguinal hernia

*Dr. Loay Al Ismail, Dr. Mohammed Zamakhshary*

**Introduction:** One of the most common surgical procedures done in general surgery is inguinal hernia repair, with a prevalence of 1.7% for all ages. Inguinal hernias account for 75% of abdominal wall hernias, with a lifetime risk of 27% in men and 3% in women<sup>[1]</sup>. And due to the high prevalence there is a lengthy time delay for the procedure to take place, which might affect the patients' condition. To measure health-related quality of life of patients awaiting surgical correction of inguinal hernia.

**Method:** This study is a cross-sectional survey study to measure HRQoL of pediatric patients awaiting surgical repair of inguinal hernia. Carried out in King Fahad National Guard Hospital in Riyadh. Using generic PedsQL questionnaire. The sample size was 36 participants.

**Results:** The Response Rate was 29.5% with n=36, The means of the effect on the quality of life of the patients for each age group. Which shows the major effect lay in the age group

between 812- years with a mean of 81.46 %. Comparing dimension showed no significance except for the emotional mean between groups with a p-value of 0.062. We found that 25 percentiles had a waiting time of 4 months, 50 percentiles were waiting for 20 months, and 75 percentile had a waiting time of 33 months. The time delay means of different age groups when compared showed no significant p-value. Negative correlation was found between the time delay of surgery and the quality of life of the patients, most noticeably when comparing the total average with the time delay of patient's ages between 57-. Also in the emotional dimension of the same age group.

**Discussion and Conclusion:** Our data show no significant effect on quality of life of pediatric patients. And the result also showed that prolonged waiting time has mild effect on the child QOL especially school aged children. We also found out that the dimension most effected is the emotional rather than the physical aspect. Furthermore the effect on quality of life is most pronounced on the older age group children.

## A - 16

### A study on lipid profile in preeclampsia

*Dr. Majed Al Zahrani, Dr. Imran Siddiqui*

**Introduction:** Preeclampsia (PE), a multisystem, multifactorial disease targeted by endothelial damage which precedes the clinical diagnosis, is estimated to effect 58%- of all pregnancies (1). Dyslipidemia is common in PE and, via oxidation of susceptible lipids may contribute to

endothelial activation; we perviously reported that triglyceride and free fatty acids were already elevated in the frist and second trimesters in women who subsequently developed PE (8). Therefore, their values were expected to be altered in preeclampsia and thus they were investigated in preeclamptic women in this study. The objective of this study was to compare the level of serum cholesterol, Triglycerides, high-density lipoprotein HDL, low-density lipoprotein LDL, in preeclamptic and control subjects.

**Method:** Blood samples were collected from 40 preeclamptic pregnant females and 80 normal pregnant females serving as control group at the Department of Obstetrics and Gynecology at King Abdulaziz Medical City. serum cholesterol, Triglycerides, high-density lipoprotein HDL, low -density lipoprotein LDL were measured in preeclamptic and control group.

**Results:** The measured level of cholesterol (CHOL) , Triglycerides (TGA) , high-density lipoprotein (HDL) and low-density lipoprotein (LDL) were  $6.42 + 1.34$  mmol/l,  $2.46 + 0.86$  mmol/l,  $1.50 + 0.32$  mmol/l and  $2.84 + 1.01$  mmol/l respectively in control group and  $6.71 + 1.33$  mmol/l ,  $3.17 + 0.75$  mmol/l,  $1.48 + 0.36$  mmol/l and  $3.96 + 1.12$  mmol/l respectively in preeclampsia group. The p-value of cholesterol (CHOL), Triglycerides (TGA) , high-density lipoprotein (HDL) and low-density lipoprotein (LDL) were 0.19, 0.002, 0.31, and 0.25 respectively.

**Discussion and Conclusion:** There is a significant association between increase levels

of Triglycerides (TGA) in the serum and increase risk of preeclampsia with no significant association with other lipid profile in preeclampsia.

## A - 17

### Stroke awareness among Saudi population

*Dr. Mohammed Hafiz, Dr. Ali Al Khathaami*

**Introduction:** Stroke is a major health issue in Saudi Arabia and worldwide, Rushing to the hospital depends on a lot of factors including the awareness of stroke signs and symptoms along the belief of the public toward the treatment of stroke, the study assess the public awareness of warning stroke signs and its risk factors, and assess the public knowledge about available “clot busting” medication (t-PA) to reverse stroke related neurological deficit and its efficacy in relation to time of onset of stroke symptoms which will encourage the public to reach out for medical help as soon as possible as it assess the public awareness of importance of rushing to emergency room to catch up the “golden hours” to reverse stroke related deficit the study also identify different factors that predict stroke awareness among Saudi public and Identify sources of medical information among Saudi public.

**Methods:** This is a cross sectional survey, standardized questionnaire designed to collect data regarding the attitude, beliefs, actions and knowledge of our randomly selected adult subjects, who are Saudis residing in Saudi Arabia and speak Arabic as a native language. Participants were interviewed through a phone call.

**Results:** Among the 110 participants 16% (18) didn't know what the word stroke means, 60% gave the right definition, and 24% described it as brain death, non of the 110 participants was diagnosed with stroke, 33% did not know a single sign or symptom of stroke, 2% as no symptoms, 29% as motor weakness and 3 % as sensory symptoms, 2 % seizures, 12% headache, 29% loss of consciousness, 14% others. 38% report going to the hospital will be the first action to take, 25% will call the ambulance and 14% didn't know what to do and 5% reported that they will perform basic life sport then call the ambulance., 43% did not hear about the antithrombotic TPA therapy, and 15% were not sure and 24 % heard about it. 58% believe that they can avoid stroke, 13% were not sure and 14% said we can't avoid stroke.

**Discussion and Conclusion:** In comparison to the US population the level of awareness, and the first action to take in case of stroke in Saudi population is lower, but comparing to the gulf region Saudi population showed increased level of awareness,the study showed that we need to improve the level of awareness of stroke in general population by using the appropriate channels (TV, Internet, etc).

## A - 18

### Awareness of patients admitted to King Fahad National Guard Hospital (KFNGH) in Riyadh about their rights

*Dr. Saud Al Shammery, Dr. Hamdan Al Jahdali*

**Introduction:** Information about the patient's knowledge regarding their right as patients in health care system is very crucial and detrimental. The emphasis in patient's right is varies considerably from place to another. National Guard health affairs system encourages the culture of educating patient and health care professionals about patient's right. However how much are the patients aware about their right is never been studied in our community. The aim of this study to explore whether the patients aware about their right as patient and what are the factors influencing such awareness.

**Methods:** A cross sectional questionnaires study that developed by the investigators and based on similar published studies. These questionnaires tested initially on 30 patients for correction of any vagueness, or ambiguity. These questionnaires divided to 5 sections. One section is about demographic data, others are about knowledge of the patients about their rights, access and sources to information to know about their rights, and respect of their right in particularly privacy, confidentiality and information.

**Results:** Total patients recruited 130 patients, 60% female, age  $3615 \pm$  years, 60% of the patients have more than one admission to the hospital. The majorities of patients are aware about their right (79%), however 39% did not know about existing patient's right booklet. Only 66% of the patient met directly with the treating consultant, 74% believe that the medical team has the right to see and discuss their medical condition while 26% believe this should done by the treating consultant. The majority of the patients 70% felt that they have the right to know the treating team names. 79% of the patients believe their permission need to take when conducted any procedure and 84% felt that accept the admission means acceptance of all types of medical procedure but after explanation of the nature of the work, however 91% know their diagnosed disease directly from the physician while 22% of the patient felt that they do not have the right to call the physician again after departure from the patient's room. In case of do not share in any study or medical research this may impact negatively on medical services 39% of the patients believe of this. Majorities of the patients (91%) felt that have the right to request and discuss their cases in privacy place. Patients know their rights were taken through physician (28%) while (33%) know their rights from the patient right booklet (15%) from other source.

**Discussion and Conclusion:** This is the first study which examined the patient's knowledge and awareness about their right as patients. This study demonstrated that there is some kind of awareness in our patients about their right however, it also demonstrate that there a need to emphasis in this issue and make the patients more aware through their health care professionals, and make these information handy and available.



**A - 19****Effect of cinacalcet treatment on bone disease in dialysis patients**

*Dr. Turki Al Kathery, Prof. Abdullah Al Sayyari*

**Introduction:** Hyperparathyroidism is seen in most patients on hemodialysis. Control of hyperparathyroidism and calcium/phosphate metabolism has been based on combined treatment of vitamin D and phosphate binders. Failure rate to control hyperparathyroidism with this combined treatment can be as much as 2540%-. Recently, a new novel drug with unique action -Cinacalcet- which is good at controlling hyperparathyroidism without causing hypercalcemia has been developed.

This study was designed to assess the efficacy of Cinacalcet in controlling PTH level in hemodialysis patients with secondary hyperparathyroidism.

**Methods:** This is a longitudinal cohort study involving all the patients who meet the inclusion criteria. The patients acted as their own controls (pre and post Cinacalcet therapy). Parameters were recorded at baseline and 6 months after commencement of Cinacalcet therapy.

**Results:** Thirty patients were included (14 males and 16 females). The mean age was 49.9 ( $\pm 20$ ) years and the mean time on dialysis was 6.5 ( $\pm 3.4$ ) years. There were significant reduction in PTH (59.60%) and calcium (10.7%) ( p values 0.031 and 0.041 respectively) and reduction in phosphate (36.8%) and Ca/P product (38%) but these did not reach statistical levels. The hemoglobin level significantly increased by 10.6 % (p= 0.002).

**Discussion and Conclusion:** Cinacalcet led to significant reduction in PTH , Calcium and significant increase in hemoglobin. Cinacalcet provides an alternative to traditional treatment by vitamin D and phosphate binders.

**A - 20****Why medical students opt to study medicine**

*Dr. Turki Al Qarni, Dr. Hamdan Al Jahdali*

**Introduction:** Becoming a doctor is not an easy option. However it is not clear why student chose medicine as carrier. Some may be influenced by family members or by personal interest in science or by socioeconomic status of medical physicians or by many other personal factors .For best of our knowledge this issue never been studied in our society and I will be interesting to study. To investigate what are the factors influencing student to choose medicine as carrier.

**Method:** We developed a survey questionnaires about demographics data, parent education level and income. Personal data about student interest in science, high school final grade, influence of family members, social economic factors in students decision of choosing medicine as carrier. These questionnaires distributed initial among 30 student to test the questionnaires clarity, understandability, ambiguity and corrected accordingly. The final questionnaires distributed to all undergraduate students at king Saud bin Abdulaziz University for Health Science in Riyadh.

**Results:** A total of 244 male students responded. Age  $21.53 \pm$ , 91 % from Riyadh, 26% of the student post bachelor > s others from high school. Most of the student 61% from government school high schools. At least one member of the student was in health profession in 53%, father 35%, brother or sister or more than one in 19.6%, 8.9% and 11.6% respectively. Most of the student come from family with good income (> 20000SR/month) 58.5%. Studying others surrounding factors that may influence students to choose medicine revealed the choice is primarily influenced by student interest in science 75%, by good achievement in (one of top 10 in the class) high school 48%, family in 31%, media 22%, friend 22%. Other personal factors include student thinking medicine is prestigious 65%, Financial rewarding 70%, and employment almost guarantee 68%.

**Discussion and Conclusion:** This study offers insight into factors influencing medical student choices of medicine as a carrier which is peculiar to our populations.

## A - 21

### Exploring non-medical hospital employees' Cardio-pulmonary Basic Life Support (CPR-BLS) knowledge and skills

*Dr. Usamah Al Harbi, Prof. Margaret Elzubeir*

**Introduction:** Early initiation of cardio-pulmonary basic life support (CPR-BLS) improves the chances of successful resuscitation and survival. CPR-BLS is used extensively by medical staff in hospital settings but there is often a lack of CPR-BLS knowledge and skills among non-medical hospital staff. To determine the CPR-BLS knowledge and skills of non-medical employees at King Fahad National Guard Hospital at King Abdulaziz Medical City, Riyadh, Saudi Arabia.

**Method:** This was a cross sectional survey study using an anonymous researcher-designed questionnaire to evaluate the level of CPR-BLS knowledge and skills; awareness of its importance and perceived reasons for lack of knowledge regarding how to perform CPR-BLS in a convenience sample of non-medical hospital staff.

**Results:** The Response Rate was 35.9% after Out Of 64 subjects, 12 (18.75%) indicated they knew how to perform CPR-BLS while in fact (1.5%) had answered the clinical scenarios questions correctly. Only (17%) of respondents believed that non-medical hospital staff should perform CPR-BLS in an emergency situation when medical staffs are unavailable. Most respondents (82.8%) believed that CPR-BLS is for healthcare providers and it is a risky intervention.

**Discussion and Conclusion:** Most non-medical hospital staffs do not know how to perform CPR-BLS and do not perceive a need to learn how to do so. Anxieties about the risky nature of the task and not being part of respondents' job requirements were main reasons for not wishing to learn. Although study results are limited they provide some initial indications about necessary interventional and improvement initiatives for non-medical employees of King Fahad National Guard Hospital at King Abdulaziz Medical City, Riyadh, Saudi Arabia.

## A - 22

**Assessing the necessity of checking the liver profile in patients receiving statin*****Dr. Yaser Al Harthi, Dr. Mazen Ferwana***

**Introduction:** Cardiovascular disease (CVD) is the leading cause of death and a major cause of disability worldwide. Dyslipidemia is one of many risk factors that increase the risk of cardiovascular diseases as low density lipoprotein (LDL-C) cholesterol is the building blocks of atheromatous plaques that occlude the essential arteries to live. Statin is one of the most prescribed drugs to reduce LDL-C. A meta-analysis of randomized controlled trials shows that statins therapy decreases the incidence of major coronary and cerebrovascular events. As Some of patients on statin experienced mild elevation in aspartate aminotransferase (AST) and alanine aminotransferase (ALT) liver enzymes, most of clinician frequently measuring liver enzymes at three months interval. This retrospective (chart review) study was aimed to assess the need of frequent monitoring of ALT and AST liver enzymes in patient receiving statin with taking into consideration the age, sex, weight, and associated medical problems of the patient as well as types and doses of statin.

**Methods:** This study included 45 patients (23 male, 22 females) whose randomly selected out of 333 patients having dyslipidemia and came to cardiology department in King Fahad National Guard Hospital in Riyadh (KFNGH) between 2009 and 2010. Moreover, the medical records of each patient were reviewed and basic information like age, BMI, chronic diseases, type and dose of statin medication were recorded as well as ALT and AST liver enzyme at baseline (before starting statin medication) and at three months interval for four readings (almost 18 months).

**Results:** The mean age was 53.8 years for male and 60.45 years for female. According to co-morbid diseases, 73.3% of them were diabetic, 68.8% hypertensive and 44.5% were obese (BMI > 30).

In this study 29 patients (64.4%) were using Atorvastatin calcium (Lipitor), 14 patients (31%) were using Rosuvastatin (Crestor) and 2 patients (4.4%) were using Simvastatin (Zocor). In patients receiving Rosuvastatin (14 patients) and Simvastatin (2 patients), no abnormal increase in AST and ALT were noticed in all doses at three months interval for four readings as well as the differences in ALT and AST means at baseline and at three months interval for four readings were statistically not significant ( $p > 0.05$ ). In patient receiving Atorvastatin calcium (Lipitor), only one patient out of 29 patients (3.45%) experienced abnormal increase in either ALT or AST or both more than three times the upper limit, double fold the upper limit in 2 patients (6.9%) and few international units above the upper limit observed in 4 patients (8.8%). Moreover, in patients receiving Atorvastatin calcium the differences in ALT and AST at baseline and at the third and fourth readings were statistically significant ( $P < 0.05$ ).

**Discussion and Conclusion:** As per our results, 39 patients (86.6%) receiving statin had no increase in AST and ALT enzymes level by following their liver profile for about 18 months.

Specifically, ALT and AST levels were not exceeding the normal range in patient receiving Rosuvastatin and Simvastatin, while 20.68% (629/) of patients receiving Atorvastatin calcium (Lipitor) experienced transiently increases in ALT and AST levels above the normal range and again back to the normal range with successive visits. Finally, if the same results are found in large scale study this may change our clinical practice by limiting the frequent liver enzymes monitoring to high risk people as well as patients on Atorvastatin calcium (Lipitor).

## A - 23

### Factors associated with patients visit to emergency department for asthma therapy

*Dr. Yasser Al Zahrani, Dr. Hamdan Al Jahdali*

**Introduction:** Acute asthma attacks remain a frequent cause of emergency department (ED) visit and hospital admission. There are many factors that lead to patient visit to ED. These factors are different from one country to another. To best of our knowledge this issue never been studied in Saudi Arabia. The aim of this study is to identify what are these factors that lead to frequent use of the ED.

**Methods:** Across sectional survey of all patients who visit emergency room over 6 months period with bronchial asthma attacks. The following data were collected, demographic data, severity of asthma, asthma control in the preceding month, where and by whom the patients were treated, whether if received asthma education, training on how to use the device and the patients perception of different asthma medications, use, and benefit.

**Result:** Total patients recruited 251, 42% of them male, age range from 18 to 100 years (40.516±). Almost 50% of the patients have less than elementary school of teaching. The duration of asthma diagnosis before ED visit 159± months, , 72% of the patient mentioned they have a regular follow up with physician, 87% they are followed by primary health care, , 41% did not receive any education about asthma as a disease or how to use the device. Majority of the patient admitted that they do not take inhaled corticosteroid regularly (74%), 47% of the patient did not receive asthma treatment plan, 40% thought asthma medication are not safe for long term use, 31% thought it cause addiction, and 39% thought it loses its efficacy with long term use. The reason for emergency room visit in the majority of the patients was to receive bronchodilator, and oxygen 83% and 76% respectively. , Majority of the patients use MDI device for inhaled steroid delivery with no chamber.

**Discussion and Conclusion:** This study demonstrates that there are many pitfalls in the managements of bronchial asthma. These pitfalls include lack of appropriate asthma education, and appropriate teaching of how to use asthma device in delivering asthma medication. From this study we can conclude that emphasizing in asthma education is the corner stone in the management of bronchial asthma and avoiding frequent ED visit.

## A - 24

**Opinions of physicians on withholding and withdrawing life support utilizing a hypothetical scenario***Dr. Yousef Al Jathlany, Dr. Hasan Al Dorzi*

**Introduction:** End of life (EOL) decisions have become an important part of medical management and seem to be variable among various cultures. Little is known about the opinion of physicians working Saudi Arabia on EOL decisions.

**Methods:** This was a web-based survey of physicians working at 5 hospitals across Saudi Arabia and of medical students on their opinions of withholding and withdrawing of life support. The survey was made of three parts: general information, general questions about EOL care, and a case scenario of a patient with poor prognosis who deteriorates. The survey was validated and pilot studied and then forwarded to physicians. Many responses were rated using the 5 point Likert scale. Results were analyzed using SPSS.

**Results:** There were 167 respondents: age  $32.6 \pm 8.8$ , 67.7% males, different levels and location of training and of medical practice, mean religiosity 6.510/. More respondents agreed that they would never withdraw than withhold treatment from any patient (38.1 versus 30.2% respectively,  $p= 0.19$ ). Higher professional status and North-American training were associated with more acceptance of withholding and withdrawing of life support. Patient's functional status and quality of life seems to be the most important factor that affect EOL decisions (3.45 out of 5).

**Discussion and Conclusion:** Opinions of physicians working in Saudi Arabia on EOL decisions are variable. Higher professional status and training North American but not perceived religiosity seem to be associated with more acceptance of withholding and withdrawing of life support.

## A - 25

**High prevalence of insomnia among liver cirrhosis patients***Dr. Abdullah Al Enezi, Dr. Hamdan Al Jahdali*

**Introduction:** Sleep disturbances are common among cirrhotic patients with hepatic encephalopathy. Only few studies are available regarding the prevalence of sleep disturbance in cirrhotic patients without overt hepatic encephalopathy. This study aimed to assess the prevalence of insomnia in stable liver cirrhosis patients who are attending the outpatient clinics at King Abdulaziz Medical City, Riyadh and King Khalid University Hospital, Riyadh.

**Methods:** This was a cross-sectional study carried out at two centers: King Abdulaziz Medical City, King Fahad National Guard Hospital (KAMC-KFNGH), Riyadh and King Khalid University Hospital (KKUH), Riyadh over a period of six months. Data was gathered on 201 stable Saudi patients with confirmed liver cirrhosis who are attending the outpatient clinics. The ICSD-2 definition was used to assess the prevalence of insomnia. Personal interviews were used

to collect the demographic data, to confirm the diagnosis of liver cirrhosis, severity of liver cirrhosis based on based on the Child-Pugh scores (CPS), underlying cause of liver cirrhosis, depression.

**Results:** Out of 201 enrolled patients, insomnia was reported by 139 (69%). The mean patient was age  $59 \pm 12.1$  years; 115 (57.%) were males and 86 (43%) were females. Patients with moderate liver cirrhosis CPS class C have more insomnia compared to class A or B (**OR 3.81 P-value <0.01**). No association was found between insomnia and underlying cause of liver cirrhosis, medication, depression, smoking or other medical problems.

**Discussion and Conclusion:** Insomnia is common in liver cirrhosis patients and was significantly associated with severity of liver disease. Greater attention needs to be given to the care of liver cirrhosis patients with regard to the diagnosis and management of insomnia and other associated sleep disorders.

## A - 26

### Distribution of transfusion reactions among recipients of blood or its components:

#### Hospital based study.

*Dr. Ahmad Gudal, Dr. Ahmed Al Suhaibani*

**Introduction:** Blood transfusion is a crucial cornerstone in the management plan for most patients, but its effectiveness is often compromised by adverse unfavorable transfusion-related events. Evaluation of the occurrence of different types of transfusion reactions is an essential step in order to create recommendations to improve blood transfusion services and enhance its safety.

**Methods:** This is a retrospective case-control study (2008210-) conducted at King Fahd National Guard Hospital in Riyadh, data were gathered from transfusion reactions forms and hospital electronic system.

**Results:** The overall incidence of reported transfusion reactions is 0.12% (227 cases), with hemolytic transfusion reactions constituting 33%, followed by 31% and 27% for febrile transfusion reactions and allergic transfusion reactions, respectively. There are 2 cases of contaminated blood products confirmed by positive cultures. Types of transfusion reactions were statistically correlated with both; types of blood product transfused and clinical features ( $P = <0.05$ ).

**Discussion and Conclusion:** Hemolytic transfusion reaction, febrile transfusion reactions and allergic transfusion reactions, respectively are the most common types of transfusion reactions in King Fahd National Guard Hospital.

## A - 27

**Clinical outcomes of familial hypercholesterolemia (FH) at KAMC-Riyadh, 20 years experience**

*Dr. Emad Al Johani, Dr. Mohammed Al Ghamdi*

**Introduction:** Familial Hypercholesterolemia (FH) is an autosomal dominant disorder that is characterized by significantly elevated plasma LDL-C with normal triglycerides. FH is traditionally classified into homozygous or heterozygous types. Homozygous form is usually identified very early in life by its distinct clinical features and premature cardiovascular complications, while heterozygous form is typically recognized later in adulthood by premature cardiovascular events. To evaluate the epidemiological aspects, current management practices and clinical outcomes of familial hypercholesterolemia (FH) in King Abdulaziz medical city-Riyadh (KAMC-R).

**Methods:** This is a retrospective chart review study of elevated cholesterol levels among patients who have been diagnosed clinically as having FH at KAMRC-R in which secondary causes of hypercholesterolemia have been excluded. Demographic, laboratory and clinical data between 1990 and 2010 were collected for medical records and hospital database. For feasibility issues, study population was limited to patients who were found to have LDL  $\geq$  10 mmol/l. Thirty-one study candidates were eligible for review and analysis.

**Results:** Male gender represented in 16 patients (52%) with an overall mean age of 23 years. Clinical features of Xanthoma, xanthelasma and corneal arcus were reported in the majority of cases 87%, 32% and 39% respectively. Statins were the commonest used lipid pharmacological agent (94%), however the majority were on combination of two agents or more. Non-pharmacological interventions included dietary advice in 81%, while regular apheresis therapy was performed only in 2 individuals (7%). None of the patients underwent liver transplantation. Mean latest available LDL-C was 14 mmol/l. Ten patients (32%) underwent cardiac surgical interventions of between Coronary Artery Bypass Grafting (CABG) and different combinations of valve replacement procedures. Mean surgical age was at 21 years. Death was documented in (2 patients) 7%, however (5 patients) 16% were lost to follow up.

**Discussion and Conclusion:** Assuming that majority of these patients are homozygous FH, would support the possibility of having high prevalence of FH in the Saudi population. The reported clinical outcomes may reflect the substandard lipid lowering strategies delivered to the study population.

## A - 28

### Assessment of Saudi Emergency Medical Services (EMS) personnel experience with acute stroke: On-scene stroke identification, triaging and dispatch of acute stroke patients

*Dr. Emad Al Thubaity, Dr. Ali Al Khathaami*

**Introduction:** Acute ischemic stroke is a leading cause of death and disability in Saudi Arabia. Tissue plasminogen activator (t-PA), administered within the therapeutic time window, has been proven effective in reversing the neurological deficit. Emergency Medical Services (EMS) personnel have a fundamental role in accurate recognition of stroke symptoms, timely triaging, and rapid dispatch of patients to appropriate care facilities in order to improve disease outcomes. Our goal was to assess Saudi EMS personnel knowledge and experience in dealing with acute stroke patients.

**Methods:** We conducted face-to-face interviews using 3-part structured questionnaire involving 102 EMS personnel in Riyadh. We assessed participants' demographic factors, their ability to identify cardinal symptoms of stroke, use of assessment tools, knowledge about t-PA, and dispatch of stroke patients.

**Results:** The mean age of participants was 27.6 ( $\pm 4.5$ ) years (range: 20-50 years). About half of the group had experience of up to 2 years. Ten percent of the group had not seen any stroke case but all of them were junior members. Assessment of EMS personnel's knowledge of stroke symptoms revealed that 6% were not aware of any stroke symptoms with 3% identifying 5 or more correct symptoms. None of the participants used any stroke specific assessment tools. About 98% of participants dispatch patients to the nearest hospital without taking into account availability of stroke treatment facilities. Only 6% of the participants were aware of t-PA and its use in stroke care.

**Discussion and Conclusion:** Majority of EMS personnel lacked knowledge of cardinal stroke symptoms, t-PA's principal uses and its therapeutic time window. Training opportunities coupled with the implementation of screening tools and stroke triage and dispatch protocols are urgently required.

## A - 29

### Depression, anxiety and stress among medical students in King Saud bin Abdulaziz University for Health Sciences, Riyadh, KSA

*Dr. Mohammed Al Ghamdi, Dr. Andleeb Arshad*

**Introduction:** The Depression, Anxiety, and Stress Scale (DASS) is a self-reporting survey<sup>[1]</sup>. The objective of the study was to measure the emotional states of depression, anxiety and stress among medical students in King Saud bin Abdulaziz University for Health Sciences. Measuring the Depression, Anxiety and Stress among the students can be a major factor in decreasing the student's outcome or even failure especially in medical colleges<sup>[2,3]</sup>.

**Methods:** The DASS questionnaire was distributed to all the students in the college. The



questionnaire has three scales, namely, Depression, Anxiety, and Stress, each containing seven items. The score for each scale was calculated by summing the scores for relevant items and interpreted according to pre-set cutoffs.

**Results:** There were 168 (61%) responses in a total population of 272 students. Overall the prevalence of all the levels stress was 41% (n=), anxiety (64%) and depression (47%).

When comparing the stress level across the three phases (pre-medical (n=41), pre-clinical (n=44) and clinical (n=44) in male students, there was a significant decrease ( $p=0.079$ ) in the stress level in the clinical phase (28%) as compared to the pre-clinical (52%) and pre-medical (60%) years. The depression was significantly higher ( $p=0.193$ ) in the pre-medical (68%) phase and lower in the pre-clinical (45%) and clinical (41%) phases. Anxiety was significantly higher ( $p=0.106$ ) in pre-medical (85%) as compared to the pre-clinical (61%) and clinical (57%) phases.

Comparisons were made between the first year pre-medical males (n=29) and females (n=39). The proportion of severe depression was significantly higher ( $p=0.013$ ) in males (20.7%) as compared to females (12.8%). The proportion of severe anxiety was significantly higher ( $p=0.001$ ) in males (48.3%) as compared to females (10.3%). There was no significant difference ( $p=0.154$ ) in stress in the males (13.8%) and females (2.6%).

**Discussion and Conclusion:** The study suggests that there was higher level of stress and anxiety in the pre-medical male students when they were compared with pre-medical female students and also when they were compared with their senior male students in the pre-clinical and clinical phases.

## A - 30

### Student perception toward program evaluation of faculty in King Saud Bin Abdulaziz University for Health Sciences

*Dr. Hani Al Shehri, Prof. Mohi Magzoub*

**Introduction:** Student evaluation of faculty has an important role in the learning cycle and curriculum development. Identifying students perception of faculty evaluation may contribute to the improvement of obtaining reliable and valid data that will be used for proper decision making and giving feedback to faculty to improve their teaching. The aim of the study is to explore the perceptions of students about program evaluation and to find out problems facing students and to explore what encourage student to participate in program evaluation system in KSAU-HS.

**Methods:** This study utilized a questionnaire which was developed by (Iqbal & Khizar, 2009) and which includes 28 questions in addition four open ended questions was added. The questionnaire covered four themes including use of evaluation by faculty, use of evaluation by administration, awareness of evaluation by students and the valid criteria for evaluation. The questionnaire was distributed to all students in the four-year medical program.

**Results:** 190 students responded to the questionnaire amounted to 76.9% response rate. Students showed reasonable awareness. Students agreed that teachers use their evaluations

to the improve course (44%), to revise assessment methods (43%), to improve teaching methodology (46%), and that teaching staff do not care about their evaluations (44%) . Additionally students were reasonably aware about evaluation and the valid criteria for evaluation. Furthermore students identified many challenges to evaluation and suggested good solutions resolve them.

**Discussion and Conclusion:** It is concluded from the study that student plays an important role in evaluation of the program. Further researches on the use of program evaluation and its effect on faculty development should also be done.

### A - 31

## Value of subspecialty experience in internal medicine undergraduate training

*Dr. Mohammed Al Kaldi, Dr. Hanan Al Kadri*

**Introduction:** We aimed to assess how students and clinical supervisors perceive students' achievement in the internal medicine subspecialty clinical attachments in comparison with the general attachments.

**Methods:** This study was conducted at the College of Medicine, King Saud bin Abdulaziz University for Health Sciences, Riyadh, Saudi Arabia, during the period between February 2007 and June 2009. We conducted a cross sectional study comparing students' self assessment ratings during the Medicine Block general and subspecialties clinical attachments. We assessed the level of agreement between students' self assessment in the different subspecialties with their self assessment in the general attachments. We repeated the same calculation for the supervisors' assessment

**Results:** 83 students were included; these students have attended 8 different clinical attachments. A total of 517 self assessment forms were completed (120 general internal medicine clinical attachments and 397 forms in different specialty attachments). The clinical supervisors have completed parallel assessment forms. Undergraduate medical students' have perceived their achievement in the subspecialty attachments well. This was similar to their perception of their achievement in the general clinical attachments. The clinical supervisors perceived students achievement in the subspecialties to be similar to their achievement in the general clinical attachments.

**Discussion and Conclusion:** We do encourage the implementation of specialty and subspecialty undergraduate clinical attachments for all students as part of their curriculum requirements. Furthermore, we encourage the strategic utilization of specialties/ subspecialties attachment distribution aiming to enhance students' future interest to achieve balance in the different health specialties/subspecialties manpower. Further research to support this recommendation is needed.

## A - 32

**Patients preferences for physicians' attire in medical clinics**

Dr. Muhannad Al Arifi, Dr. Mohammed Al Ghobain

**Introduction:** The attire of physicians is important elements of patient care. Our objective was to assess Saudi patients' preferences regarding Saudi physicians' attire and to evaluate the influence of physicians' attire on patients' level of trust and confidence in their physician.

**Methods:** A cross-sectional survey was conducted among patients waiting to be seen by their physicians at King Abdulaziz medical city, Saudi Arabia. Patients were asked to select their preferences regarding the attire of male and female physicians. Additionally, patients were asked questions related to their preferences regarding physicians' gender and the influence of physicians' appearance on patient confidence.

**Results:** A total of 399 patients were interviewed (231 males). The main age was 37 years. The majority of the patients (62.1%) preferred physicians to wear formal attire (tie, shirt and trousers); only 9.7% of the patients preferred national Saudi attire (*thoab and shemagh*). The majority of the patients (73.1%) preferred for female physicians to wear long skirts; 85% of patients preferred for physicians to wear a white coat. Approximately 50% of the patients expressed no preference regarding the gender of their physicians or whether female physicians cover their faces ( $p=0.82$ ). Confidence in the physician's competence, and expertise was not significantly associated with the physician's attire or gender ( $p=0.350$ ).

**Discussion and Conclusion:** The majority of Saudi patients prefer physicians to wear formal attire, including a white coat, but they do not care about the gender of their physicians. Nevertheless, the level of trust in a physician is not related to his/her external appearance.

## A - 33

**Misuse of antibiotics in treatment of acute pharyngitis in primary healthcare centers**

Dr. Abdulrahman Al Ajaji, Dr. Hanan Balkhy

**Objective:**

Acute pharyngitis is a common complaint in children and adolescents. With increasing antibiotic resistance because of antibiotic overuse, accurate diagnosis is important. To achieve an appropriate management of acute pharyngitis, we depend on clinical findings (signs and symptoms), rapid antigen-detection tests and throat cultures. Our study was to evaluate pediatricians and family physicians management strategies for children and adolescents with acute pharyngitis, to assess the availability and to determine misuse of antibiotics in treatment of acute pharyngitis in the pediatric patients visiting the primary healthcare centers and to identify the unnecessary prescribing antibiotics in treatment of acute pharyngitis.

**Methods:**

In 2007, 390 charts of patients diagnosed with pharyngitis or tonsillitis were collected and entered into a file in the computing system. We divide the study into two phases to go with the deadline addressed by the college. The first phase is to collect 88 charts and review it for the physicians' management strategies. We assessed clinical and diagnostic factors associated used by physicians for an appropriate management strategy for managing acute pharyngitis. The steps was access database, identifying patients diagnosed with pharyngitis, evaluate prescription including medication, dose and frequency, review charts for demographics and clinical data, analyze data for clinical presentation, diagnosis and management and finally report and manuscript creation.

**Results:**

Upon 87 pediatric patients diagnose with acute pharyngitis or tonsillitis and treating with antibiotics. The male patients were 51 (59%) where the female patients were 36 (41%). Types of prescribed antibiotics were penicillin and penicillin congeners were reported in 69 (79%) of prescriptions. Macrolides antibiotics were reported in the remaining 18 (21%) prescriptions. The most common chief complaint was sore throat which reported in 85 patients (97.7%). The second most chief complaint was fever which was reported in 82 patients (94.3%). In physical examination. The most sign was swollen congested throat and/ or tonsillitis which was reported in 83 patients (95.4%). The second most common was fever which was reported in 62 patients (71.3%). The only investigation that ordered is throat culture which is reported in two (2.3%) cases only. Most of the patients 48 (55.2%) score  $\geq 4$  in Centor score which means empiric antibiotic therapy. We can say that 39 (44.85) of patients prescribed with antibiotics are not match with guidelines for clinical picture of streptococcal pharyngitis.

**Conclusions:**

There is a good chance of improving the management of acute pharyngitis in children and adolescents. A lot of the physicians do not use appropriate management strategies. We should help the physicians to improve their practice in prescribing antibiotics. The improving efforts need to be multifaceted and should include health policy and educational purposes.

## ***B- Riyadh College of Medicine- Masters in Medical education***

### ***B - 01***

#### **Exploring effectiveness of the e-portfolio and mentoring program from perspective of students and mentors**

***Dr. Abdulaziz Al Hassan, Prof. Margaret Elzubeir***

Society has placed increasing demands on medical professionals expecting more effective performance and a professional attitude. In medical education, it is assumed that medical students learn professionalism as part of their training experience and exposure to role models. However, that is not what happens in real life. There has been recent attention on developing professionalism in medical students and including its teaching, evaluation and assessment as part of medical programs. Cruess and Cruess (2006) state that professionalism needs to be taught explicitly and at all levels of medical education training.

The College of Medicine (COM) in King Saud bin Abdulaziz University for Health Sciences (KSAU-HS) has realized this concern and has developed Personal and Professional Development (PPD) as one of the main themes of its curriculum (College of Medicine Handbook, 2008). This theme highlights areas of student growth and development that address current as well as future pressures and help students become integrated within this learning system and within their future work environment. One of the methods for assessing professionalism has been through the use of student portfolios (Buckley et al, 2009).

### ***B - 02***

#### **The perceived effects of implementing new teaching methods in the Advanced Education of General Dentistry (AEGD) program at King Abdul-Aziz Dental Center (KADC), Riyadh**

***Dr. Abdulaziz Al Dojain, Prof. Margaret Elzubeir***

**Introduction:** To explore if implementing new teaching methods in the AEGD program affects positively or negatively on the trainees qualities of learning and clinical competence from the residents and faculty's point of view.

**Methods:** In-depth interviews were conducted with 8 residents in the AEGD program and 4 faculty members involved as supervisors at the king Abdul-Aziz dental center, Riyadh.

**Results:** Residents and supervisors reported positive outcomes about the majority of teaching methods implemented in the residency program.

**Discussion and Conclusion:** Implementing new teaching methods in dental residency programs are perceived to improve the programs' quality in learning and the motivation of the residents towards achieving the program requirements and expected clinical competences.

### B – 03

## Comparing respiratory science students' satisfactions with traditional versus problem based medical education in Saudi Arabia

*Dr. Adel Al Mesnad, Prof. Margaret Elzubeir*

**Introduction:** This study aims to determine and compare perspectives and satisfaction of students regarding problem-based learning and traditional teaching and learning methods.

**Methods:** A cohort purposive sampling of Sixty four Respiratory Therapy students registered for a baccalaureate degree in two different universities was applied. Problem-based learning curricula group were from King Saud bin Abdulaziz University for Health Sciences (KSAU-HS) in Riyadh, KSA. The other group were from Loma Linda University extended campus (LLU) in Riyadh, KSA that still uses traditional teaching methods. Two batches from each university were included in this study, year five (senior batch), year four (joiner batch). A Likert 5-point scale was used to assess the students' satisfaction levels between the university that adapted PBL curricula and the university that adapted traditional teaching curricula. Scores regarding the satisfaction levels between these two teaching methods in both universities were analyzed using a 2-sided paired *t*-test.

**Result:** There were statistically significant differences between students at the two universities regarding various aspects of their learning experiences.

Statistically significantly more KSAU-HS students were satisfied with respiratory therapy learning that provided greater understanding of techniques of respiratory therapy than their LLU counterparts (*p* 0.05). There were however similarities between the two universities on statements in all other domains of the questionnaire. ('Understanding of other medical knowledge', and 'Being interested and motivated to learn'). However, it shows a small but statistically insignificant difference in favor of PBL teaching over traditional teaching.

**Discussion and Conclusion:** the results of our study showed that, Respiratory therapy students experiencing a problem based learning curriculum were satisfied with the curriculum and their experiences of it.

### B - 04

## Readiness of final year undergraduate medical, nursing and applied medical sciences students for interprofessional learning (IPL) in

*Dr. Ali Aboalela, Prof. Margaret Elzubeir*

On the whole, health care students appear willing to participate in curricula that incorporates inter-professional learning as part of its activities. However, there were significant differences among students where the medical college students appeared less receptive towards inter-professional learning than the other students in our study. Using the 29-item Readiness for Interprofessional Learning Scale (RIPLS) questionnaire allowed us to get a better understanding of enrolled students and their perspective of being able to participate in such programs. Future curriculum planners can use the results from this study in planning activities that better fit the attitudes of undergraduate students and

implementing tools such as orientation programs and workshops for IPL activities to better suite and address such differences.

### B - 05

## Challenges facing Saudi female health professionals in selected academic institutions in Riyadh, KSA

*Dr. Amal Al Shaibani, Dr. Francis Michael Seefeldt*

**Introduction:** The aim of this study is to identify the challenges and obstacles in the workplace, community, and society faced by female health professionals working in academe in the city of Riyadh, Saudi Arabia. This study also intends to lay the groundwork for an eventual national survey about professional Saudi women's issues in academic institutions in the Kingdom of Saudi Arabia.

**Methods:** The participants were Saudi female health professionals working in the field of health professional education in two of the universities in Riyadh. All participants were independently interviewed by the principle investigator to answer all items in the study questionnaire. All questionnaire data were coded and qualitative content analysis was used.

**Result:** Upon analyzing the data three themes and codes were achieved: the first theme covered all questions related to gender and work place, theme two covered all questions related to family and academic challenges, and theme three covered the cultural and social effects on female academic challenges. Most of respondents felt that there was no professed gender conflict either within or between genders as long as there were clear job descriptions and policies, although few felt it convenient to be separated for cultural reasons. Time management was found to be an essential issue to balance the pressures of work and demands at home and this was mentioned many times by the respondents as well as the strong support from spouses and recently from the government. Cultural and social barriers were mentioned by most of the respondents and a diminutive number of female leaders set a good example.

**Discussion and Conclusion:** Saudi female professionals in academes reported high success in maintaining good balance between family and work pressure and reported little apparent gender conflict if regulations and rules were followed. Yet their future progress needs more support from their institutes and other senior staff.

### B - 06

## Using the Communication Assessment Tool (CAT) in King Abdul-Aziz Medical City family medicine residency program, Central Region, 2011

*Dr. Bader Al Khateeb, Prof. Mohi Magzoub*

**Introduction:** Acquiring competency in communication skills is essential to the practice of family medicine. Accumulating evidence documents that what is called as «communication assessment tool» (CAT) is a reliable and valid instrument for measuring patient's perceptions

of physician's performance in the area of interpersonal and communication skills. Aim: Is to apply the «communication assessment tool» (CAT) in King Abdul-Aziz Medical City Family Medicine Residency Program, Central region.

**Method:** This is a descriptive, cross-sectional type of a study. The study was conducted in King Abdul-Aziz Medical City (KAMC), Riyadh, Khashm-Alaan area. It was performed among the five main teaching areas designated for the teaching of the family medicine residents at the Satellite out-patient primary health care level clinics. Study population were selected and chosen in a consecutive manner. The primary researcher interviewed the study population, through a Communication assessment tool (CAT), 14-items questionnaire. CAT assessed the communication skills of the family medicine residents from a patient perspective. Data were entered and analysed by SPSS software.

**Outcome Measures:** The Study population sociodemographic characteristics, and Communication assessment tool items.

## B-07

### Dental faculty beliefs and intentions concerning teaching in Saudi universities

*Dr. Bahia Al Askar, Dr. Francis Michael Seefeldt*

**Introduction:** Teachers' beliefs (or conceptions) are important concepts in understanding their thought processes, Instructional practices, attitude toward change, and learning to teach. There are clear evidence indicating strong links between teaching conceptions, teaching methods and student learning. Evidence also showed that they are considered as a major barrier to faculty development and changing. In response to their important effect in changing education, teachers' beliefs and approaches to teaching have been an important issue in worldwide studies. However, nothing has been known about faculty conceptions in higher education in general and dental education in particular in Saudi universities. The purpose of this study was to assess the teaching conceptions and intentions among Saudi dental faculty, identify the relation between them and investigate the influence of some factors on these conceptions and intentions.

**Methods:** A questionnaire measuring nine different aspects of teachers' beliefs and intentions concerning teaching of dental students was distributed to dental faculty at two Saudi universities. The questionnaire was disseminated by two ways; in person and a special online program used for conducting surveys.

**Results:** Teachers' beliefs showed more tendencies toward learning facilitation while intentions were more toward knowledge transmission. There was also an overall consistency between the teachers' beliefs and their intentions. Females reported higher scores on learning facilitation subscales than males. Teachers graduated from Saudi colleges reported more tendencies toward learning facilitation regarding beliefs and intentions than those graduated from developed countries (United States and United Kingdom) colleges. There were some differences between the teachers from the two institutions and across the



different departments on their intentions which reflect the contextual effect.

No significant findings were noticed between teachers with different experience, or between trained and untrained teachers.

**Discussion and Conclusion:** Our study has confirmed the previous findings of an underlying consistency and disjunction between teachers' beliefs and intentions in higher education. Evidence was found about the influence of some personal and contextual variables on the teachers' beliefs and intentions (Institution, Department, Gender, and Nationality). Conceptions of teaching do not change with experience. Trained and untrained teachers had similar teaching intentions supporting the suggestion of placing greater emphasis on conceptual changes in professional development programs.

***Teachers > approaches to teaching reflect the influence of their beliefs of teaching and their academic context***

### **B-08**

## **Evaluating the Learning Environment of a Dental College Using the Dundee Ready Education Environment Measure (DREEM) Inventory**

***Dr. Ohood Al Mutawa, Prof. Margaret Elzubeir***

**Introduction:** An often overlooked aspect of curriculum development and improvement of educational environments are students' involvement through their feedback. To address this need for understanding strengths and weaknesses of the learning environment of a dental college which has recently started a project to review and reform its curriculum it is anticipated that this study will provide the College with helpful baseline pre-change information. The purpose of this study was to evaluate the educational environment of the College of Dentistry of King Saud University from perspectives of undergraduate dental students using the Dundee Ready Education Environment Measure Inventory (DREEM).

**Methods:** The translated and validated in Arabic Dundee Ready. Education Environment Measure (DREEM) questionnaires were distributed to all under graduate students of the Dental College. The questionnaire consisted of 50 statements organized in five subscales (perceptions of learning, teachers, atmosphere, academic self-perceptions and social self-perceptions). Internal validity was determined by Cronbachs alpha.

**Results:** The response rate was 62%. Overall Cronbach alpha was 0.9 (excellent). The overall DREEM mean score was 113.8200/ (57%), the students' social self-perceptions showed the lowest score 1528/ (54%). No significant differences were observed by study years. However, there were significant differences between pre-clinical and the clinical years in students' perceptions of atmosphere and students' social self- perceptions domains, (p 0.03 respectively) (p< 0.05). Also, there were significant differences (p <0.05) between male and female students on the overall DREEM score (p 0.03); students' perception of teachers (p 0.001) and students' perception of atmosphere (p 0.04) subscales scores. Mean scores for each DREEM item varied from 1.6 to 3.1. The lowest mean score (1.6) was for the item: "There is a good support system for students who get stressed".

**Discussion and Conclusion:** Applying DREEM as a diagnostic tool provides important insights and understanding of learning environment of our dental college, Students' perceptions of the educational environment were reasonably positive. However, some weaknesses were identified, particularly in the clinical years. Further research is needed to illuminate suitable interventions.

### **B - 09**

#### **Reasoning In Postgraduate Emergency Medicine, Is a Program Needed? Dr. Maytha Al Yahyah, Dr. Francis Michael Seefeldt**

**Introduction:** To identify whether or not it is necessary to incorporate a clinical reasoning program based on cognitive psychological views in postgraduate emergency medical residency. Specifically, the study is to determine: the need, awareness and the preferred reasoning theme among emergency residents enrolled in the training program in Riyadh, Saudi Arabia.

**Method:** The study was conducted at King Abdul Aziz medical city in Riyadh, Saudi Arabia, using a cross-sectional design to achieve the study objectives with questionnaires structured specifically based on well known reasoning strategies commonly utilized in emergency medicine as the research instrument.

**Results:** The overall results revealed a favorable attitude toward the inclusion of a clinical reasoning program during residency training with monthly sessions, somewhat poor awareness with regard to reasoning techniques used in emergency medicine and most preferred either a combined reasoning method (based on experience and data analysis) or did not have a specified reasoning process.

**Discussion and Conclusion:** Residents acknowledge their limited awareness of clinical reasoning techniques and perceive the need for a theoretical reasoning program to be introduced during their post-graduate residency training.

### **B - 10**

#### **Is CME effective in improving physicians' knowledge?**

##### **Second order systematic review Dr. Mohammed Al Onazi, Prof. Mohi Magzoub**

**Introduction:** The goal of this review is to determine the effectiveness of Continuing Medical Education (CME) activity on improving physicians' knowledge.

**Methods:** It is a comprehensive review of the systematic review of English literature concerned with CME activity and its impact on physicians' knowledge. The search plan include electronic, bibliographic and hand searching. The following databases were utilized for searching: MEDLINE, EMBASE, the Cochrane Database of Systematic Reviews. The Cochrane Central Register of Controlled Trials (CENTRAL), the Cochrane Database of Abstracts of Review of Effects (DARE), and the Educational Resource Information Center (ERIC). Our search covered the period between 2004 till October 2011.

**Results:** Nine systematic reviews met the inclusion criteria. The overall quality of the primary studies in the included reviews was of poor quality due to insufficient data provided to arrive at a firm conclusion. Although need assessment was not considered in most of the studies, all reviews except one, reported improvement in physicians' knowledge after an interactive, multifaceted educational intervention which ranges from one hour to three years long. Most of the reviews reported sustainability of information at 6 months post educational intervention, after which a re-intervention is advisable to prevent the decay of knowledge. Improvement of physicians' knowledge was evaluated by several instruments in the reviews, the commonest of which is questionnaire. Despite its common use, only few trials utilized validated questionnaires and provided reliability and validity information.

**Discussion and Conclusion:** In summary, pre-educational intervention need assessment and an interactive learning activity is required in designing CME to ensure a positive effect on physicians' knowledge. For sustaining such effect a follow up educational intervention should be planned 6 months to one year later.

## B - 11

### Residents training during their off-service rotations

*Dr. Mustafa Al Quraini, Prof. Mohi Magzoub*

**Introduction:** Residency Training Programs mainly focus on their own specialty curricula. Off-service clinical rotations are usually given little attention, which may lead to suboptimal educational experiences for the residents taking these rotations.

What we aim in this study is to assess the resident's perceptions, opinions, and level of satisfaction about their off-service rotations in a major residency training site in Saudi Arabia, which might help residency training authorities to improve the off-service rotations educational activities.

**Methods:** A survey questionnaire was distributed to 110 off-service residents in different specialty training programs at King Abdul-Aziz medical City (KAMC), who did their off-service rotations between the periods of Sept. 2011 till Dec. 2011.

**Results:** A total of 80 out of 110 residents completed and returned the questionnaire. 26 (33%) of residents had a clear set of goals and educational learning objectives to direct their training, before starting the off-service rotations. 64 (80%) had protected time for their residency educational activities. Surgical specialties had low satisfaction mean scores ( $57.2 \pm 11.9$ ) compared to emergency medicine ( $70.7 \pm 16.2$ ) off-service rotation, p. value (0.03).

**Discussion and Conclusion:** Our data suggest that there are significant weaknesses in the current off-service clinical rotations curricula in KFNGH, KAMC.

## **B - 12**

### **Applied medical sciences students satisfaction about their curriculum, internship in King Saud bin Abdulaziz University for Health Sciences**

***Zaam Nejer Al Otaibi***

Student satisfaction has been studied extensively in the past but the area of medical education was not studied with many studies. Theories like career theory have been used to explain how occupational and psychological variables can influence attitudes toward careers. Student satisfaction is very much associated with their future professional attitudes, career commitment and retention, so professional education faculties should focus on the student satisfaction as an outcome of the education process<sup>1</sup>. Medical students experience numerous interactions with multi professional staff, patients, and other students. They have a heavy workload and are required to accomplish many tasks in the same time. The atmosphere in a medical school is often competitive and can be sometimes even unfriendly. Students may feel humiliated and might be abused in the course of learning. Working closely with medical instructors, students are influenced by both positive and negative role models. Modern reforms in curriculum strategies leading to more student centered and problem-based learning along with vertical integration have influenced the learning environment positively, but these changes are not uniform or consistent.

Stenhouse, Genn understands curriculum as 'everything that is happening in the classroom, department, Faculty or School or the University as a whole'. Like Genn, Hafferty proposed that the medical school is best thought of as a learning environment and that reform initiatives must be undertaken with an eye to what students learn instead of what they are taught.

## C- Riyadh College of nursing

### C - 1

#### Blood Donation Attitudes and Practices among hospital Staff in Saudi Arabia

*Fahda Al Asraj*

**Introduction:** Donating blood is influenced by a person's knowledge and attitude towards it. Literature is limited, on the factors affecting blood donation and attitude of medical staff. This study explores the blood donating pattern of care givers, what motivates health care personnel to donate blood and the perceived barriers that influence the non-donors.

**METHODOLOGY:** A cross sectional study was carried out based on a structured questionnaire. Survey forms were distributed to a stratified random sample of 236 care providers belonging to different departments, within National Guard Health Affairs. Variables included demographics, history of blood donation, reasons for donating: as religious beliefs, awareness campaigns, money etc and barriers for the non-donors: fear of needles, perceived misuse of blood, access etc. Multiple responses were sought and descriptive analysis was carried out.

**RESULTS:** Included in the study were 122 males and 114 female care givers. Mean respondent-age was 33 years. Nearly 49% of subjects had donated blood at least once. Most reported motivating reason for donors was humanitarian 74%, followed by giving blood for relatives, 41%. For the non-donors among medical staff, 40% said that time constraints prevented them from donating blood. Interestingly, 30% feared dizziness and nearly 25% were afraid of needles.

**Discussion and Conclusion:** Blood donation is not a common practice among medical personnel, as nearly half of them do not donate blood. Incentive of protected time and rewarding this as a humanitarian gesture would be beneficial. Perceived unfounded fears among the medical staff may be addressed with promotional blood donation drives.

### C - 2

#### Impact of the Exchange of Hemodialysis Catheter for the Management of Suspected Catheter Sepsis

*Rihab Al Jizani*

**Introduction:** Hemodialysis vascular access (HVA) is associated with well known complication identified as the major source of morbidity and mortality among hemodialysis patients (1); catheter related sepsis (CRS). Several patients with HVA was presented in the interventional department for hemodialysis catheter exchange for suspected sepsis based on the clinical characteristics such as high temperature, fever or positive blood culture result which can be signs for other health related problem. As a standard of care the patients went through a certain diagnostic lab tests to confirm the presence of sepsis. As a result the

Hemodialysis catheter exchanged based on suspected sepsis. According to the department policy the old catheter sent for culture to confirm the source of infection.

**Methods:** The study conducted in the Interventional Radiology Section, Medical Imaging department at King Abdul-Aziz medical city, Riyadh. Thirty-six consecutive hemodialysis adult patients who had hemodialysis catheter exchange based on suspected catheter sepsis in (Jan-Jul/2011) were included. Retrospectively the data collected from the Quadramed and PACS (picture achieving and communication system); systems used by the hospital and the interventional radiology department. Patient's medical records reviewed for further information. The data included the demographical data (Age and gender) of the patients, clinical characteristics (sepsis signs and symptoms), laboratory data (WBC) and microbiology prophile results (blood culture, catheter tip culture) before and after the hemodialysis catheter exchange. The patients divided into two groups negative (a group had a negative microbiology result) and positive (a group had a positive microbiology result). The data analyzed in the SAS software by the statistical team in the king Abdullah research center. The ethical consideration of the patients maintained no names or medical records were mentioned the patients assigned to random numbers to prevent duplications.

**Result:** Sixty six percent of the population had done hemodialysis catheter exchanged based on suspected sepsis their microbiology result came up negative (the catheter was not the source of the infection), thirty three percent their result came positive (the catheter was the source of infection).

**Discussion and Conclusion:** Catheter exchange based on clinical sepsis without confirmed laboratory results will affect the health care resources and cost effectiveness. For that revaluation of the current practice and establishing new internal guidelines for catheter exchange due to suspected sepsis is highly important in every institution and it should be compatible with the international guidelines and published data.

### C - 3

## The Awareness of Folic Acid among Nursing and Medical College Students in Riyadh

*Hawra Al Sulasis, Dr. Hala Saied*

**Introduction:** Folic acid is a water-soluble B vitamin. Adequate periconceptional intake of folic acid is known to significantly prevent almost 5080%- of Neural Tube Defects (NTDs) which are a group of birth defects that occur during early pregnancy and have serious complications. Folic acid food fortification was adopted by many countries, including the Kingdom of Saudi Arabia (KSA). After folic acid fortification, the incidence of NTDs in KSA was decline; however, the incidence is still high, and usually associated with serious morbidity. This emphasizes the need for health education programs to increase folic acid consumption by women of childbearing age, to further reduce NTDs. Health care professional should have enough knowledge to educate their clients about the importance of using folic acid. The aim of the present study is to determine whether female nursing and medical students are

sufficiently knowable about folic acid to effectively counsel women regarding its ability to prevent birth defects in their future clinical practices.

**Methods:** This is a cross sectional survey. Convenience sample of 168 participants were interviewed using a questionnaire developed by the researcher. The participants were recruited from Female college of nursing and female college of medicine at King Saud bin Abdul-Aziz University for Health Science in Riyadh. The study questionnaire covered knowledge and use of folic acid supplements, association of folic acid and birth defects, sources of folic acid, demographic and socioeconomic characteristics

**Result:** The results of the survey indicated that 60 % of the participants didn't know what is folic acid and 78% of the students didn't take it before. Only 40% of the participants made the association between folic acid intake and spina bifida. 53% of the participants mentioned that folic acid should be taken 3 months before conception while more than half of the students ( 61.3% ) didn't know the daily requirements of folic acid .

**Discussion and Conclusion:** Awareness and use of folic acid was less prevalent among Saudi nursing and medical student. Single young college students were not aware of the importance of folic acid, were not taking multivitamins containing folic acid, and were not consuming enough folic acid in their diets. Educational strategies are required to increase folate awareness among future health care providers and to promote the benefits of periconceptional folic acid supplementation.

#### C-4

### A Retrospective Study: Troponin as a Diagnostic Tool to Predict Septic Shock Outcome for Patients in the ICU

*Saja Al Ibrahim, Ayan Dalel Mack*

**Introduction:** With mortality rate of 30-75%, Septic shock is the number one cause of ICU admissions worldwide<sup>(1)</sup>. It is increasingly recognized that elevated troponin levels occur in many patients who do not have evidence of coronary artery disease and can occur in critically ill patients with Septic shock<sup>(2)</sup> Thus, elevated troponin levels are clinically important because they may act as an adverse prognostic marker.<sup>(2)</sup> The prognostic value of elevated serum levels of cardiac troponin is well recognized in critically ill patients, however, the relationship between elevated cardiac troponin levels and a diagnosis of Septic shock remains uncertain. **Objective:** The purpose of the study was to assess the association between Troponin I levels and the outcome of patients with septic shock.

**Methods:** Retrospective cohort study of 123 patients admitted to the ICU during 2010 with primary diagnosis of septic shock. The Troponin I level was tested during the first 3 days of ICU admission with a cutoff of 0.03 µg/. Troponin I elevation with septic shock was compared with mortality rate to confirm the relationship between the two. Logistic regression analysis was done to find the independent association between Troponin I elevation and outcome of patients with septic shock.

**Results:** 71% of the study subjects had an elevated Troponin level greater than 0.03µg/l,

which is abnormal. In addition to the elevated Troponin, these patients were older and had a higher APACHE II score, and total 78% of them did not survive from the Septic shock. Furthermore, out of the 123 admissions to ICU with septic shock, 48%, majority of them with high levels of Troponin (59N) deceased during the ICU stay.

**Discussion and Conclusion:** despite the small number, the study found that the majority of patients with septic shock had an evolved Troponin I level without coronary artery disease. Using Troponin I elevation I as a biomarker to predicate mortality in patients with septic shock is a possibility and needs further exploration.

## C - 5

### The Association of Child Abuse with Young Adult's Depression in Saudi Arabia

*Kholoud Al Harbi, Abeer Jafari, Dr. Hala Saied, Dr. Maha al Muneef*

**Introduction:** Every child has the right to health and a life free from violence. Each year, millions of children around the world are the victims and witnesses of physical, sexual and emotional violence .In almost every case of significant adult depression, some form of abuse was experienced in childhood, either physical, sexual, emotional or, often, a combination. The purpose of this study was to assess the relationship between child abuse and depression in young adults and answer the following research question: Are childhood histories of physical, emotional and sexual abuse associated with adult depressive symptoms?

**Methods:** A Convenience sample of Fifty four males and females residing in Riyadh participated in the study. Participants were recruited from different settings including outpatients' clinics, public restaurants, patients' relatives and friends. Child abuse was assessed by ICAST-R.The ICAST-R, has been developed to ask young adults (aged 18-24-years) about violent experiences that occurred before they were 18 years old. Depression was measured by the Beck Depression Inventory (BDI; Beck & Beamesdorfer; 1996).

**Results:** The study included 54 participants (34 females [69.6%] and 11 males [20.4%]). Their age ranged from 18-24 with a mean of  $20.3 \pm 1.7$  years. The majority of the participants were college students (66.7). Physical abuse in the form of hitting (38.9%), kicking (18.5%), shaking (9.3%), and stabbing by sharp object (5.3%), was reported by the participant. Emotional abuse in the form of criticism (33.3%) was reported by the participant. Sexual abuse in the form of exposing their genitals when they did not want to (24.1%). The prevalence of depression according to the Beck Depression Inventory (BDI) (cut-off point: 19). Results shown that children who were emotionally abused were more depressed than other children  $t(42) = 2.00, P = 0.007$ .

**Discussion and Conclusion:** Although emotional abuse is the least studied of all forms of child abuse, it may be the most prevalent factor associated with young adult's depression. Programs to prevent child abuse should be emphasized and clinicians evaluating depressed youths should screen specifically for presence of different types of abuse.



## C - 6

**Evaluation of the Utilization of e-blackboard System among Students and instructors in KSAU-HS***Zahra Asserri, Dr. Farida Habib*

**Introduction:** Blackboard course management system is used by hundreds of universities. Blackboard system is a web based comprehensive learning management system that has been used worldwide in high education 20 years ago. It is easy to use and can be used without any knowledge of HTML. It is also allow the instructor to deliver their courses material, as a hybrid course or as an online course. Blackboard system nowadays becomes an effective educational system to improve the quality of learning in high education institutions. Blackboard system includes many features which are easy to reach at anytime, anywhere. The user only needs a user name and password to start using the system. All of course materials could be found in the blackboard system features such as lectures, course syllabus and assignments. Most research about Blackboard has focused on how to encourage faculty to use it. Little research has been done to determine how students and faculty use Blackboard to enhance learning. **Purpose:** This study aimed at evaluating the utilization of E-blackboard system tools based on a target sample of undergraduate students and their instructors. The study was designed to find out whether undergraduates and instructors have a shared vision for how Blackboard is currently being used and how it should be used to support instruction.

**Methods:** A cross sectional design was conducted to collect data for the study. Sample included both undergraduate students and instructors from different departments at KSAU-HS. Sample consisted of 194 students and 46 instructors. Tow Likert's scale questionnaires were developed to assess the effectiveness of the blackboard for both students and instructors. The Questionnaire included different factors such as: ease of using the system, perception of usefulness from both of students and instructor's point of view, and impact of using blackboard system in the students and instructors' performance.

**Results:** The majority of the students in the sample were female (85%) while only 15% were male. About 64% were nursing students and 36 % were medical students. More than half of the students (52.1%) have been using the blackboard system for 2 years. Fifty one percent of the students agreed that the blackboard system was difficult when they started using it. The blackboard features that are used by most of the students at least three times a week were announcements (73.2%), course information (62.9%), course contents (58.8%, contacts (56.7%), and assignments (54.1%), More female students indicated that blackboard system facilitate third learning than male students ( $P = 0.000$ ). The majority of the instructors in the sample were female (69.9%) while only 30.4% were male. About 41.3% were nursing instructors and 58.7 % were medical instructors. Half of the instructors (50%) have been using the blackboard system for only one year. Sixty point eight percent of the instructors indicated that they use the blackboard system at least three times a week. Sixty three percent of the instructors believed that students' performance has improved as a result of

using blackboard.

**Discussion and Conclusion:** most of the instructors and students view E-blackboard system as an effective tool for students' learning. Also the study results shows the when instructors have mere work load they tend not to use E-blackboard system as required

## *D-Riyadh College of Applied Medical Sciences:*

### *D - 01*

#### **Emergency Medical Services in Saudi Arabia: A Study On The Significance Of Paramedics And Their Experiences On Barriers As Inhibitors Of Their Efficiency**

*Raed Al Ghamdi, Dr. Abdullah Al Anazi*

**Introduction:** Emergency Medical Services (EMS) provides out-of-hospital acute medical care to different types of serious emergencies. The team of EMS includes paramedics, besides many other staff working in the pre-hospital setting. Most of the exigencies are managed by paramedics, including technicians and the driver of the ambulance. Although, the paramedics are the first responders to the patient in emergency, they face several barriers, which interfere with their efficiency. However, the magnitude of these obstacles is not known, hence, it was found worthwhile to evaluate the depth of these difficulties.

**Methods:** A questionnaire was designed and it included 8 different commonly experienced barriers and 4 different variables of strength. The questionnaire was served to 140 paramedics in three different regions (Jeddah, Riyadh and Dammam) of Saudi Arabia and 70 paramedics were selected from each area.

**Results:** The positive response obtained was statistically significant for traffic congestion ( most of the times,  $p < 0.01$ ; always  $p < 0.001$ ), nuisance by bystanders and family members ( $p < 0.001$ ), incompetence of doctors and the administration ( rarely  $p < 0.05$ ; most times,  $p < 0.01$ ; always  $p < 0.001$ ), lack of trust and confidence ( $p < 0.001$ ) lack of independence ( $p < 0.001$ ), patient's resistance ( $p < 0.001$ ), Interference of legal issues and litigation proceedings (most of the times  $p < 0.05$ ; always  $p < 0.001$ ), paramedic's impression on general public and the family of the patients ( $p < 0.001$ )..

**Discussion and Conclusion:** This study showed that there are many barriers which interfere with the efficiency of paramedics and the authorities may improve proper education and training to the paramedics and introduce the subject of EMS in the medical curriculum.

### *D - 02*

#### **Fasting blood glucose as an indicator of long term glycemic control as compared with estimated average blood glucose derived from HbA1c**

*Nabeel Al Zahrani, Dr. Waleed Al Tamimi*

**Introduction:** Diabetes mellitus is a chronic illness that is a major health issue in Saudi Arabia and all over the world. The latest national epidemiological survey that was conducted in Saudi Arabia suggested that 23.7% of adults between the ages of 30-70 years have diabetes.

Glycated hemoglobin (HbA1c), has been used to monitor glycemic control in patients with diabetes for many years. It was found that HbA1c can be expressed in blood sugar units

using an equation that defines the relationship between HbA1c and the average blood sugar over the last 23- months. Although measurement of HbA1c is used for calculation of estimated average glucose (eAG), it is now recommended that eAG is used instead of HbA1c for expression of blood glucose control. However, the limitations of using HbA1c as a screening test have been extensively discussed in the literature. Apart from interference by some drugs and the effect of anaemia on the test, standardization of the test and using different assays are other limitations. High cost of HbA1c could be another barrier in recommending HbA1c as a screening test.

**Methods:** We retrospectively reviewed records of 1740 patients with type 2 diabetes mellitus. There were 918 females (52.8%) and 822 males (47.2%). The mean  $\pm$ SD age was  $57.9 \pm 10$  years. Inclusion criteria: Cases with HbA1c  $\geq 6.5\%$  (definite diabetics) FBS and HbA1c were done within a maximum of one week from each other (mostly on the same day). We excluded cases that had incomplete data.

**Results:** Mean  $\pm$  SD HbA1c:  $8.64 \pm 1.7\%$  ; Median and interquartile range for HbA1c: 8.3% (7.29.7%-) ; Mean  $\pm$  SD FBS:  $9.3 \pm 3.7$  mmol/l ; Median and interquartile range for FBS: 8.3 (6.810.97-) mmol/l ; Mean  $\pm$  SD estimated average glucose (eAG):  $11.142.7 \pm$  mmol/l ; The difference between the FBS (eAG) is significantly different between ( $P < .001$ ) Pearson correlation coefficient between FBS and eAG:  $r=0.65$ ,  $P < 0.0001$  (95% CI, 0.620.69-)

**Discussion and Conclusion:** There is a strong correlation between FBS and eAG ( $r=0.65$ ,  $P < 0.0001$ ). Although FBS might be helpful for daily monitoring of diabetes, it can't replace the HbA1c and its derived variable, eAg as an indicator of long-term overall control of DM. Further studies are needed to verify this finding and to define FBS range in which it is most reliable as a long term glycemic control indicator.

### D - 03

#### MECHANICAL VENTILATOR ALARMS: WILL THEY EVER GO OFF?

*Faisal Turkistani, Mansour Al Alawih, Taha Ismaeil*

**Introduction:** Ventilator alarms are critical component of patient's care and safety in the ICU. The presence of almost 40% ICU false negative alarm events can be overwhelming and cause either alarm desensitization of clinician or laxity on the way the alarms are set, or both. Unfortunately, these actions lead to lack of response to real event or a dramatic reduction on the number of alarm events since the limits are simply too hard to reach even in situations when the patient is seriously decompensated. There is very limited data on how RTs set the alarm limits for patients in the ICU. Our objective is to evaluate how these limits deviate from both the observed ventilator parameters and from the recommended limits in adult ICUs.

**Methods:** Prospective observational study at a university affiliated, 1000-bed hospital in Riyadh, Saudi Arabia. We collected data in a total of 8 adult ICUs. Respiratory therapy students, under direct supervision of faculty and staff, recorded high (Hi) and low (Lo) alarm settings for all mechanically ventilated patients in the ICUs ( $n=31$ ) during the first ventilator

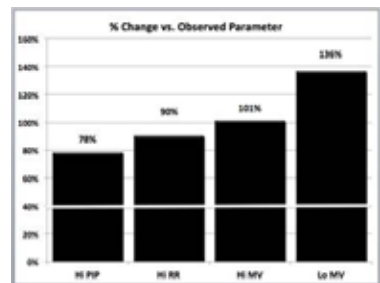
check of day shift. The alarm settings selected for analysis were high respiratory rate (Hi RR), high peak inspiratory pressure (Hi PIP), and high and low minute volume (Hi MV, Lo MV), as they represent the most commonly monitored alarms.

**Results:** The mean value recorded for the observed parameters was: RR 23.3 (SD 6.1) breaths/min; PIP 24.9 (SD 6.8) cm H<sub>2</sub>O; MV 9.9 (SD 2.5) L/min. every alarm limit recorded was significantly distant from the observed parameter (range: 90%-136%). When a 40% alarm limit above and below the observed parameter was selected, the percent deviation from this new limit ranged between 38% (Hi PIP) and 96% (Lo MV).

**Discussion and Conclusion:** Ventilator alarm settings in our study were in complete disconnection with the observed parameters or any recommended limits on patients receiving mechanical ventilation. Although false alarms can clearly affect efficiency in the ICU environment, it is critical that alarm limits are set appropriately to detect changes in patient's condition that may require intervention.

Future Direction:

as part of a quality and improvement project, RT students from KSAUHS will present this data to the RT department at National Guard Health Affairs and will conduct a follow-up study 3 months later.



## D - 04

### The beliefs and attitudes of paramedics to pre-hospital Thrombolysis

*Qais Al Rashidi, Dr. Abdullah Al Anazi*

**Introduction:** Myocardial infarction is the third leading cause of death in the devolving countries, thrombolysis therapy as a reperfusion therapy in acute myocardial infarction has shown a great role in decreasing both in-hospital and long term mortality rate, many studies have supported pre-hospital thrombolysis therapy and proven that pre-hospital thrombolysis decreases the time of thrombolysis and all causes of hospital mortality and supported the safety and the feasibility of pre-hospital thrombolysis in acute myocardial infarction. Assessing the paramedics confidence about their level of knowledge and the belief and the attitudes toward delivering pre-hospital thrombolysis therapy is essential to take the first step in implementing protocols and training courses to achieve the purpose model of care either paramedic deliver pre-hospital thrombolysis therapy or tele-medicine link with a physicians authorizing pre-hospital thrombolysis. To our knowledge there has been no research conducted to assess the beliefs and the attitudes of paramedics toward pre-hospital thrombolysis in Saudi Arabia

**Method:** Questionnaire was distributed to paramedics in the Red Crescent centers and the emergency medical services in (King Abdulaziz medical city, King Fahad Medical City, King Faisal Specialist Hospital, security forces Hospital, Al Shumaisi hospital) in Riyadh. The questionnaire includes the knowledge of risk and benefit of pre-hospital thrombolysis and the belief and attitude of paramedics toward pre-hospital thrombolysis therapy in acute myocardial infarction.

**Result:** 72 of paramedics completed the questionnaire out of 100 respondents. 87% believe that they are capable to perform pre-hospital thrombolysis, 86% are confident to record 12-lead ECG in pre-hospital settings, 81% are confident in their interpretation of a 12-lead ECG. A higher percentage of them 97% believe that Pre-hospital thrombolysis will have significant saving in Pain to needle time. 83% believe pre-hospital thrombolysis is safe for use by paramedics. When questioned about the future role of the paramedic's towered pre-hospital thrombolysis 76% preferred telemedicine with physician directed the pre-hospital thrombolysis. On the other hand 51% underestimated the aspirin role in mortality reduction while 51% overestimated that bleeds are directly related to thrombolysis.

**Discussion and Conclusion:** The majority of paramedics in Riyadh support the principle pre-hospital thrombolysis therapy although there is concern regarding the training and the risk of pre-hospital thrombolysis treatment and medico-legal issues.

## D - 05

### Hajj 2011: A Unique Learning Experience for Final Year Paramedics

*Saad Al Suwaidan, Dr. Abdullah Al Anazi*

**Introduction:** Hajj (a pilgrimage to Mecca in Saudi Arabia) is the epicenter of mass movement of millions of Muslims of enormous ethnic diversity. The huge attendance runs in figures unparalleled to any other universal mass congregation. People attending are exposed to extreme temperatures, crowds and congestion, which encourages spread of contagious diseases and occurrence of several other afflictions, besides, exacerbating chronic health conditions. These eventualities necessitate emergency admissions. Government of Saudi Arabia provides meticulous health care to all the pilgrims. Several healthcare professionals are engaged to take care of all these emergencies. Although there is always the attendance of regular staff from emergency departments, involving the final year paramedics in the routines of Hajj emergencies became a novel initiative during 2011 Hajj. This scheme provided enormous practical experience to the students and hence, it is thought worthwhile to present some of their experiences and examine, if such visits can become a routine.

**Method:** The study was conducted at Mina Aljesir hospital. The student paramedics (a total of 14) belonging to the Emergency Medical Services Program, College of Applied Medical Sciences, King Saud Bin Abdulaziz University for Health Sciences were given the tasks of managing different emergencies. During a period of seven days, the students had examined 3157 patients attending Mina hospital with complaints of different morbidities.

**Discussion and Conclusion:** It was a rewarding experience which provided them with on hand skills' practice working as a team with highly competent health care providers. It is desirable that such visits and participation in attending to emergencies during Hajj becomes a part of the curriculum in different colleges of health specialties throughout the Kingdom.

### D - 06

## A NEW BSRT PROGRAM IN SAUDI ARABIA : EFFECT OF STUDENT EVALUATIONS ON CURRICULAR CHANGES AND OVERALL IMPACT ON THE QUALITY OF PROGRAM

*Abdullah Al Qahtani, Mansour Al Alwaih, Taha Ismaeil*

**Introduction:** Student evaluation of a new academic program provides new important insights and feedback that may shape up the future curriculum and provides ideas on implementing new strategies . The Respiratory Care Program at King Saud Abdulaziz University health Sciences is a new program that adopted the curriculum from the Respiratory Care Program at South Alabama University (SAU). Our senior class adopted the unmodified curriculum from SAU between 2009 and 2010 and will graduate in June 2011. After completing their first year, they were asked to complete a survey evaluating the quality of the program and based on their feedback some changes have been implemented during the past academic year (20102011-).

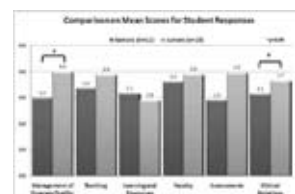
The primary objective of this project was to compare responses regarding the evaluation of the program quality between the junior and senior class in order to evaluate the success of implementing the changes made to the program during the last year.

**Methods:** We designed a 52-item comprehensive questionnaire to evaluate six different areas: management of program quality, teaching, learning resources, faculty, assessments and clinical rotations. A conventional likert scale was used to record the responses (1=strongly disagree; 2=disagree; 3=neutral; 4=agree; 5=strongly agree) .Twenty four (24) questionnaires (senior. n=11; juniors. n=13) were used for the descriptive analysis. A «t» test was used to compare groups and significant difference was defined as a p value < 0.05.

**Results:** There was a significant difference between juniors and seniors regarding their evaluation of the management of the program quality (p=0.01) and the clinical rotation (p=0.01). While the other comparisons did not reach statistical significance (learning and teaching p>0.05: learning resources p>0.55: faculty p>0.33: clinical rotation p>0.05), the mean likert scale score for the overall quality of the program improved by 10% (senior class = 3.2 vs. junior class = 3.7).

**Discussion and Conclusion:** Although the program is at a very early stage of development, the implementation of new changes based on student feedback during the first year has resulted in significant improvement of its overall quality.

**PRESENTATION TYPE: Method, device, or protocol evaluation.**



### D - 07

## Comparison between High Pressure liquid Chromatography (HPLC) and Chemluminescent Immunoassay (CLIA) for determination of serum level of 25 Hydroxy Vitamin D

*Abdulaziz Al Shahrani, Dr. Abdullah Al Anazi*

**Introduction:** Vitamin D insufficiency is associated with several diseases besides osteoporosis, osteomalacia and femur fractures. It documented recently is that adequate vitamin D level is necessary for optimal immune, brain, nerve and muscular function. Vitamin insufficiency is highly prevalent among Saudi population especially so among the females. This necessitate availability of reliable method to estimate its serum level and it is important and of significant consequence for clinical decision making to appreciate that there is between laboratory and interassay variation of sufficient size, and consequently our objective is to investigate the precision of High-Pressure Liquid Chromatography (HPLC) and chemiluminescent immunoassay (CLIA) which are used in our clinical laboratory of King Abdul Aziz Medical city (KAMC).

**Methods:** 32 patients with insufficient Vitamin D were included in the study. Serum vitamin D was assayed by HPLC **and** CLIA.

**Results:** Mean serum 25-OH D levels using CLIA and HPLC were 21 and 24 nmol/L respectively. Pair t-test showed that there is no significant difference between the two methods ( $P=0.403$ ) The association between the two test showed positive significant correlation ( $r=0.9$ ,  $P<0.01$ )

**Discussion and Conclusion:** All the validation characteristics parameters using CLIA technique are satisfactorily correlating with HPLC method for the quantitative determination of vitamin D. So, there is no significant difference between the two devices. CLIA assay method saves time, doesn't need Vitamin D preparation and gives us the sum of Vitamin D<sub>2</sub> and D<sub>3</sub> unlike the HPLC which is time consuming and needs Vitamin D preparation. One drawback of our study is the small number of cases. We recommend reconfirming these findings by estimation of vitamin D by the two methods on large scale sample.



## E- COM (King Fahad Medical City)

### E -1

#### Management of Recurrent Unicystic Maxillary Ameloblastoma in King Fahad Medical City (KFMC)

Abdullah Alkhudhayri, Khamis AlMufarji, Wafa AL Shakweer, Khalid Hussain AlQahtani, Dr. Khalid Hussain AlQahtani

**Introduction:** Unicystic Ameloblastoma (UA) of the maxilla is a rare tumor which expands locally causing significant facial dysfunction. The management of UA is controversial especially during initial diagnosis. Ameloblastoma is classified as benign tumor of odontogenic epithelium (i.e. ameloblasts or the outside portion of the teeth during development). It appears more commonly in the mandible than the maxilla. It was first recognized in 1827 by Cusack. This type of odontogenic neoplasm was designated as an adamantinoma in 1885 by the French physician Louis-Charles Malassez. It was finally renamed to the modern name ameloblastoma in 1930 by Ivey and Churchill. Ameloblastoma occurs in 3 variants: conventional (solid), unicystic and peripheral ameloblastomas. Of interest to us is Unicystic ameloblastoma (UA), which rarely occurs in the maxillary sinus. However, when it occurs, it results in lesions that can cause severe abnormalities to the face and jaw. Additionally, because of the occurring abnormal cell growth, it easily infiltrates and destroys surrounding bony tissues which demands a wide surgical excision to treat this disorder. To report successful management of UA at the left maxilla which was treated initially with enucleation and curettage, but the lesion recurred aggressively after 2 years causing destruction of the floor of orbit.

**Methods:** A 16 year old girl referred from a local hospital to King Fahad Medical City, Department of ENT and Head and Neck Surgery for the management of recurrent left side maxillary swelling. She was presented with history of left side cheek swelling that lasted 7 months and increased in size. It was associated with left eye protrusion, left side nasal obstruction and bloody stained nasal discharge. No other ENT complaint and no history of decrease vision or double vision were noted. She was seen in a local hospital and she underwent enucleation under general anesthesia 4 years earlier but the swelling recurred 2 years later. Also noted was left eye proptosis with normal eye movement in all direction and visual acuity. CT showed massive unicystic mass invading left maxillary sinus. She underwent surgical resection of left maxillary unicystic ameloblastoma, left total maxillectomy with preservation of the orbit via weber Fergusson approach and reconstruction using fibula free flap. The immediate postoperative period was uneventful. Histological sections from the surgical specimen revealed a cystic lesion lined by irregular strands of epithelium, bordered by columnar cells (palisading) that surrounded islands of cells resembling stellate reticulum (plexiform pattern). Islands of tumors within its fibrous capsule were also observed.

**Results:** Follow-up 3 months post-operatively showed full recovery with no evidence of

recurrence with excellent cosmetic outcome.

**Discussion and Conclusion:** The treatment of unicystic ameloblastoma of the maxilla remains controversial especially during initial diagnosis. Following a surgical treatment, especially conservative treatment, requires a long term follow-up as this type of tumor may recur after 58- years as reported in some literature. Also, to avoid recurrence, meticulous surgical excision of the tumor with tissue clear of disease is important. Aggressive curettage after enucleation should be avoided as this may implant foci of ameloblastoma deep into the bone. Careful pathological examination of the specimen is important to look for the presence of tumor islands in the fibrous capsule. For cases of unicystic ameloblastoma of the maxilla, aggressive treatment (complete surgical excision) is a better option to avoid recurrence.

## E-2

### Knowledge, Attitudes and Practices of Food Habits among Male Intermediate School Students, Riyadh, Saudi Arabia, 2012

*Abdulrahman ALOwaini, Jehad Al-Harbi, Suhail Kalantan, Abdulrahman AL Rabah, Abdullah AL Rehili, Nawaf Al-Hussain, Dr. Ahmed Bahnassy*

**Introduction:** Food habits refers to why and how people eat, which foods they eat, and with whom they eat, as well as the ways people obtain, store, use, and discard food. Individual, social, cultural, economic and environmental factors all influence people's eating habits.

**Objective:** To determine students' knowledge, attitude and practices about food habits among intermediate schools male students in Riyadh.

**Methods:** A cross sectional study of approximately 648 students were chosen randomly from five intermediate male schools (each school from one area and from each grade two classes) in Riyadh. Through a self-administered questionnaire that included questions on their knowledge, attitude and practices about food habits. Statistical analysis was performed using SPSS software (version 17.0).

**Results:** distribution of student who correctly answered the question about nutritional aspect. And there is sig. association between educational level and each of fiber, fat, and vitamin C. And there is misconception about carbohydrates, and fibers in most of student. the PHC as main source of knowledge in each of educational level in most of student. Around 810.2%, 10.9%, 8.5% respectively of student take FF daily, and 32.1%, 36%, 35.5% respectively once to twice per week for each level. One fourth of student in each level the right attitude about balanced nutrition. And major of student have good attitude about healthiest food. Around 14/ of student preferred fried food in each level. Around half of student in each of 2nd and 3rd level have good attitude about balanced diet, while quarter of 1st level student have good attitude about balanced diet. 9.9% of the students didn't drink milk at all while 42% of the students drinking milk more than three times/week. About half of the students have three meals or more (per day). Only 77% of the students wash their hands before meals. 12.8% of the students drink soft drinks more than 6 cans/week but only

9.7% of the students don't drink soft drinks at all. 27% of the students eating fruits and vegetables every day while 20.2% rarely consumed fruits and vegetables. Students who have their breakfast every day have less weight than those who didn't have it most of the time.

**Discussion and Conclusion:** We noticed there was inadequate knowledge about healthy foods among participating students. Daily breakfast intake has direct effect on weight reduction.

The main source of knowledge about healthy foods is primary health care.

### E- 3

#### Knowledge, attitude and practice among school students towards H1N1

*Faisal.I.Almohaileb, Abdullah.a.alfhaid, Abdullah.F.alkhodairy, Jasser Alharby, Naser altahtam, Ahmed Bahnassy*

**Introduction:** Swine influenza was first proposed to be a disease related to human influenza during the 1918 flu pandemic, when pigs became sick at the same time as humans. On June 11, 2009, the World Health Organization (WHO) declared that a global pandemic of H1N1 flu is underway. Measuring knowledge, attitude and practice in school students toward H1N1 is very crucial, not only to treat and manage Swine Flu (H1N1) but to prepare the society for further pandemics. The main intention of this study was to measure knowledge, attitude and practices (**KAP**) of school students of Riyadh toward H1N1 in 2010.

**Methods:** Cross-sectional study was used. A two-stage random sampling technique with proportional allocation was used to select 1290 students. First stage: 6 primary schools, 7 intermediate schools and 5 secondary schools were selected using systemic random sampling. Second stage: a stratified random sample with proportional allocation was used to select the required number of students from each educational stage. A structured pre-tested self administered questionnaire was given to the selected students to fill it after taking a verbal consent of them. Data were entered into SPSS version 16 program, Statistical analysis was carried out, and descriptive analysis and Qui-square were used for data analysis.

**Results:** The study sample was 1290 students with a mean age of  $14.7 \pm 2$  years, this study shows a significant difference between knowledge, attitude and practice and educational stage. Secondary school students have a significantly higher knowledge and Attitude toward H1N1 than the other two phases ( $p$  value = 0.0001, and  $p$  value = 0.003 respectively), while primary schools students have a significantly lower practice toward H1N1 than the other two phases ( $p$  value = 0.023). Moreover, the study showed that there is a difference in the leading source of information about H1N1 in different school stages, for instance, the leading source of information in primary school students was parents, and while in both intermediate and secondary school students the media was the leading source namely the TV.

**Discussion and Conclusion:** The authors of this study found that Health education programs should be implemented in the early phases of a pandemic to prepare the students and society for similar pandemic disease in the future may Allah forbid. Parent education is

very crucial to improve KAP among primary school students, while effective use of TV and media is important to improve KAP among intermediate and secondary school students.

#### E-4

### Risk Factors Of Depression Among Teachers In Male Secondary And Intermediate Schools In Riyadh 2011

Khalid Mohammed Abdulrahman Al.Shaiqi, Saleh Zaid Saleh Al.Zaid, Hatem Adel Ali Azzam, Majed Abdullah Al.Marshedi, Mohammed Abdulrahman Binsae, Dr. Ahmed Bahnassy

**Introduction::** An illness that involves the body, mood, and thoughts, that affects the way a person eats and sleeps, the way one feels about oneself, and the way one thinks about things. A depressive disorder is not the same as a passing blue mood. It is not a sign of personal weakness or a condition that can be wished away. **Objective:** To study the relation between non-school related factor and Depression among school teachers in secondary and intermediate schools in Riyadh 2011. To Investigate the relation between long working hours and Depression among school teachers in secondary and intermediate schools in Riyadh 2011. To study the relation between colleague conflict and Depression among school teachers in secondary and intermediate schools in Riyadh 2011.

**Methods:** Study design: The study design was Cross sectional Study. Sampling Size: Sampling size was 731 teachers. Sampling Technique: The study population was present in all secondary and intermediate teachers in the study time. Multi stage random sampling technique was used. Riyadh divided to 5 areas. 10 schools were chosen in each area, intermediate and secondary schools.

**Results:** It was found in our study 20% of school teachers in the studies group had depression. 84% of depressed teachers was married. There is no relationship between extra work hours and depression. On the other hand there was significant relation between colleges conflict and depression in those school teachers. Depression was also more in the teachers groups that live in rented house. The smoking teachers had depression more then non smoking.

**Discussion and Conclusion:** It was found in our study 20% of school teachers in the studies group had depression. 84% of depressed teachers was married. There is no relationship between extra work hours and depression. On the other hand there was significant relation between colleges conflict and depression in those school teachers. Depression was also more in the teachers groups that live in rented house. The smoking teachers had depression more then non smoking.

## E-5

## Analysis and Patterns of Childhood Injuries (014- years) at a Tertiary Hospital in Riyadh, Saudi Arabia

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**Introduction:** Injuries are important reasons for deaths in children. In KSA injuries cause 14% of deaths in children under 5 years of age. Determining the patterns and risk factors for child injuries are vital prerequisites for successful intervention strategies. The aim of this study is to analyze, rank and determine associated factors for children injuries seen in an emergency department at King Fahad Medical City in Riyadh, Saudi Arabia. **Objective:** To describe the patterns, characteristics and risk factors of childhood injuries (014- years) seen in Pediatrics Emergency Department at King Fahad Medical City, Riyadh, KSA during the years 2008-2009-

**Methods:** Setting : Pediatric ER KFMC. Study design : Retrospective-descriptive chart review. Study population : All medical records of pediatric cases under the category of injury and poisoning who visited the ER during the period (Jan,2008-Oct,2009) ( n= 7717). Data collection : Review of medical records for demographic data and injury characteristics. Statistical analysis: Data entry and analysis were done using SPSS version 17. Descriptive univariate analysis and Chi square for bivariate association of qualitative variable. T test was used for assessing differences in means quantitative variables. P value was set as < 0.05

**Results:** This study included 7717 patients. The mean age was 4.4+- years with almost half subjects(49%) aged 2 -4 years. Head-neck-face injury represents the highest frequency (30.9%), followed by the upper limb injuries (25.7%) then lower limb injuries (14.2%).. Within the age group of (09- years old), head injury in neck and face represents the commonest type (30.9%) , followed by upper limb injury (23.7%). Upper limb injury represents the highest type of injury among the age group of 1014- years (29.6%) followed by head injury (16.3 %). Males were significantly more affected than females ( 62% compared to 38% -p value = 0.003).

**Discussion and Conclusion:** Injuries particularly head, face and neck injuries are common among children with male significantly more affected than females. Preventive measures include protective clothes and appliances, keeping medications and chemicals and being careful when cooking or bathing a child .An integrated comprehensive intervention strategy involving home, schools and health authorities is needed.

## E-6

### **Pregnancy outcome of different Assisted Reproductive Technology methods in Saudi infertile females attending infertility clinic at King Fahad Medical City, Riyadh 20102011-**

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**Introduction:** Infertility affects approximately 1314%- worldwide of reproductive-aged couples. It is defined as the inability to conceive after one year of properly timed, unprotected intercourse. This definition is based on the cumulative probability of pregnancy (1). Failure to attain pregnancy could be a source of social and economical difficulties leading to family instability. There are now different strategies to overcome this problem. These strategies are collectively known as assisted reproductive technology (ART). In vitro fertilization (IVF) is the process of fertilization by manually combining an egg and sperm in a laboratory dish is one of widely use ART techniques. When the IVF procedure is successful, the process is combined with a procedure known as embryo transfer, which is used to physically place the embryo in the uterus (1). The second techniques of ART are Intrauterine Insemination (IUI) is a procedure which involves placing sperm inside a woman's uterus to facilitate fertilization (1). The third least use techniques is the so called Intracytoplasmic sperm injection,(ICSI). This technique involves maneuvers to pick up a single live sperm and inject it directly into the center of a human egg (2). Many studies had stated that IVF is more effective than IUI (35-4-). However, there is no similar study had been carried out in KSA. The main focus of this study was to find the success rate of different Assisted Reproductive Technology (IUI,IVF, IVF -ICSI) among infertile Saudi females that attended infertility department at KFMC 20102011-. This will be achieved by careful comparison of clinical pregnancies rate to miscarriages following assisted pregnancy and the rate birth.

**Methods:** In this cross sectional descriptive study, data from the records of all the infertile female who attended the clinic in the period between January 2010- January 2011 were included in the study. Our data collection method was based on check lists from the records. The check list used included (MRN, Age, Age group, BMI, RX protocol, Clinical Pregnancy, Miscarriage, Birth, Contact Number). Data analysis p value was carried out on SPSS and analysis program. Chi square test was used to find the relation between different variables (Clinical pregnancies, Miscarriages, Birth) and each of the different ARTs. Descriptive analysis was carried to get different parameters including; the mean and standard deviation for each of the age, BMI and IVF vs. IVF-ICSI. Pie charts were also used to demonstrate the age and BMI distribution. Ethical issues> including IRB approval, privacy of patients> data and not to use the data for other purposes have been carefully considered.

**Results:** The mean age for our study population (412 participants) was 29.66 years old and the mean BMI was 28.36Kg/m<sup>2</sup>. Our findings revealed that the highest percentage of the clinical pregnancies were from IVF-ICSI group (27.6%), and the lowest(16.3%) were from IUI group. Interestingly, women treated with IVF-ICSI showed the highest percentage of

miscarriages (16.7%) and also had the highest number of live births (50) in comparison to the two other procedures used. The maximum pregnancy percentage occurred at the 30 < 35 age group and in BMI obese group, while the minimum were in < 20 age group and in the BMI optimal group.

**Discussion and Conclusion:** We studied 412 infertile females who received different ART (IUI, IVF, IVF-ICSI). The analysis of our study proved that IVF-ICSI was the most effective method of all ARTs, due to overcoming male infertility factors (low sperm count, motility.. etc.) We found that the maximum pregnancy percentage occurred at the 30 < 35 age group and in BMI obese group, while the minimum were in < 20 age group and in the BMI optimal group, this might be because most of our population were from these two groups.

## E- 7

### Sessile serrated colonic polyps in a tertiary care hospital at King Fahad Medical City, Riyadh, Saudi Arabia 2008 - 2011: Prevalance and anatomic pathologic features.

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**Introduction:** Sessile serrated adenomatous (SSA) polyp is one of the five types of serrated colorectal polyps. It is recently recognized ,and was first described by Torlakovic and Snover in 1996 [4]. It's known for its association with malignancy [1,7]. SSA may develop into colorectal cancer in a pathway called microsatllite instability (MSI). This mutation will lead to what is called a mutator phenotype. with a consequence of mutations in genes regulating growth, differentiation and apoptosis of colonic epithelial cells. The growth of polyps was found to be mostly in the right side of the colon.

In Saudi Arabia, only one study was conducted to know the prevalence of serrated polyps. And due to the paucity of literature studying SSA in Saudi Arabia, we conducted a single center study to know the prevalence of SSA. More importantly, we were trying to find out any under recognized cases of SSA that happened to be incorrectly diagnosed as hyperplastic. Additionally, prevalence and features of other adenomatous and hyperplastic polyps were also considered.

**Methods:** The Anatomic pathology laboratory database at King Fahad Medical City, was searched from 2008 to 2011. A total of 265 cases (male cases:157 female cases:108) were identified and examined microscopically by a consultant pathologist. Polyps were classified histologically according to the descriptive morphologic criteria sited by Al-Daraji and Montgomery<sup>[11]</sup>. Four samples of mixed SSA/convetional adenoma cases, were stained for the following immunohistochemical antibodies: CK 7, CK 20, and p53.

**Results:** There was only one sessile serrated adenoma (0.4%) located in the left colon, with a size of less than 1 cm. Polyps were mostly found in ages between 6<sup>th</sup>-7<sup>th</sup> decades (46.0%). Conventional adenomas (tubular adenoma, villous adenoma, and tubulovillous adenoma)

constituted 86%, followed by conventional hyperplastic polyps (10.6%). All types of polyps were mostly singular and located in the left colon, except for the mixed SSA/conventional adenoma which were more frequent on the right. One traditional serrated adenoma two serrated tubular adenomas were also found. Immunohistochemical staining for p53 nuclear antigen was mostly moderately positive 34/ cases (75%). While CK 7 appeared negative in all the four cases, CK 20 showed weak positivity in 34/ cases (75%).

**Discussion and Conclusion:** Presence of one case of SSA could be due to the decreased expression of mutations leading to SSA in comparison to western countries, but our sample was only representative of a small portion of the Saudi population, since the study was conducted in a tertiary care hospital. Another explanation is the possibility of under recognition of SSA in our country.

## E- 8

### Prevalence of Visual Impairment Among Secondary School Male Students in Riyadh 2012

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**Introduction:** The term "Visual Impairment" can be defined as visual acuity worse than 618/ in the better eye. According to World Health Organization (WHO), there are more than 285 million people visually impaired worldwide. Globally, the major causes of visual impairment are uncorrected refractive errors, cataract and glaucoma.. To determine the prevalence of visual impairment among male secondary school students in Riyadh 2012. Also, to identify the risk factors of visual impairment and the misconceptions of contact lenses.

**Methods:** The design of this study is cross sectional. A sample of 661 secondary school male students from Riyadh, Saudi Arabia, has been selected based on the multi-stage random sampling technique with proportional allocation Data has been collected using self-administrated questionnaire including demographics, family history , visual acuity and associated factors. A Snellen E chart was used to measure the visual acuity. The diagnosis of visual impairment is based on the International Classification of Diseases (ICD-10) of four levels of visual function: mild or no visual impairment ( $\geq 618/$ ); moderate visual impairment ( $< 618/ - \geq 660/$ ); severe visual impairment ( $< 660/ - \geq 360/$ ); and blindness ( $< 360/$ ) in the better eye.

**Results:** The total number of participant in this research was 661 students with a mean age of  $16.9 \pm 1.06$  years., The prevalence of visual impairment was 12.3% (81 students). and (10.1%) with uncorrected refractive error. Only family history of visual impairment and uncorrected refractive error were significantly associated with visual impairments.. Students with severe visual impairment were diagnosed at an earlier age than moderate visual impairment The most common misconception about contact lenses is that they are bad for the health of the eyes and result in lower vision compared to glasses.



**Discussion and Conclusion:** In conclusion, the prevalence of visual impairment among secondary school male students in Riyadh was 12.3%. The study revealed that the most common risk factors of visual impairment were uncorrected refractive errors and family history of visual impairment.. Students think that contact lenses are harmful to eye and result in inferior vision acuity than glasses.

## E-9

### Pattern of Analgesic Usage and Knowledge of Side Effects among Adolescents Female Students, Riyadh, KSA.

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**Introduction:** Analgesics are group of drugs that are used to relieve pain. Analgesics are classified as narcotic that includes opioids and non narcotic that includes non-steroidal anti-inflammatory drugs (NSAID) [1]. Studies showed that the usage of non-prescribed analgesic is common than the usage under a medical supervision and it seems to be in an irrational way [3,9,10,14]. Studies on the knowledge of the adolescent analgesic users about the side effects of the medications showed poor and unclear knowledge. [3, 4, 5,6,7,8,11] The aim of the present study is to estimate the prevalence of analgesic usage and the knowledge of their side effects among females Saudi adolescents. This study could be the base for health education programs aiming to increase the awareness among this age group. To study the pattern of Analgesics usage and knowledge of side effects among female adolescents in governmental schools.

**Methods:** This is an *observational cross sectional study*. The data was collected by using self-administered questionnaire. The target population consisted of intermediate and secondary female student in Riyadh city, KSA. A multi stage stratified sampling design was adopted at the beginning of 2011. At the first stage, 8 schools were selected in which one class was chosen for each educational level using a simple random sampling design. All students in the selected classes were included in the study. The total number of selected students was 649 females.

**Results:** The mean age of the student was  $15.25 \pm 1.75$  years. Student from the intermediate school constituted 51.5%.

the Saudi single student constituted the majority. The study shows that self-administration of analgesics by female students was highly prevalent. 67% of student have used analgesics during the last month. The frequent analgesic used was the paracetamol (90.1%). 76.9% of the students use analgesics without medical prescription. Family was the main source of knowledge about the analgesic usage and their side effect. Most of the student had no knowledge regarding analgesics side effects.

**Discussion and Conclusion:** self-medication is widespread among adolescent girls in Riyadh, KSA. Their use was associated with the low knowledge about the medications side effects.

### E- 10

#### Relationship Between Second-Hand Smoking And Respiratory Dysfunction Among Male Secondary School Students in Riyadh 2012.

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**Introduction:** Secondhand smoking has two forms; side stream that comes from the end of a lighted cigarette and mainstream: smoke exhaled by a smoker .since smoking is prevalent among secondary school students, then non smoking students more exposed to second-hand smoke from friends. To determine the prevalence of second-hand smoking and to measure the difference in respiratory function among exposed and non-exposed students.

**Methods:** This is cross-sectional study among male secondary school students in Riyadh 2011. Multi-stage random sampling technique was used to select 739 students from the study population. Self-administered 114easured114aire was used which covered demographic data, personal and family history of smoking, passive smoking and respiratory disease. Also pulmonary function was 114easured for the participants using a spirometer. Statistical analysis: Descriptive statistics, bivariate and multivariate analysis as appropriate were used as statistical tools .P- value was set to be less than 0.05 throughout the study.

**Results:** The response rate was 98.3%. The results showed that 301(48.4%) were Saudi nationals, with mean age of  $16.790.98 \pm$  years. Prevalence of students who reported one or more smoking family member was 307(49%), 196(63.2%) of which reported that their smoking family member(s) smoke while they are in the same place, 317(50.6%) had smoking friends, the prevalence of those exposed to passive smoking was 250(69.4%) and the mean length of stay with smoking friends while they are smoking was  $2.62.42 \pm$  hours . There was a significant relationship ( $P=0.005$ ) between friends smoking and respiratory disease symptoms with a prevalence of 61.4%. There was also an increase prevalence of respiratory diseases (73.1%) among students who are exposed to passive smoking from their friends.

### E-11

#### Major Depression among Multiple Sclerosis Patients in King Fahd Medical City in Riyadh

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**Introduction:** Multiple Sclerosis (M.S.) is an autoimmune disease characterized by demyelinating lesions in the white matter in the central nervous system, which often creates cognitive and emotional changes in patients. The neuropsychiatric symptoms of MS are broad including depression; between 27% -54% of MS patients' have depression symptoms. Explanations for association between MS and depression, including: The psychosocial effects of MS disability, lesions on brain structures involved in regulating of mood state, presence of social support and side effects of interferon (IFN)- $\beta$  used in treatment, which may be associated with mood changes that can have a high-end Major Depression (M.D.) and

suicidal ideation. After the literature review, we found that no similar study was conducted in Saudi Arabia regarding the depression in MS patient. This encouraged us to conduct this study.

Our primary objective is to determine the prevalence of M.D. in M.S. patients in the study group. The secondary objectives are: risk factors & other associations determined according to the presence or absence of M.D. according to the MDI score in the same cohort group of M.S. as secondary objectives.

**Methods:** A cross sectional survey in 2011 was made in a cohort of more than 65 patients with confirmed diagnosis of M.S. followed up in the National Neuroscience Institute at King Fahad Medical City in Riyadh which is a nationwide referral center. Predesigned and tested (piloted) questionnaire was used combining the Major Depression Inventory (MDI) score and questions about gender, marital status, occupation, education, social problems & support, residency, onset of disease, types of MS, medications and their side effects. The Prevalence of M.D. and risk factors associations were made.

**Results:** Currently the study is in progress and recruiting, final results will be presented at the meeting.

**Discussion and Conclusion:** Currently the study is in progress and recruiting, final results will be presented at the meeting.

## E-12

### Pattern of Food Habits Among Secondary School Male Students In Riyadh 2012

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**Introduction:** The term eating habits (or *food habits*) refers to why and how people eat, which foods they eat, and with whom they eat, as well as the ways people obtain, store, use, and discard food. Individual, social, cultural, religious, economic, environmental, and political factors all influence people's eating habits. **Objective:** To Determine Prevalence of Food Habits among secondary school students in Riyadh 2012. To determine the risk factors of bad food habits. To List the characteristics of the students with Bad food Habits.

**Methods:** Cross-Sectional study, Sample Size: 631 Secondary school male students, sampling techniques: Multi stage random sampling technique

**Results:** The result show a high percent of soft drinks consumption among Student population is 91.3 The students who consume soft drinks, drink less cups of water than non drinkers but differences were not significant. The mean Soft Drink :yes 4.62, no 5.27

The BMI of first grade < third grade < second grade, and the differences were significant Non Saudi students eat breakfast and lunch more than Saudi, no significant.

Saudi students eat dinner more than non Saudi, no significant.

Saudi students drink soft drinks and eat candies more than non Saudi, no significant.

**Discussion and Conclusion:** Prevalence of consuming soft drinks among population is high

(about 91%).

The students who consumed more soft drinks they consumed less water.

The Saudis consume more soft drinks and Less breakfast eating than non Saudis.

### E-13

## Prevalence, Patterns and Characteristics of Cigarette Smoking among Male Intermediate school in Riyadh, 2012.

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**Introduction:** The study attempts to provide information on the prevalence and determinants of cigarette smoking among male intermediate school students in Riyadh, Saudi Arabia. Objective: Determine the prevalence of smoking among intermediate school students in Riyadh. Assess the patterns and characteristics of smoking among intermediate school students.

**Methods:** The Study design has been cross sectional study in all intermediate male students in Riyadh, 2012. Using a modified globe youth tobacco survey (GYTS) questionnaire among 615 students and predicted the prevalence. And the Sampling techniques: has been Multi-stage random sampling. Random class has been chosen from each school grade.

**Results:** The study determined the who ever smoked at 29.6% (182 students) and the who currently smoke is 18.5% (182). Association between the who ever smoked and grades showed that the First grade was the least percentage conducted at 22.4% (44 students), Second grade 33.8% (81 students), Third grade 33.6% (57 students).39 % of who ever smoked students was thought that smokers have more friends. 73.2% of the never smoked students had parents that also never smoked.

**Discussion and Conclusion:** Smoking is prevalent among the intermediate school students of Riyadh as it has increased in the last five years. First grade is less than second and third grade, its increasing in the south and west regions of Riyadh and most of the student smokers get their cigarettes from the mini markets. Most of those who tried smoking all their closest friends usually smoke while in the other hand those who didn't try smoking we found that most of them None of their friends smoked. Health education and preventive strategies should be instituted additional to current MOH efforts to control the problem.

## F. Postgraduate Residency Program

### F-1

#### Intracranial Calcifications, Microcephaly, and Seizure: If Not Congenital Infection, What could it be?

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**Introduction:** Intracranial calcification has multiple causes .The most common cause is congenital infection with cytomegalovirus or toxoplasmosis .However, other causes have been recognized where similar picture of congenital infection have been seen in absence of confirmative positive TORCH screen .Many cases have been reported worldwide .These cases shared the same presentation and called an autosomal recessive congenital infection- like syndrome or pseudo- TORCH syndrome.

**Methods:** We collected a data from total 7 patients from king AbdulAziz Medical City sharing the same manifestation which resemble congenital TORCH syndrome without positive screen test, and we reviewed the literatures of reported cases worldwide.

**Results:** In our cases we found that they are sharing almost the same manifestation of congenital microcephaly, seizure, ± hepatosplenomegaly, abnormal radiological finding of intracranial calcification and cataract in one patient, which resemble the congenital intrauterine infection despite negative TORCH screening.

**Discussion and Conclusion:** Our study is considered a continuation of other reported cases. The aim is to find the genetic causes of such syndrome in order to help in genetic counseling of families, and to make pediatricians and neonatologists aware about this rare entity.

**Table 1:  
Results**

Features	FAMILY I		FAMILY II			FAMILY III	FAMILY IV
	Pt 1	Pt 2	Pt 1	Pt 2	Pt 3	Pt 1	Pt 1
<b>Age at presentation</b>	6m	1½y	10y	5y	14 m	3y	birth
<b>Consanguinity</b>	-	-	+	+	+	-	+
<b>Sex</b>	M	M	M	F	F	F	F
<b>microcephaly</b>	+	+	+	+	+	+	+

<b>Spasticity</b>	+	+	+	+	+	+	+
<b>Seizure , EEG</b>	+	+	+	+	+	+	+
<b>Calcification</b>	+	+	+	+	+	+	+
<b>Hepato-splenomegaly</b>	-	+	-	-	-	-	-
<b>Abnormal LFT</b>	-	-	-	-	-	-	+
<b>Petechial rash</b>	-	+	-	-	-	-	-
<b>Thrombocytopenia</b>	-	+	-	-	-	-	+
<b>Eye/optic fundi</b>	N	N	N	N	N	N	Cataract
<b>CMV IgM</b>	-	-	-	NR	-	-	-
<b>IgG</b>	-	+	-	-	+	-	-
<b>Urine culture</b>	-	-	-	-	-	-	-
<b>Toxoplasma</b>	-	-	-	-	-	-	-
<b>Metabolic screen</b>	N	N	N	N	N	N	N

## F-2

### The Effect of Vitamin D3 Supplementation on Glycemic Control in Type 2 Diabetic Patients having Suboptimal Vitamin D level, In an Open label, Randomized Control Trial

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**Introduction:** Recently, there is accumulating evidence to suggest that altered vitamin D and calcium homeostasis may play a role in the development of type 2 DM. The aim of the current study was to evaluate and validate the effect of vitamin D supplementation on glycemic control in the form of Glycated hemoglobin and fasting blood sugar in type 2 DM

**Methods:** Randomized controlled clinical trial. The study trial passed through two phases. Phase one: screening of diabetic patients to estimate the prevalence of suboptimal vitamin D level. Phase two: random allocation of diabetic patients with suboptimal vitamin D level (detected in phase one) to either vitamin D3 supplement (intervention or treated group) or

to no vitamin D3 supplement (control group).

**Results:** In the current study, 248 type 2 diabetic patients had been screened for vitamin D deficiency. The great majority of diabetic patients had suboptimal level of vitamin D (98.4%). Two hundred Diabetic patients out of 248 with suboptimal level of vitamin D were equally and randomly assigned to vitamin D supplementation group or control group. The duration of follow up was three months, from randomization till the end of the study. The comparison between different parameters before and after treatment with cholecalciferol in the treated group showed that vitamin D level had been increased significantly after treatment, from 24.96 nmol/L to 82.80 nmol/L,  $P < 0.001$ . Diastolic blood pressure has been decreased significantly after treatment, from 76.43 mm/hg to 73.25 mm/hg,  $p = 0.021$ . There was no statistically significant difference in other compared parameters in the treated group, after three months of treatment with cholecalciferol.

**Discussion and Conclusion:** The administration of vitamin D did not significantly improve type 2 DM indicators (glycosylated haemoglobin and fasting blood glucose), lipid profile of type 2 diabetic patients and their BMI in three months.

### F-3

## Depression and Anxiety among Parents and Care Giver of Autistic Spectral Disorder (ASD) Children

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**Introduction:** It has been commented that parents/care givers of children with Autism Spectrum Disorder (ASD) experience greater levels of stress, anxiety and depression than parents/care givers of children without this particular developmental disorder. To evaluate the presence of depression and anxiety in a group of parents/care givers of ASD children in comparison to a group of parents/care givers of normally developing children.

**Methods:** This is a comparative cross-sectional study. Parents/care givers of at least one child diagnosed with autistic spectral disorder were called "cases" group recruited via , Saudi Charitable Society of Autism Families in Riyadh and Autism Clinic in Pediatric out-patient clinic in King Fahad National Guard Hospital, King Abdulaziz Medical City (KAMC)- Riyadh and parents/care givers of normally developed child were called "control" group recruited from Well Child Clinic at King Abdulaziz Medical City, Riyadh. Self reported questionnaire was utilized containing questions regarding demographic data as well as the Arabic version of hospital anxiety and depression (HAD) scale.

**Results:** The study included 100 parents/care givers, 50 of them were cases while the other 50 were control. More than 50% of the control group was in the age group 2630- years (56%) while 42% of cases were in the age group 3135- years. The mean age of Autistic children was  $5.243.13 \pm$  years. Time lapsed since Autism diagnosis was over three years in exactly one-third of cases. 22% percent of cases and only 2% of control parents/care givers had history of psychiatric problems. This difference was statistically significant ( $P = 0.002$ ). Similarly, 16% of

cases compared to 4% of controls gave history of visiting a psychiatrist or psychologist. This difference was statistically significant ( $P=0.046$ ). The mean depression score was significantly higher among cases as compared to controls,  $p<0.001$ . Similarly, the mean anxiety score was significantly higher among cases as compared to controls,  $p<0.001$ .

**Discussion and Conclusion:** Autism is associated with burden and stress for parents/care givers of the affected child. The demands placed by the disability contribute to higher overall incidence of depression and anxiety among parents/care givers and adversely affects family quality of life.

#### F-4

### Higher EEG Alpha Frequencies Observed among the Better-Performing First-Year Male Medical Students

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**Introduction:** The objective of the study is to investigate the relationship between the academic performance of first-year male students at the College of Medicine and their mean alpha frequency.

**Methods:** Classical EEG recording was performed on 107 healthy, non-epileptic, first-year male medical students. Mean alpha frequencies were correlated with the marks of those students who received either an A or an F grade in four academic courses (Biology, Physics, English, Chemistry), as well as the overall mark for each student.

**Results:** A statistically significant positive correlation was found in the data, with correlation coefficients between 0.2 and 0.5. The highest correlation coefficients for Chemistry, Physics, Biology, English, and the overall mark were 0.39, 0.40, 0.40, 0.53, and 0.33 in the leads F3-C3, T5-O1, F4-C4, T5-O1, and F3-C3, respectively.

**Discussion and Conclusion:** Academic performance reflects or is affected by the predominating frequency of alpha waves. In general terms, the higher the frequency, the better the academic performance. Various cognitive tasks appear to be associated with elevated alpha frequencies in certain brain regions. Performance varies from course to course depending on the nature of the cognitive skill involved. High performance in Biology, generally associated with memorization, showed the strongest positive correlation at F4-C4. English and Physics, generally associated with linguistic and computational skills respectively, showed the strongest positive correlation at T5-O1.

**Significance:**

This is the first study to investigate EEG differences among first-year male medical students in terms of their academic performance.



## F-5

**Possession by 'Jinn' as a cause of epilepsy (Saraa): a study from Saudi Arabia***Dr. Ahmad Abdulaziz Abulaban, Dr. Taher Abeid**King Abdulaziz Medical City, Medicine (Neurology) Department*

**Introduction:** Epilepsy has been linked to divine, demonic and supernatural powers throughout its long history. This study was conducted to explore if misconceptions such as possession by demons (Jinns) are still believed to be a cause of epilepsy among educated Saudis today.

**Methods:** The study was conducted using a structured questionnaire to address familiarity, sources of knowledge, and depth of knowledge on specific aspects of epilepsy

**Results:** Responses from 398 subjects were included in the results analysis. The majority of the cohort was familiar with epilepsy. In 23/ of the subjects, knowledge relating to epilepsy was obtained from friends and relatives. 172 (43.1%) members believed that epilepsy is a psychiatric disease, whereas 62 (40.3%) of the school teachers asked, and 123 (50.4%) of the students in the study considered possession as a cause of epilepsy. The majority of the cohort believed medical treatment for the condition exists in spite of the fact that a significant number believed that faith healers and traditional medicine are of help in treating epilepsy.

**Discussion and Conclusion:** Jinn possession is still believed to be a cause of epilepsy in Saudi society even among fairly educated people. This finding emphasizes the urgent need for public education campaigns that should be implemented at all levels of education.

Keywords: Jinn, Possession, epilepsy, School teachers, Saudi Arabia

## F-6

**The Impact of "Admit No Bed" and Long Boarding Times in the Emergency Department on Stroke Outcome.***Dr. Ahmad Abdulaziz Abulaban, Dr. Ali Al Khathaami**King Abdulaziz Medical City, Medicine (Neurology) Department*

**Introduction:** Long boarding time (BT) in emergency department (ED) due to "admit no bed" situation is a challenge for most institutions. Due to complexity, stroke care may not be effectively delivered in ED; hence, we speculated that prolonged BT might predispose to adverse events.

**Methods:** Retrospective review of stroke patients presented to ED from 2007 to 2010. We excluded thrombolysis cases and those deemed critically ill. We collected time of stroke onset, ED arrival, decision to admit and arrival to ward. BT was defined as time of arrival to ward minus time of decision to admit. Primary outcome (PO) was defined as a composite of mortality and/or any of post-stroke complications.

**Results:** We included 300 patients with mean age ( $\pm$  SD) of 69 years ( $\pm$ 12), and 66% were men. Risk factors were hypertension (81.7%), diabetes (65.3%), hyperlipidemia (27.7%), smoking (7.3%), heart failure (HF) (7.3%) and atrial fibrillation (AF) (7.7%). PO occurred in 37.7%. No association between BT and PO (OR= 0.9,  $p$  = 0.3) or any of the secondary outcomes: death (OR=0.97,  $p$  =0.5), severe disability (OR= 0.97,  $p$ =0.3), pneumonia (OR=1,  $p$ =0.9), UTI (OR=1,  $p$ =0.9), or neurological deterioration (OR=0.8,  $p$ = 0.1). Multivariate analysis included gender, age, stroke severity, subtype, hypertension, diabetes, Coronary disease, AF, HF, onset to ED, BT and ED wait time; only moderate to severe stroke, HF, and previous stroke predicted poor outcome.

**Discussion and Conclusion:** Although “admit no bed” was not associated with adverse effects, results should be interpreted with caution, and early admission to stroke unit should be encouraged.

## F-7

### An Unusual Combination of Extrapulmonary Manifestations of Tuberculosis in a Child

*Dr. Abdulnasir Al-Otaibi, Dr. Maha Almuneef, Dr. Tahir Hameed*

**Introduction:** Tuberculosis (TB) is a serious global problem. The diagnosis of TB in children is often challenging because of the paucibacillary nature of the disease. Furthermore, TB can mimic a wide variety of diseases. We present the case of an unusual combination of extrapulmonary manifestations of TB to increase the awareness of uncommon types of TB, their manifestations and the related management in children.

**Methods:** We report a case of a 10 year-old girl who presented to the emergency department with acute abdominal pain. She was diagnosed to have extrapulmonary tuberculosis (TB) with multifocal osteomyelitis of the spine and ribs, peritonitis and intestinal involvement. We describe the clinical presentation of this unusual constellation of the disease in absence of pulmonary involvement in a child, and discuss diagnostic challenges and treatment of these rare forms of TB.

**Discussion and Conclusion:** TB can present in a variety of ways, with either acute or chronic symptoms and with or without pulmonary involvement. A high index of suspicion is required for early diagnosis of these unusual and serious forms of TB even in areas where TB is endemic. With the world becoming a global village, such patients may also present to health care institutions in countries where TB is not traditionally observed.

## F-8

**Diffuse Xanthogranulomatous Pyelonephritis Caused by Community-Associated Methicillin-Resistant *Staphylococcus Aureus* in a Neonate**

Dr. Abdulnasir Al-Otaibi, Dr. Mohammad Al-Shaalan, Dr. Saud Al-Jadaan,, Dr. Khaled Alsaad

**Introduction:** Xanthogranulomatous pyelonephritis (XGPN) is a rare type of kidney infection characterized by the infiltration of foamy macrophages, giant cell formation, and a granulomatous reaction. Renal calculi, obstruction, and infection with Gram-negative bacilli contribute to the development of this type of lesion. Community-Associated Methicillin-Resistant *Staphylococcus Aureus* (CA-MRSA) is an extremely rare cause of XGPN. A review of the English-language literature revealed only one case of XGPN due to infection with CA-MRSA, which was reported in an adult HIV-positive patient.

**Methods:** We report a case of a neonate who was referred for the evaluation and management of a left renal mass. Findings on computed tomography scan were suspicious of a malignant kidney neoplasm. Patient underwent nephrectomy. Cultures from the perinephric purulent discharge grew MRSA that met the CDC criteria for CA-MRSA. Histopathological examination confirmed Xanthogranulomatous pyelonephritis and numerous abscesses of varying size.

**Discussion and Conclusion:** To the best of our knowledge, this is the first case report of XGPN caused by CA-MRSA in the pediatric population and it emphasizes the expanding spectrum of illness caused by this pathogen.

## ***G. Jeddah College of Medicine-Undergraduate and Masters in Medical Education***

### ***G-01 (masters in medical education)***

#### **Learning styles and physician's satisfaction with learning activities**

***Dr. Hatim Al Jifree, Prof. Mohi Magzoub***

**Introduction:** The residency training programs are an essential phase in the professional development and preparation of physicians to practice as a safe and competent professionals . Learning styles are various approaches or ways of learning. They involve educating methods, particular to an individual, that are presumed to allow that individual to learn best. learning styles may have a role, as the understanding of resident>s learning styles may facilitate instructional rapport between residents and attending physicians and hence improve resident>s academic performance. Also learning styles may predict exam scores. Assimilators scored significantly higher than the other three learning styles on the theoretical exam and in their course grade. This study investigated whether learning styles associated with physician's satisfaction with the educational activities. Physician's learning styles classified according to Kolb Learning Style Inventory, and physician's satisfaction tested by a valid student>s satisfaction questionnaire .

**Methods:** This study conducted in Obstetrics & Gynecology Department in King Abdulaziz Medical City in Jeddah that belongs to Saudi Arabian National Guard Health Affairs. The study used Learning Style Inventory (LSI) (Version 3.1) by David Kolb. it used a Modified student>s satisfaction questionnaire to investigate the physician's level of satisfaction with the academic activities. It covered all the 36 physicians at the Department of Obstetrics and Gynecology.

**Results:** Most of physicians who are (Assimilator) in their learning style scored very low in their level of satisfaction in comparison to other learning styles, but the clear distinction and the statistically significant difference where between (Assimilator) and (Accommodator) groups in the areas of satisfaction with Academic Theoretical, Facilities in the department and the Environment in the department.

Also (Assimilator) group showed statistically significant difference with (Accommodator) group in the area of total Academic satisfaction and in the overall satisfaction level in all themes.

**Discussion and Conclusion:** Assimilator scored low in their level of satisfaction to other learning styles, such conclusion can>t be final. Physicians with low satisfaction score may change and evolve their learning style over time. The majority of physicians in the department «Accommodators» are functioning very well with each other. Also this conclusion can>t be final due to small sample size. Further study with larger sample size in another similar Obstetrics & Gynecology residency training program like the one in King Abdulaziz Medical City in Riyadh may corroborate such findings.

### *G-02 (Masters in Medical Education)*

## **The orthopedic surgery preparatory exam course (OSPEC) measuring residents' satisfaction and perceptions through video ethnomethodology and survey analysis**

***Dr. Omar Batouk, Dr. Tagreed Justinia***

**Introduction:** Saudi Orthopedic Training in Saudi Arabia has changed the way that residents are assessed. Scenario cases are used instead of real patients during the assessment.

These changes were not received well by the residents. The OSPEC specifically addresses these needs in Saudi Arabia. The aim of this study to investigate effectiveness, perceptions and satisfaction of Residents with the OSPEC course. Also to examine its strengths and weaknesses, and to assess if it helped them prepare for their Board exam.

**Method:** Purposive sampling. R5 residents enrolled in orthopedic surgery residency training program in Saudi Arabia (12 candidates). 8 experts were used for feedback to the performance of the individual. Quantitative : Questionnaire survey was distributed among all participants after the course and real final exam. Qualitative - Ethnomethodology analysis of video recordings for Pre and Post Mock exam.

**Results:** Participants has a general positive experience with the course. Participants performance in the post mock exam were improved in communication skills and showed less anxiety. Evaluation analysis of pre and post exam showed improvement in the assessed criteria (eye contact, vocal projection, gesture...etc.)

**Discussion and Conclusion:** The overall findings show that the participants had a positive experience with the course. They generally perceived the course to be useful in helping them to prepare for their Board exam and were generally satisfied with the course. The participants viewed the strength of the course in providing a real simulated experience. The participants viewed the weakness of the course in its duration, and generally requested more days to be added to the course. The participants showed better performance and items under the checklist includes ( gesture, eye contact, voice projection and etc.). It showed as well the improvement of communication skills and decreasing anxiety and adding more confidence to the residents.

The Residents' Satisfaction and Perception for OSPEC course was generally positive. The communication skills and confidence were noticeable when comparing the pre with the post mock exam. The performance improved and this due to reduction of anxiety or better familiarity with the exam environment.

### *G-03 (Masters in Medical Education)*

## **The PICO Round”: The perceived challenges and effectiveness of an educational activity to teach residents evidence-based practice in the clinical setting**

*Faden Y, Justinia T, AlKadri H*

**Introduction:** Daily handover meetings serve as a means for continuity of patient care and also as an educational activity for training junior staff. During these meetings, clinical questions arise. Residents face difficulties in formulating answerable clinical questions, searching for their answers, and assessing their level of evidence. The «PICO Round» was developed to resolve this problem. This study was conducted to investigate how residents perceive the challenges and effectiveness of the PICO round as an educational activity to learn evidence-based practice in the clinical setting.

**Method:** A phenomenographic qualitative research was conducted in which 11 residents were interviewed (after purposive sampling) about their experiences with the PICO round. Face-to-face semi-structured interviews were carried out. Interviews were transcribed and thematically analyzed.

**Results:** Four categories of description were identified: challenges, effectiveness, impact on education, and impact on practice. Under each of these categories, there were 24 subcategories as illustrated in the table.

**Discussion and Conclusion:** The categories of description in the outcome space reveal distinctive ways in which the residents have experienced the PICO round. They are related to each other in a systematized and hierarchical way, which reveals both the residents' increasing awareness of the PICO round, and the range of the residents' experiences of the PICO round. The PICO round was perceived by the residents to be effective in improving confidence levels, increasing awareness of levels of evidence, and updating their knowledge. The PICO round was also perceived to have an impact on education with positive views regarding it as an activity that facilitates the acquisition of the Scholar Role. All residents experienced this activity to have an impact on changing their practice.

### **Recommendations:**

The PICO Round could be done more frequently by residents. Junior residents need to be formally guided prior to assigning them to present in these rounds. Consultants who raise questions in the meetings should follow it up with the resident who will present. The PICO Round has been found to be a useful educational activity that could be implemented in other medical departments.

**G-04****Cisplatin – A Chemotherapeutic Agent***Hassan Khayat and Mohammed Hmoud*

**Introduction:** Cisplatin has been found to be one of the most effective anticancer drugs due to its cytotoxic activity. The effectiveness of the compound, which was discovered in 1960s, is still utilized in treating solid tumors up till now.

**Methods:** This study was made of five articles. In fact, the article «Cellular Responses to Cisplatin-induced DNA Damage» was the most beneficial one with regards to information gathering. All in all, we initiated our study by introducing cisplatin and then talking about general aspects concerning cellular effects and clinical use and other aspects as well.

**Results:** Cisplatin, as an anti-cancer drug, proves its worth in the treatment of solid tumors such as testicular, head, cervical, ovarian tumors and small cell lung cancer. Generally, there are factors that affect cisplatin mechanism of action either by enhancing its cellular effect or by inhibiting it. In the cellular scale, it undergoes many biochemical transformations aiming to damage the DNA structure, triggering many transduction pathways and ultimately leading to apoptosis.

**Discussion and Conclusion:** Cisplatin is one of the most effective chemotherapeutic drugs for its well-known efficacy and affinity toward the cancer cells. Even though cisplatin is widely used in treating cancers, it has some side effects.

**G-05****Medication Errors: Causes and Prevention***Abdulaziz Aldakhil, Abdulaziz Albalawi, Abdulrahman Algain*

**Introduction:** Nowadays physicians are prescribing medications to patients in large quantities, this increases the probability that a medication error will occur in one stage of the process. The cause of medication errors can be from the physicians, pharmacists, nurses, or even the patients themselves.

**Method:** The paper was written after accessing and reading reliable articles available on the web. The main sources that were used for this article were Pub med database, medicine.com, National Coordination Counsel for Medication error reporting and prevention.

**Results:** It was found that there are many methods to reduce medication errors. One technique to prevent them from the physicians' side is by using IT, for example, automated dispensing machines get the orders of medications from the doctor, and then the machine fills in the prescription with the drugs being ordered and dispense it. This reduces the error of dispensing a wrong medication from the physician's side. Another way is that the patient can help preventing medication errors, for instance, they can tell the doctor about any drugs being taken currently or previously. This will prevent serious and undesirable interactions.

**Discussion and Conclusion:** Medication errors are becoming more serious and prevalent with time, most if not all of them are easily prevented, for example, the error –poor

handwriting-, is easily prevented with using computerized physician order entry. People must have a clear idea about the medication they take, what it is used for, and other instructions, and health care professionals moreover need to make sure what medication they prescribe and dispense.

### G-06

#### The effect of MEK I/II inhibitor u0126 on ICER expression in gonadotrope cells

*Ahmad Khogeer, Supervised by Iain Thompson PhD*

**Introduction:** This research focuses on the HPG axis. The aim of this research is to identify proteins that are implicated in the expression of the transcription factor ICER, which plays a crucial role in the regulation of FSH $\beta$ .

**Methods:** L $\beta$ T2 gonadotrope derived cells are treated with 0,12,24 hr GnRH exposure and 0.5 $\mu$ M, 5 $\mu$ M, and 20 $\mu$ M of u0126, an inhibitor of MEK I/II.

**Results:** The results show that the ICER expression decreased in a manner inversely proportional to the amount of 0126 in the samples. This indicated that MEK is directly implicated in ICER transcription.

**Discussion and Conclusion:** ICER expression is controlled by a complex system of reactions between different proteins, hormones and enzymes. In the future, this research could be expanded further by investigating the implication of other proteins, and by investigating how these proteins are regulated in depth.

### G-07

#### Cannabis Consumption

*Mohammad Haneef, Mohammed Turkistani and Moyassar Karami*

**Introduction:** The controversy about cannabis effects and the fact that it is the most consumed illicit drug globally motivated us to search about the medical effects of its consumption

**Method:** We mainly used Pubmed database to get scientific papers. We gathered the information and discussed the results.

**Results:** We found about the short and long term effects of cannabis, addiction potential, withdrawal symptoms, and its applications in medicine.

**Discussion and Conclusion:** The medicinal aspects of cannabis are too high to ignore, and the risks that are associated with its consumption are insignificant, especially when compared to other legal drugs on the market.



**G-08**

## **Ethics in Research**

***Yousef Marzuk, Supervised by: Dr. Hatim Aljifree***

Abstract

We all learn certain ethics and morals while we grow up. Every field has its ethics practiced by its own people. Below I discuss some of the most important ethical concerns involved in research. Honesty, confidentiality and not to falsify or fabricate results are essential when we talk about research. On the other hand, subjects also have rights, such as their consent, and they need to be informed of any potential risks and benefits.

## H-Jeddah CON

### H - 01

#### ONLINE SEXUAL SOLICITATION: MOTHERS' AWARENESS OF THE RISK FACTORS

*Mashail Mohammed Ramadan Al Hawsa, Rawan Faisal Asloob, Zainab khaled Al Jarrari, Fatmah Aydh Al Sulmy, Asrar Kamal Bahwaini, Rawan Ahmed Al Zahrani, Hadeel Jamil Al Mowallad*

**Under supervision:** Dr. Wafaa Elarousy

**Introduction:** The past decade has seen rapid development and exponential growth in the use of electronic, computer-based communication and information sharing via the internet. Computers and related networking technologies have created new opportunities for crime, involving crime of sexual abuse of children. Risks were higher for those who used the internet more frequently, participated in chat rooms, engaged in risky behavior online, and talked to strangers online. The purposes of the study were: To describe the mothers' awareness of the risk factors of children online sexual solicitation. And to describe the association between the mothers' awareness of the risk factors of children online sexual solicitation and mothers' age, education and occupation.

**Methods :** A descriptive design was used. A self-administered questionnaire was developed by the researchers. Convenient sample of 100 mothers of children aged from 6-18 years were included in the study.

**Results:** In the current study mothers reported that placing of computer in the child's room, isolation of the child most of the time in his room using the internet, absence of rule of using the computer, using internet social networks, using internet more than 3 hours and having personal profile (85%, 83%, 83%, 54%, 47%, 40% respectively) places the children at risk for online online sexual solicitation.

**Discussion and Conclusion:** The majority of mothers agreed that placing of the computer in the child's room, isolation of child most of the time on his room using the internet, absence of rules for using computer places the children at risk for online sexual solicitation. Mothers should be prepared to educate their children about online sexual solicitation and to encourage them to disclose and report such encounters and to talk about them.

*H - 02***EMOTIONAL ABUSE AMONG CHILDREN***Moradi AL-Jadaani****Under supervision:******Dr. Wafaa Elarousy***

**Introduction:** Emotional abuse is the most hidden and underestimated form of child maltreatment. It does not leave physical injuries and its ongoing nature usually means there is no crisis which would precipitate its identification by the health, welfare or criminal justice systems. The consequences of child emotional abuse can be devastating and long-lasting, and include: increased risk for a lifelong pattern of depression, anxiety, low self-esteem, inappropriate or troubled relationships, or a lack of empathy. The purposes of the study were: To determine the incidence of emotional abuse of children as reported among studied group, to describe forms of rejecting, ignoring and terrorizing emotional abuse as reported among studied group, to describe the association between the forms of emotional abuse and the biographic variables of gender and age.

**Methods:** Descriptive correlational design was used. A self-administered questionnaire was developed by the researcher. Convenient sample of 60 children aged from 12 -18 years were recruited from 3 malls in Jeddah.

**Results:** In the current study 90% of children who participated in the study reported at least one form of rejecting emotional abuse and 61.7 % of them reported at least one form of ignoring or terrorizing types of emotional abuse. A strong relationship with the mother was reported by 73.3% of children and 53.3 % of them reported that they have a strong relationship with father. Chronic illness was positively correlated with terrorizing emotional abuse and the correlation was statistically significant ( $r= .431$   $p<0.01$ ). Furthermore, There was a statistically significant negative correlation between mothers' relationship with child and ignoring and terrorizing emotional abuse ( $r= -.351$   $p<0.01$ ,  $r= -.292$   $p<0.05$  respectively).

**Discussion and Conclusion:** The study revealed that ninety percent of children who participated in the study reported at least one form of rejecting emotional abuse and 61.7 % of children reported at least one form of either ignoring or terrorizing emotional abuse.

**Recommendation**

1. Need more researches about indicators and consequences of children emotional abuse.
2. Increase awareness of community as a whole and the parent in particular about children emotional abuse.

### H-03

#### **Breast Feeding Attitude Among Saudi Nursing Student**

*Ebtsam AL-Mashni, Manal Nawawi, Aqilah Qawariri, Hala Mandily, and Rana Al-Gedaani*

*Supervised By:*

*Dr. Abeer S Eswi*

**Introduction:** Breast feeding is an important component in the lives of both mother and the baby. Aim of the current study was to assess the nursing students attitude toward breast feeding **Methods:** A descriptive design was used for the study as it suits its nature. The study was conducted in King Saud Bin Abdulaziz University of Health Science, College of Nursing, Jeddah. A total of 80 nursing students were recruited for the study. A self administrated questionnaire that contained two parts was used for collecting the study data, 1<sup>st</sup> part included demographic background and the 2<sup>nd</sup> part included the Iowa Infant Feeding Attitude Scale (IIFAS) to assess the student's attitude toward breast feeding.

**Results** Results of the current study indicated that the age of the students ranged from 19 to 28 years old with a mean of 21.73 and SD of 2.44, (46.3%) had experienced breast feeding in their clinical courses while (52.5%) had no previous clinical experience with breast feeding. Ninety six point three (96.3 %) of the students have the intentions to breast feed in their future, only (3.8%) have no intention to breast feed in the future. The Iowa Infant Feeding Attitude Scale (IIFAS) score ranged from 43 to 80 with an overall mean of 64.6+ 8.39

**Discussion and Conclusion:** The study results indicated a positive attitude of Saudi nursing students toward breast feeding , However, young students who don't have any previous experience with breast feeding either with family member or in work experience as clinical practice differ significantly in their perception and attitude toward breast feeding than those who had previous experience with breast feeding. Most of the Saudi nursing students have the attention to breast feed in the future , this is considered a positive predictor of the student's attitude toward breast feeding. Based on the study findings, Breast feeding education should be included in all curricula starting from secondary education to rise the awareness of adolescent females about the importance of breast feeding. Mass media should have an important role in raising the community awareness about importance of breast feeding, establishment of breast feeding support groups in the hospitals. Breastfeeding should be integrated into the curricula of both medical and nursing school.

### H-04

#### **Menstruation: Practices and Beliefs among Saudi Nursing students**

*\*Kholoud Al-Amri , Sara alsubaei , Sanaa Al-Shareef , Tahaani Sameer, Rehab Al-Motairi and Rowaina Balto*

**Supervised By**

**Dr. Abeer Eswi**

**Introduction:** The onset of menstruation is one of the most important changes that occur

to the female adolescence, in each culture, there are certain practices and beliefs related to menstruation that make adolescent females vulnerable to risky behaviors. Aim of the current study was to assess menstruation practices and beliefs among Saudi nursing students.

**Methods:** A descriptive correlational design was used for the study. The study was conducted in King Saud Bin Abdulaziz University of Health Science, College of Nursing, Jeddah. A total of 102 nursing students were recruited for the study. A self-administered questionnaire that was developed by the investigators was used for data collection.

**Results:** Results of the study indicated that the students were in age group of 19 to 30 years with a mean of 24.5, their age of menarche ranged from 9 to 17 years with a mean of 13.24 and SD of  $\pm 1.56$ . Ninety nine percent used sanitary pads, only (1%) used cotton. Frequency of changing the sanitary pads ranged from 2 to 4 times a day with a mean of 3.5 and SD of  $\pm .656$ . All participants responded that they do not attend religious duties as prayers and keeping fasting during menstruation; this is basic in Islamic religion. As for practicing sports (57.8%) responded as always practicing sports during menstruation, while (42.2%) responded as never practicing sports during menstruation. Sixty nine percent (69.6%) reported that they never cut their hair during menstruation. Almost all the participants (98%) always take shower during menstruation. Two thirds of the participants (77.4%) reported that they eat dark green vegetables during menstruation, (84.4%) of participants reported that they drink citrus fluids as lemon and orange juice during menstruation, the majority of participants (85.6%) reported that they perform all house hold duties during menstruation, (59.8%) reported that they prefer to stay alone during menstruation. Result of the study also revealed that all participants (100%) viewed menstruation as a physiological process, none of the participants considered it as curse of God, sin or disease. Eighty two point four percent believed that the menstruation comes from the uterus, (16.7%) believed that it comes from the vagina, only (1%) believed that it comes from the bladder. All participants (100%) believed that the sanitary pads are the best absorbents.

**Discussion and Conclusion:** based on the study findings the following were recommended:

Health education should be provided to adolescent females and their mothers. Health education should be given at school, college and community, menstruation self care and right practices should be included in school and college curriculum. Finally, mass media should have an active role in raising the awareness of adolescent females about the menstruation and the appropriate practices and hygiene to avoid reproductive health problems.

### H-05

## NURSING STUDENTS' EXPERIENCES AND VIEWS ON TRUTHFUL DISCLOSURE OF INFORMATION TO CANCER PATIENTS AND THEIR FAMILIES

*Iman AL. Otaibi, Mashaal AL. Shomrani, Wed Asel, Hend AL. Zahrani, Reem AL. Harthi, Tasneem Ahmad Husain. Supervisors:Dr Louise de Villiers, Dr Amani Babgi*

**Abstract:** Qualitative research was conducted, involving unstructured interviews with 16 nursing students to explore their experiences and views regarding truthful disclosure of information to cancer patients and their families. The participants viewed disclosure as a difficult experience because of the negative emotions which they had experienced. Patients have the right to know the truth but many factors should be considered before deciding to disclose information. This is because disclosure can benefit patients or cause distress. These factors include the seriousness of the condition and prognosis, as well as the patients' age and psychological and intellectual status. While some participants indicated that the patients should receive the information directly, others considered it best to inform the family. The family was considered to be the best source of information and support.

The information disclosed should include the diagnosis, condition, treatment and patient prognosis and the principle of honesty should be maintained. The patients were considered to have spiritual, cultural and physical needs, as well as the need for information necessary to manage their lives. The participants viewed their role as a source of support and answers rather than the messenger. They will support the patients spiritually and emotionally. It is recommended that students should be trained in telling bad news to patients, supporting the patients afterwards and dealing with their own feelings.

### Key words

Cancer; disclosure

## I. Al Hassa CON

### I – 01

#### Health related Quality of Life and Perceived Stress amongst Nursing Students in Al Ahsa KSA

*Rahmah Salem Al Saad*

*Supervised by: Dr. Hanan Gabry*

**Introduction:** Stress amongst university students has been a subject of research for many years. Almost every profession is affected by stress. There are many sources of stress among health professionals, especially nurses. High stress levels in students can lead to poor academic performance, depression, turnover from the program and serious health problems. Stress also might have an impact on their quality of life. Students as well as nursing educators should be aware of the impact of stress overall quality of life of nursing students.

**Objective:** we aim to investigate the relationship between Perceived stress level and health related quality of life among undergraduate nursing students (stream I, II, and stream II new applicants) and its impact on their quality of life.

**Methods:** A cross-sectional study was carried out on a sample of a total of 190 B.Sc nursing program including 70 students from stream I (four years B.Sc program for high school graduates) and 46 students from stream II (two and a half year program for non-nursing B.Sc graduates) filled in the questionnaire. Two self-administered tools were used: Quality of Life (WHOQOL-BREF) and the Perceived Stress (PSS) questionnaire.

**Results:** The study revealed that the age of stream I students were between 18-20, while the age of stream II students and the new applicants was between 20 to 30. The majority of the students in all groups had moderate economic status and reside in Al Ahsa and vicinity. More than half of stream II students were married with children and low GPA than stream I students and the new applicants.

Stream II students showed the highest stress level, the lowest score in their total quality of life compared with stream I students and the new applicants to Stream II program. The increased stress among stream II students caused a high rate of turnover from the program and low GPA level.

**Discussion and Conclusion:** The study highlights the importance of paying greater attention to the undergraduate students' high level of stress and its effect on their quality of life. The results from this study point to the need for adopting a new system at CONA, which aims to reduce students stress. The aim can be achieved through review of the students' courses and exams schedules, giving them more leisure activities, and better interaction with the faculty and proper guidance. Moreover, advisory services and counselling could do a lot to reduce students stress level and improve their quality of life.

## I-02

### Self Assessment of Leadership Behaviors among Saudi Baccalaureate Nursing Students and Nurses

*Aminah Hassan Abdullah Al Salman*

*Supervised by: Dr. Amany Abdrbo*

**Introduction:** With the increasing concern for patient's safety and quality of patient's care, and taking into consideration the ever changing environment of health care and the challenges facing the nursing profession such as the problem of nursing shortage and nurses aging, quality graduates are needed to fulfill the role of clinical leadership in today's nurses. The aim of this study is twofold: first, to assess the nursing students' leadership behaviors throughout their education, second, to compare self assessment of leadership behaviors amongst students groups on the other hand, and nurses working in hospitals.

**Method:** Descriptive cross sectional design is utilized to collect data from students at the College of Nursing in Al-Ahsa, King Saud bin Abdulaziz University for Health sciences. Convenient sample approached to fill the Self Assessment Leadership Instrument (SALI) comprises different groups of students with varied clinical experience and staff nurses.

**Results:** Participants were total of 134, with 107 students and 27 staff nurses. The students' average age was 23.13 ( $\pm 3.27$ ), their average GPA was 3.75  $\pm$  .61 out of 5. Most of them reported that they are single (N=67, 63.2%), do not have children (N= 73, 71.6%), their level of experience in nursing is 3.87  $\pm$  1.55 and their leadership behaviors sum score is 112.53 ( $\pm$  21.36). The nurses' average age was 27.56 ( $\pm$  2.98), they are married (N=19, 76.0%), have children (N= 14, 53.8%), their level of experience in nursing is 4.6 ( $\pm$  1.19) and their leadership behaviors sum score is 131.44 ( $\pm$  13.77). ANOVA test indicated that there were significant differences among the study groups self assessment leadership behaviors.  $F(3, 130) = 17.44$ ,  $p < .001$ . There were significantly sum scores of the self assessment leadership behaviors amongst students who have no clinical experience and other groups (students with experience in clinical training, graduates with nursing management course experience, and nurses;  $p < .001$ ,  $=.005$ ,  $<.001$  respectively).

**Discussion and Conclusion:** Assessment of leadership behaviors is a need in nursing education. Factors associated with leadership development amongst nursing students need more elaboration and exploration. This descriptive study may serve as a basis for further studies where other factors are included such as nursing students' personality traits. This as such a factor might affect the students' readiness to be nurse leaders. It is also recommended that leadership education should be consistently provided.



**I - 03****A pilot study into the learning modality preferences of entry and exit level students at the College of Nursing Al Ahsa***Salma K M Al Maghrabi**Supervised by: Ms. Caashifa Adams***Abstract**

The aim of this pilot study was to investigate the preferences of entry and exit level students to unimodal and multimodal sensory learning modalities at the College of Nursing Al Ahsa. The entry level students had a mean age of 18.21 and the exit level students 26.25. The Arabic version of the VARK 7.1 instrument was administered to 48 students, while answering the questionnaire was voluntary and anonymous. Using the results from the VARK assessment tool, students were categorised according to unimodal, bimodal, trimodal or quadmodal preferences. It was found that the majority of the students preferred one sensory modality (82%) while entry level students displayed a greater interest in two preferences (13.9%) of sensory modality compared to the exit level students. Both entry and exit level students had the least preference to three (1%) and four (2%) sensory modes.

**I-04****Students' perception of psychiatric mental health clinical practice: a qualitative study***Amnah Nasser Abdullah Al Hasan**Supervised by: Dr. Susanna Hattingh***Abstract**

Clinical practice is the core of nursing education during which the student is socialized into the nursing profession. During this period, there is transfer of knowledge and skill from qualified nurses and other members of the multidisciplinary team to student nurses. The purpose of this study was to describe and explore student nurse's experiences of clinical accompaniment in a psychiatric hospital in the Eastern province in the Kingdom of Saudi Arabia by means of a qualitative approach that included the exploratory, descriptive and contextual study designs. Ten unstructured in-depth interviews were conducted with students from a nursing college of the King Saud bin Abdulaziz University for Health Sciences who completed the required 16 weeks (16 days) of clinical placement. Qualitative methods included categorizing and coding. The major findings of the research revealed that participants regarded relationships and communication in psychiatric hospital as important for clinical accompaniment. Although student nurses were positive in their experiences, none indicated that they will be willing to be placed or work in the psychiatric hospital after their training. Which is alarming from the study is that some psychiatric hospital staff members did not perceive clinical accompaniment and teaching to be their task and students were often regarded with animosity. The students also emphasised that some of the factors which will add to a learning environment include the clinical environment,

clinical teaching and learning, student motivation, clinical accompaniment and learning opportunities for student nurses. The exploration and description of experiences of the psychiatric student nurses will help nurse educators plan clinical learning opportunities in such a way that they are less stressful, thus ensuring that psychiatric nursing students are equipped to utilise themselves as therapeutic instruments.

This study was undertaken by two students who was not part of the team of students interviewed. The students conducted the interviews under the supervision and with the support of the faculty members involved. The students collected literature for this study and they were taught about qualitative research.

### **I-05**

## **A historical narrative of two unique features in the Al Ahsa region: an extracurricular activity of nursing students**

**Shareefah A A Altheyab**

**Supervised by: Dr. Susanna Hattingh**

*A nation without history has no roots and no culture – and no future.*

### **Abstract**

Research can take many forms although in nursing often the focus is on quantitative research where data is collected from patients, diseases, hospital or community based medical/nursing focused issues. Nursing is however, more than just the study of diseases. Nursing is a diverse profession in which extracurricular activities focus on aspects of knowledge outside the spectrum of diseases and hospitals and which forms the personality and character of an individual. Information outside the everyday lives of students in all professions leads to a richness of knowledge and interest which is important in maintaining the optimal mental health of a student. To illustrate the diversity of nursing, a club was formed in which 12 students at the College of Nursing in Al Ahsa were given the opportunity to show other skills and talents often unrecognized. Amongst others, skills such as cooking, poetry, art and photography was established.

It is not a secret that extracurricular activities are of high importance for students. The period which a student spends at a college is one of the brightest moments in his/her life. It is so not only because education at a college is another step to the future independent life. The college authority knows that all work and no play make Jack a dull boy.

Of course, academic achievements should be prior to the extracurricular activities. But still, extra classes are necessary for a student's development not only in the sphere of education but also in other fields which are important for the mind and body of a student.

The study consisted of two phases, the sampling method was judgmental and the method was unstructured individual interviews and document analysis. Surprisingly, very view reliable sources could be found in relation to this study.

## I-06

**Organizational Climate of Nursing College Employee: A Survey-Based Investigation***Sughra Salman Al Herz**Supervised by: Dr. Elham Al Ateeq*

**Introduction:** The ability of any university to achieve its desired goals requires attracting and retaining competent staff. This is especially important in nursing colleges with the global nursing shortage and the nursing faculty shortage. An organizational climate study enables a successful organization to operate more efficiently through the use of employees' information regarding the services and the barriers to optimum performance. This information will provide better understanding of the areas of improvement of those services and will serve as a basis for quality improvement. This study is intended to assess the organizational climate of a higher education academic setting a nursing college in Saudi Arabia and to determine how the perception of organizational climate correlates with the employees' level of education, years of experience and nationality. This will provide useful insight into the current organizational climate of the College and can be used to recommend processes to achieve the optimal organizational climate in terms of maximum productivity and job satisfaction.

**Methods:** A descriptive cross-sectional study design was used. The target population of this study consisted of all the employees (teaching and non teaching staff, N 58) at the Nursing College in the Eastern Region of Saudi Arabia using a convenience sample. Data was collected in February 2012. A survey method for data collection was followed. The final released sample included a total of 45 usable questionnaires, representing a 77% response rate. The questionnaire was developed by the National Institute of Standards and Technology (NIST) Baldrige Performance Excellence Program. The instrument is organized by the seven Criteria Categories of the Baldrige Criteria for Performance Excellence. All the employees (N58 teaching and non teaching staff) at the College of Nursing in the Eastern Region of Saudi Arabia were asked to fill the 40 items questionnaire on 5 levels Likert scale. All scale items were ranked from 1 (Strongly Disagree) to 5(Strongly Agree). Also, the questionnaire contained questions to determine the respondent's age, level of education, nationality and years of work experience. The Cronbach alpha coefficient indicated acceptable internal consistency reliability. The Cronbach's Alpha value of .97.

**Results:** A response rate of 77 % was obtained (N= 45). The majority of the respondents agreed or strongly agreed with statements rating their perceptions of the nursing college organizational climate. Respondents rated the organizational climate in the nursing college in a favorable range overall, neither highly favorable nor unfavorable. There was some variation amongst scales and respondents in relation to level of education and nationality. Those employees with Master and PhD degrees rated the organizational climate slightly more favorable than those employees with Bachelor level of education, especially on the subscales of leadership, strategic management, customer Market focus and Measurement

analysis. Saudi Employees' perception of the organizational climate of the nursing college was rated lower than the other nationalities. Respondents with more working experience in the organization rated the organizational climate slightly higher than those belonging to lower levels of experience.

### I-07

## Nursing Students' Satisfaction with their Clinical Placement

Sukaina Al Momaten

*Supervised by: Dr. Amel Abouelfettoh*

**Introduction:** The quality of nursing education and ability of nurses to adapt to clinical roles upon graduation can be influenced by the clinical experiences they encounter in their undergraduate program. Exposure to positive clinical learning experience has an influence on nursing students' knowledge, skills, attitudes, and interest in continuing in the nursing profession. It is very useful to assess the clinical learning experiences while students are on placement. It is widely acknowledged that clinical placement evaluations are useful strategies. One mean to evaluate the effectiveness of teaching-learning experience is to look at the clinical experience through the students' eyes. Therefore, the aim of the current study is to provide useful insight into the undergraduate student clinical placement through evaluation of the nursing students' satisfaction with their clinical placement experiences.

**Methods:** A descriptive study using quantitative and qualitative method was used. A survey method for data collection was followed. All students at the College of Nursing in the Eastern Region of Saudi Arabia, who were enrolled in clinical courses during 2010 - 2011 and 2011-2012- academic years, were asked to fill in the clinical placement evaluation survey and rate their response on a 12 items questionnaire using 5 levels Likert scale. Students also responded to three open ended questions asking them about the advantages and the disadvantages of each clinical placement and their suggestions for improvement.

**Results:** A response rate of 80 % was obtained (N= 205). The majority of the respondents agreed or strongly agreed with statements rating their satisfaction with the clinical placement. Students were satisfied overall with the clinical placement (75.6%). However, qualitative data showed that students were dissatisfied with short clinical exposures, staff nurses role and evaluation process from the instructors.

**Discussion and Conclusion:** Nursing students were found to be satisfied with their clinical placement but they highlighted negative areas that could be taken into consideration by the faculty members, clinical instructor, clinical staff as well as students to enhance the learning that takes place in the clinical setting.

I-08

## Role of *Nigella sativa* (Black seed) in ameliorating the Toxic effect of Paracetamol on the Kidney

Amani Alawi A AbuAlrah

Supervised by: Dr. Amal Rateb

**Introduction:** Acetaminophen (APAP), also known as paracetamol is a widely used analgesic and antipyretic medication. Current guidelines recommend acetaminophen as the first-line analgesic of choice for the management of chronic pain. Acetaminophen-induced liver damage has been studied extensively, but the extrahepatic manifestations of acetaminophen toxicity are currently not described well in the literature. The pathogenesis of paracetamol toxicity has been shown to involve the generation of oxygen free radicals. The seeds and oil of *Nigella sativa* are reported to possess strong antioxidant properties and was effective against disease and chemically-induced hepatotoxicity and nephrotoxicity. In the light of these considerations, this study was designed to assess the toxic effects of APAP on the renal cortex and to test whether concomitantly oral treatment of rats with *Nigella sativa* oil (NSO) would ameliorate nephrotoxicity of paracetamol or not.

**Methods:** An experimental model was set up using 30 Wistar albino rats weighing 200-250gm. Animals were divided into three groups, each group included ten rats. **Group A:** - They were the control group of the experimental ones that treated likewise with pure vehicle. **Group B:**-This group of animals was treated with 750 mg /Kg /day paracetamol orally by means of gastric tube for seven consecutive days. **Group C:**-This group was subjected to treatment with *Nigella sativa* oil in a dose of 2ml /kg orally with gastric tube, the dose is given concomitantly with paracetamol administration in the same dose and by the same route as group A. After 24 hours from the last dose given to the animals, all experimental animals were scarified and the kidneys from all groups were processed for light microscopic morphological analyses.

**Results:** Examination of the paracetamol treated group reflected obvious derangement of overall kidney architecture. Renal changes were in the form of atrophy of the glomeruli, loss of integrity of the brush border of proximal convoluted tubules, vascular congestion of glomerular and peritubular capillaries. Furthermore, Alkaline phosphatase reaction was markedly reduced in the proximal convoluted tubules. The group with concomitant administration of NSO with PAPA revealed marked recovery of these histological changes.

**Discussion and Conclusion:** Our results confirmed the toxic effect of paracetamol on the kidney and declared the protective antioxidant effect of *Nigella Sativa*.

## *J- College of Public Health and Health Informatics, Masters program*

### *J-01*

#### **Implementation of Computerized Physician Order Entry (CPOE) with Clinical Decision Support (CDS) Features in Riyadh hospitals to improve quality of information**

*Mariam S. ALMUTAIRI<sup>a,b</sup>, Rana M. ALSEGHAYYIR<sup>c</sup>, Anwar A. AL-ALSHIKH<sup>d</sup>, Hayat M. ARAFAH<sup>e</sup>, Mowafa S. HOUSEH<sup>f</sup>*

<sup>a,b,c,d,e,f</sup> *College of Public Health and Health Informatics, King Saud Bin Abdul-Aziz University for Health Sciences (KSAU-HS), Riyadh, Saudi Arabia*

#### **Abstract**

**Introduction:** Hospital Medication errors are a common and fatal problem hospitals where and that cause approximately 770,000 people in the United States to be negatively affected. To reduce medication errors, studies have suggested that the use of Computerized Provider Order Entry (CPOE) have an impact in reducing the number of medication errors. In this paper we have conducted a preliminary study of the applied CDSS features in CPOE adopted systems.

**Method:** This research used a cross-sectional self-administered questionnaire that was adopted from the Leapfrog CPOE standard. The study took place in three hospitals in Riyadh, the capital city of Saudi Arabia.

**Results:** show that the adoption of CPOE with Clinical Decision Support System is not yet mature. CPOE systems allow the physician to enter their order of medication electronically but many of the applied CPOE systems do not contain alerts that should advise the physician of dangerous interaction caused by wrong medications.

**Conclusion:** hospitals are recommended to enhance the role of Clinical Decision Support CDSS with the Computerized Physician Order Entry CPOE in order to reduce such medication errors and improve the safety of patients and increase the quality of information.

## ART SCENES AND DOCUMENTARIES

*COM Jeddah*

Faisal Al Ghamdi

photography

1. Jeddah sight seen(mosque)
2. Jeddah sight seen(fountain)
3. weird plant
4. alleeth beach
5. finding an exit
6. a road ...
7. that is what you get when you face nature
8. amazing sunset
9. My Hometown
10. Unity
11. Black & White
12. Albalad-Jeddah
13. Full moon
14. rush hour









### *COM Riyadh female*

#### **Photography**

1-Sarah Al Jahdaly

#### **Midnight in Paris, I can believe I can fly**

2- Yara Al Goraini

#### **let it pour, Hopefulness**

### *CON- Riyadh*

#### **Art Scences**

1- Dhuha al Aseef

2- Munirah Al Sultan

3- Shahad Bin Saeed

4- Nujud Al Tyjery

5- Modhy Al Enazy

### *CON – Jeddah*

#### **Fine art photography**

1- Dua'a Mohamed Alshumrani

2- Waad Nabil Abo Dao'od

3- Mdhawi Saad Almoa'afi

4- Mshael Ibrahim Alseed

5- Lujain Zuhair Saleh Momina

6- Abrar Jamil Alharbi

#### **Light Photography**

1- A'aisha Mohamed Alshumrani

2- Mshael Mansor Alshumrani

#### **Arabic Calligraphy**

1- Manal Ali Alghamdi

#### **Documentary Film**

1- Aljawhara Mohamed Abo Aali

**CON – Al Ahsa**

**Photography**

1- Amani AbuAlrahi

*Smile Despite the Difficulties*



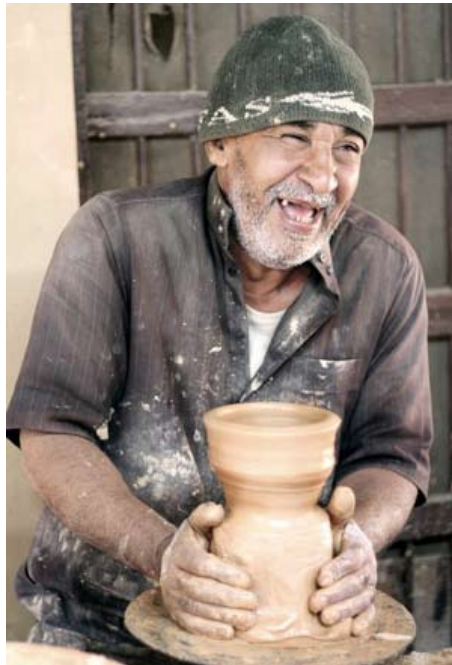
2- Amani AbuAlrahi

*Pay the worker before his sweat dries*



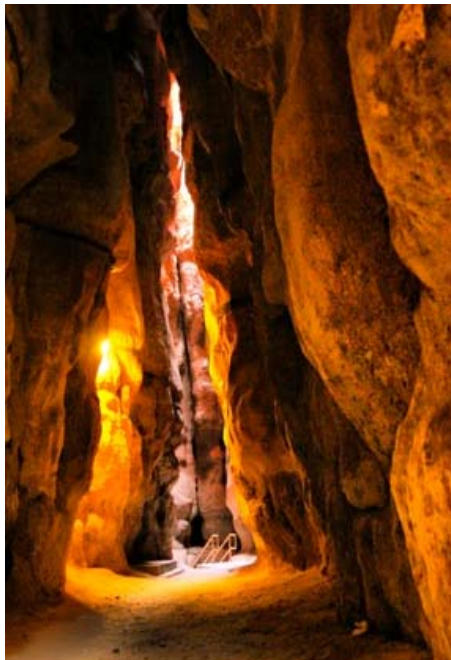
3- Alhanouf Al Suwaigh

*And certainly did We create man from an extract of clay*



4- Alhanouf Al Suwaigh

*Magic of Light*



5- Maryam Al Mulhim  
*Freedom*



6- Dalal Al Mulhim  
*Survival*



7- Aeshah Al Mulhim  
*A Warrior's Rest*



**Painting**

1- Fatimah Al Subeay  
*Bedouin Love*



2- Fatimah Al Subeay  
*the Woman and the Mirror*



3- Maymunah Al Rwimy  
*Flowers*



**The Documentary Film**

No.	The Documentary Title	The Participant Name	Participant
1	The Clay	Shareefah A Altheyab	Presenter
2		Alhanouf Alsuwaigh	Participant
3		Salma Ibraheem Saleh Al Farhan	Participant
4		Thibaa Wasmi Alkulib	Participant
5		Sarah Ali E Al Drees	Participant
6	The Legend	Thibaa Wasmi Alkulib	Presenter
7		Shareefah A Altheyab	Participant
8		Alhanouf Alsuwaigh	Participant
9		Salma Ibraheem Saleh Al Farhan	Participant
10		Sarah Ali E Al Drees	Participant

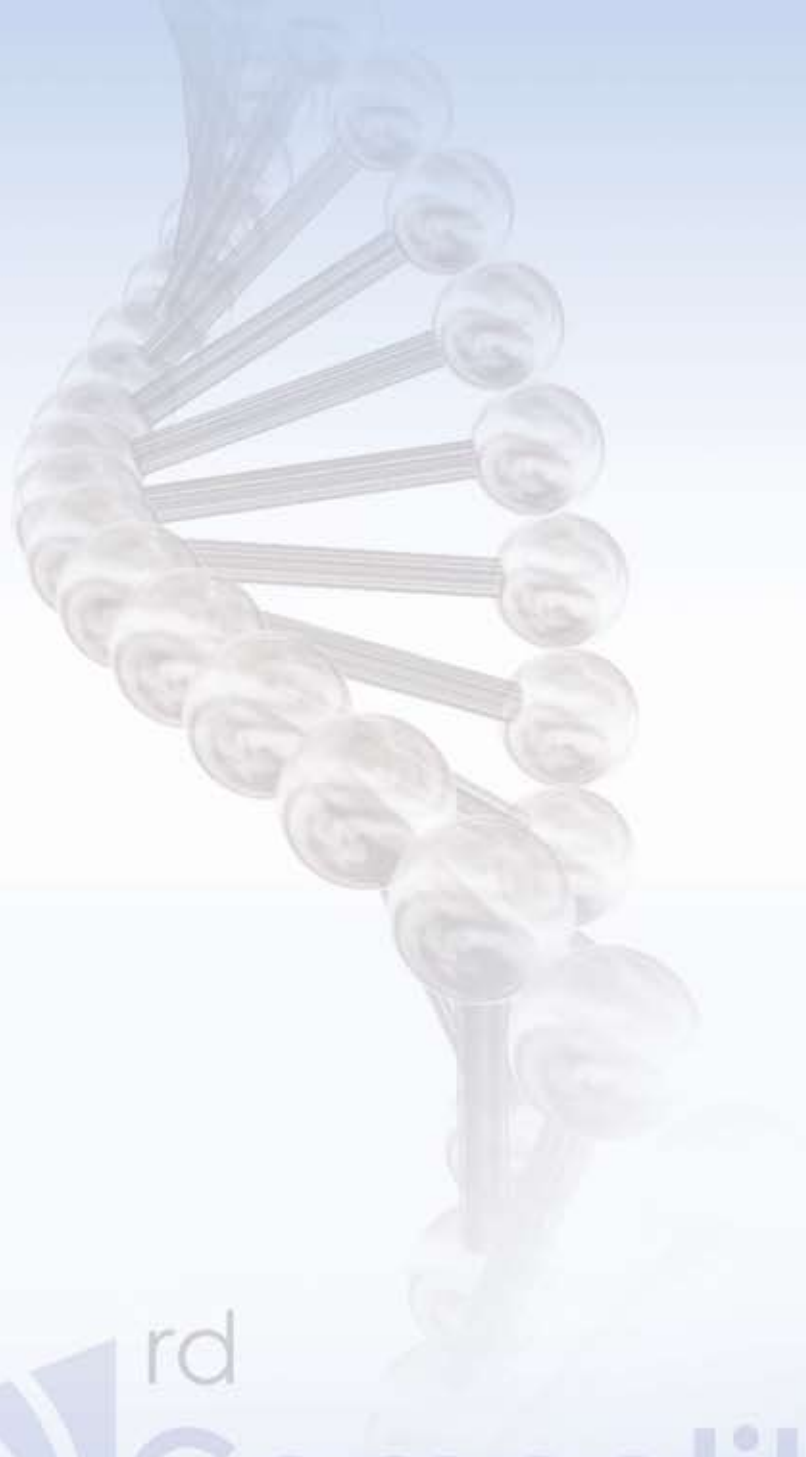




# Notes

A series of horizontal dotted lines for taking notes.





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# Competitive

Preparatory Scientific Meeting  
for Students of KSAU-HS