CONFERENCE PROCEEDINGS

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13–14 October, 2018

CONFERENCE VENUE

The Regency Scholar's Inn @ UTM, Universiti Teknologi Malaysia, Jalan Semarak, 54100, Kuala Lumpur, Malaysia

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Preface:

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KEYNOTE SPEAKER

Nizar Abdul Majeed Kutty
Department of Physiotherapy at University Tunku Abdul Rahman, Malaysia

Mr. Nizar is Head of Department and Senior Lecturer in Department of Physiotherapy at Universiti Tunku Abdul Rahman, Malaysia. His commitment to teaching excellence earned him accolades during his tenure at UTAR. His research interest spans a variety of topics in multi-sensory reweighting, core stabilization training and diabetic neuropathy. Mr. Nizar presented his research findings at international conferences and published articles in ISI and Scopus indexed journals. A few of his academic articles have been translated into other languages. He serves as editor and reviewer of high-end scientific journals from the United States. He is invited as Keynote speaker for international conferences. He writes articles on health care for popular periodicals.

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KEYNOTE SPEAKER

Dr. Palanisamy Sivanandy

Department of Pharmacy Practice, School of Pharmacy

International Medical University, Kuala Lumpur, Malaysia Dr. Palanisamy Sivanandy is an eminent academician and researcher has more than 10 years of teaching and research experiences. He has more than 20 years of experiences in the pharmacy field. He has started his career as a Dispensing pharmacist in the year 1997 as a Diploma Pharmacist; in 2005 he has completed his Pharmacy Undergraduation (B.Pharm) from the Madurai Medical College, Tamilnadu; in 2007 he obtained his Post Graduation (M.Pharm) in Pharmacy Practice from Sri Ramakrishna Institute of Paramedical Sciences, Coimbatore, Tamilnadu. He has completed his Ph.D., in the year 2013 from the prestigious Tamil Nadu Dr.MGR Medical University, Chennai and Good Clinical Practice Licensure Exam from Ministry of Health (MoH), Malaysia in 2014. He has published more than 59 research papers in various national and international indexed peer-reviewed journals and has been serving as an editorial board member of repute for more than 10 international journals. He has received many grants from Indian Council of Medical Research, New Delhi, India; Department of Science & Technology, New Delhi, India; Centre for International Co-operation in Science, Chennai, India; and International Medical University, Kuala Lumpur, Malaysia. He has presented many research papers in conferences in various countries like Turkey (Istanbul), USA (New York and Texas), South Korea (Seoul), Singapore, Thailand (Bangkok), and Malaysia. His main area of interest is Pharmacovigilance, Drug Safety Monitoring, Prescription Auditing, Clinical Research and Development, Clinical Trials and Patient Safety.

Usman Alhaji mohammed **ERCICRLSH1803051**	**Ecology Of Snails In Relation To Epidemiology And Transmission Of Schistosomiasis In Bauchi South Senatorial Zone, Nigeria** **Usman Alhaji mohammed** **Aminu saleh College of Education Azare, Bauchi State, Nigeria** **Abstract** **A twelve-month epidemio-ecological study on the prevalence, water contact activities, and water quality and vector aspects of schistosomiasis was conducted in Bauchi South senatorial zone, Nigeria in 2016. Eight hundred 800 samples each of urines and faeces were collected and examined microscopically for schistosomes eggs. Twenty three 23(2.9%) out of the entire volunteers urine sample examined had eggs of S. haematobium and three 3(0.4%) had eggs of S. mansoni in their faecal samples. Some selected water bodies within the area were surveyed for the intermediate hosts of the parasite. Standard key were employed to identify the snail vectors while cercariae emergence was determined by exposing snails to sunshine for 30 minutes. They were also collected for water quality. Six hundred and fifty (650) snails were collected and examined, only 24(3.7%) Bulinus globosus shed cercariae while none of the Biomphalaria pfeifferi shed cercariae during the study. Eight hundred (800) structured questionnaires were distributed in order to get the information of the participants. The infection rates by the parasite in different sexes was not statistically significant ($p>0.05$) while in different age groups, individuals using different water sources, types of toilet facilities and occupation were all statistically significant ($P<0.05$). The water quality seemed to have effect on the infectivity of the snails as only 24(3.7%) snails were infected in the water with low pH value and high dissolved oxygen content. Health education is recommended to maintain the non-endemic nature of the disease in the study area.** **Keyword: Epidemiology, Schistosomiasis, Bulinus, Biomphalaria, Cercariae**
Karimullah Karimullah **ERCICRLSH1803052**	**The agonistic Behaviours of Free-Ranging Pig-tailed Macaques Troop in Roadside and Forest Areas in Perak, Malaysia** **Karimullah Karimullah** **Faculty of Biosciences, University of Leipzig, Germany** **Shahrul Anuar** **School of Biological Sciences Universiti Sains Malaysia** **ABSTRACT** **Non-human primate (NHP) especially (genus Macaca) are extensively dispersed, expressively adaptable and highly opportunistic omnivores. Due to proximity to human societies and interface around potential macaque, food sources effects in a high rate of human-primate interaction for macaques. A troop of Macaca nemestrina observed in northern region of peninsular Malaysia that live in the area of Pondok Tanjung (N 04° 57, E 100° 43), in both roadside and in forest areas. Inter-group contacts lasted longer and were further prospective to comprise aggression in the roadside than in the forest. In certain, adult males and adult females when in front or closed to public showed a significantly higher level of the most thrilling forms of agonism, such as attacking, fighting, and chasing than when found in the forest. The collected data are described in relation to feeding**

	patterns and ecological alterations and show the abundant of flexibility of social activities in these primates. Inherent selection for a high level of violent behaviour in a roadside population of macaques is not considered likely. **Keywords: intergroup agonistic, Ecological alterations, Social behaviour, Macaca nemestrina**
Lawal Nura **ERCICRLSH1803053**	**Effect of antioxidant-rich nutraceutical on serum glucose, lipid profile and oxidative stress markers of salt-induced metabolic syndrome in rats** **Lawal Nura** **Biochemistry & Molecular Biology, Federal University Dutsinma Katsina state, Nigeria, Katsina, Nigeria** **LS.Bilbis** **Department of Biochemistry, Usmanu Danfodiyo University, Sokoto Nigeria** **RA.Umar** **Department of Biochemistry, Usmanu Danfodiyo University, Sokoto Nigeria** **AA.Sabir** **Department of Medicine, Usmanu Danfodiyo University Teaching Hospital, Sokoto Nigeria** **ABSTRACT** **Metabolic syndrome (MS) a high risk condition involving obesity, dyslipidemia, hypertension and diabetes mellitus is prevalent in Nigeria. The study aim to formulate an antioxidant rich nutraceutical from locally available foodstuff (onion, garlic, ginger, tomato, lemon, palm oil, water melon seeds) and investigate their effects on blood pressure, body weight, serum glucose, lipid profile, insulin and oxidative stress markers in salt-induced rats. The rats were placed on 8% salt diet for 6 weeks and then supplementation and treatment with nutraceutical and nifedipine in the presence of salt diet for additional 4 weeks. Feeding rats with salt diet for 6 weeks increased blood pressure and body weight of the salt-loaded rats relative to control. Significant (P<0.001) increase in serum blood glucose and lipid profile, and decrease in high density lipoprotein-cholesterol (HDL-C) was observed in salt-loaded rats as compared with control. Both supplementation and treatment (nifedipine) lowered the blood pressure but only supplementation lowered the body weight. Supplementation with nutraceutical resulted in significant (P<0.001) decrease in the serum blood glucose, lipid profile, malonyldialdehyde (MDA), insulin levels, insulin resistance, and increased HDL-C and antioxidant indices. The percentage protection against atherogenesis was 76.5±2.13%. There is strong positive correlation between blood pressure, body weight and serum blood glucose, lipid profile, markers of oxidative stress and strong negative correlation with HDL-C and antioxidant status. The results suggest that the nutraceuticals are useful in reversing most of the component of metabolic syndrome and might be beneficial in the treatment of patients with metabolic syndrome.** **Keywords: Metabolic syndrome, obesity, dyslipidemia, hypertension and**

	nutraceutical
Binta Ibrahim Muhammad **ERCICRLSH1803054**	**Impact of digital technology in textiles industrial** **Binta Ibrahim Muhammad** **Fashion Design and Clothing Technology, Hussaini Adamu Federal Polytechnic Kazaure, Jigawa, Nigeria** **Abstract** **It has been observed that computer has contributed immensely in manufacturing of goods and services. Virtually every activity in the manufacturing or production of goods and services requires computation and information as such cannot be carried out perfectly by human. In spite of these, there has been indifferent attitude among some producers and organizations towards the role of digital technology in decision making and efficiency of productivity. This research into the impact of digital technology in textiles as well as any manufacturing industry is imperative and useful to give a clear picture on its relevance and how effective and efficient digital technology are in the textile industry. It also traced how digital technology is used in making colourful designs, which is more important to textile industries in making of attractive goods. Despite the limitations of digital technology, which the research work try to trace, it's role in ensuring effective administration in decision – making and accountability cannot be over emphasized. Therefore it is important for manufacturers to recognize the contribution of digital technology in textiles and manufacturing industries as a whole.** **KEY WORDS: Computer, Textile, Technology, Industrial**
 **Arip Ambulan Panjaitan** **ERCICRLSH1803056**	**Adolescent behavior in unwanted pregnancy prevention among students at faith-based** **Arip Ambulan Panjaitan** **Akademi Kebidanan, Panca Bhakti, Indonesia** **Windiyati** **Akademi Kebidanan Panca Bhakti, Pontianak, Indonesia** **Megalina Limoy** **Akademi Kebidanan Panca Bhakti, Pontianak, Indonesia** **Devi Elvira** **Akademi Kebidanan Panca Bhakti, Pontianak, Indonesia** **Abstract** **Introduction: Adolescent are at high risk of unwanted pragnency, including abortion, STIs, HIV/AIDS. Risky sexual behavior is one of the entrance transmissions of unwanted pregnancy. Such behavior can be influenced by various factors, beyond and within the individual factors. Teens need the support and motivation in deciding not to do risky sexual behavior. The purpose of this study was to investigate the determinants of adolescent behavior in the prevention of unwanted pregnancy.** **Methods: This research used cross-sectional design. The populations were students of MA in District Karangawen II Demak. The were 235 respondents chosen by cluster sampling technique for this study. All data were collected using questionnaires and then analysed using bivariate (chi square) and multivariate analysis (logistic regression).**

	Results: The results showed that the majority of respondents did not have good knowledge about the prevention of unwanted pregnancy. Related variable is the level of parental education (p=0.001), the support of parents/guardians (p=0.009), support teachers (p=0.005), peer support (p=0.039), residency (p=0.009), a pastime activity (p=0.000), knowledge of adolescents about reproductive health (p=0.016), perception ability of adolescents (p=0.006) and attitude of adolescents (p=0.049). Adolescent self-perception abilities are variables that most influence on the behavior of adolescents in the prevention of unwanted pregnancy. **Conclusions: Efforts to improve reproductive health programs should be early and adolescent have responsibilities as well as healthy behaviors.** **Keywords: Adolescents, Behavior, Unwanted Pregnancy**
Huda Abbass **ERCICRLSH1803057**	**Prevalence of overweight and obesity among public primary school students in arkaweet-khartoum-sudan** **Huda Abbass** **Department of community medicine, Faculty of medicine, University of Khartoum, Khartoum, Sudan** **Abstract** **Background: childhood obesity is one of the most serious health challenges of the 21st century. The problem is global and the prevalence is increasing at an alarming rate.** **Objectives: to determine the prevalence and associated risk factors of overweight and obesity among primary public school children(10-14)years old in arkaweet-khartoum-sudan** **Materials and methods: a descriptive cross sectional school based study was conducted among primary schools student's males and females in arkaweet, Khartoum, Sudan. Simple random sampling was used. The data was collected through a self administered questionnaire. Height and weight of the subjects were measured and body mass index (BMI) was calculated, using growth charts of center of disease and control (CDC)** **Results: a total of 161 children between ages of 10 and 14 were involved in the study. The prevalence of overweight and obesity was 34% and 4.97% respectively. Females had a higher prevalence of overweight 38.3%when compared to males 30%. Obesity also was highly prevalent in females(7.4%)than in males (2.4 %.) the majority of subjects studied healthy- weight (50.9%).** **The mean weight is 48.1,mean height is 141.2** **There was signifince association between educational level of father(p value=0.000), educational level of mother (p value=0.000),job of mother(p value=o,o46),physical activities(p value=0.034),watching TV(p value=0.04) and playing video games(p value=0.000) for long hours per day,number of daily meals (p value=0.002),type of food,fast food(p value=0.032) and soft drinks consumption (p value=0.000)and family size(p value =0.003)** **There was obvious psychological impact among overweight and obese students ,as they suffer a lot from their classmate bulling** **Conclusion: The results of the current study provide alarming evidence based data on the considerable prevalence of childhood overweight and obesity among primary public school students in arkaweet-khartoum-sudan**
Abdelrahman Elbagory **ERCICRLSH1803058**	**Assessment of some antibiotics residues in broiler meat and giblets in Egypt**

	Abdelrahman Elbagory **Food Hygiene and Control, Menoufia University, Menoufia, Egypt** **Yasein, N.A** **Dept. of Food Hygiene, Faculty of Veterinary Medicine, Cairo University** **Elbayoumi, Z.H** **Dept. of Food Hygiene, Faculty of Veterinary Medicine, Cairo University** **Yuosef , A.M** **Governmental General Veterinarian** **Abstract** **The goal of this study is to assess the level of some antibiotic residues as Doxycycline (DOC) and Oxytetracycline (OTC) in broiler meat and giblets and to evaluate the effect of various cooking methods on the level of such residues in examined broiler meat and giblets. A total of sixty random samples of fresh broilers meat, liver and kidney (20 each) were purchased from different markets at various localities in Menoufia governorate, Egypt. Each sample was extracted and analyzed using HPLC for determination the level of DOC and OTC residues. The obtained results indicated that the mean values of DOC residues were 8.39 ± 0.14, 1142.85 ± 21.09 and1305.59 ± 27.68 µg/kg , while the mean values of (OTC) residues were 37.52 ± 0.41, 435.31 ± 12.86 and 62. 123 ± 5.35µg/kg for broilers meat, liver and kidney, respectively. The effect of different cooking methods (boiling and frying) on the level of such antibiotic residues in muscle and liver was also studied. The mean reduction % of DOC residues in meat samples after boiling was 85% and 95.6% after frying, while in liver samples the mean reduction % were 87.6 % and 98.8 % after boiling and frying, respectively. The mean reduction % of OTC residues in meat samples after boiling and frying were 79.2 % and 96.2 %, respectively and for liver samples were 85.6 % and 97.5 % after boiling and frying, respectively.** **Key words: antibiotics; residues; broiler meat; giblets ;Egypt**
Ahmed Dawod Ismail Ahmed **ERCICRLSH1803060**	**Modelling of Some Dairy Performance Indices upon Milk Somatic Cell Count in Holstein Dairy Cows** **Ahmed Dawod Ismail Ahmed** **Department of Husbandry and Animal Wealth Development, Faculty of Veterinary Medicine,Sadat City University, Sadat City, Menofia, Egypt** **Abdel-Hamid T.M.** **Animal Wealth Development Department, Faculty of Veterinary Medicine, Zagazig University, Sharkia, Egypt** **Ramadan S.** **Animal Wealth Development Department, Faculty of Veterinary Medicine, Banha University, Tokh, Egypt** **Fathalla M.** **Animal husbandry and Animal Wealth Development Department, Faculty of Veterinary Medicine, Alexandria University, Alexandria, Egypt**

	Fathalla S., **Department of Husbandry and Animal Wealth Development, Faculty of Veterinary Medicine,Sadat City University, Sadat City, Menofia, Egypt** **El Byoumi K.** **Department of Husbandry and Animal Wealth Development, Faculty of Veterinary Medicine,Sadat City University, Sadat City, Menofia, Egypt** **Abstract** **This study was conducted to evaluate the standardized effects of some dairy performance parameters (lactation length, lactation season, parity, total and 305 milk yields) on somatic cell count (SCC) in Holstein dairy cows throughout modelling of these variables with the path analysis technique. For this purpose 617 cows enrolled into the experiment from 15± 7.14 DIM till complete their lactation length. Milk samples were taken from each cow every 3 months then the fresh milk samples were subjected to somatic cell counting via automatic cell counter. Other data of days dry, lactation length, parity number, total and actual 305 milk yields were taken from the dairy farm recording system (Dairycomp). After collection of all data, the data were entered to AMOS software program version 24 in order to build conceptual path model among days dry, lactation length, parity number as independent variables and total, actual 305 milk yields as intermediate transitional variables and milk SCC as dependent variable.** **The study was revealed that, the relationships between the above mentioned variables could be modelled via using the path analysis technique. Also, the study revealed that the SCC was directly affected by lactation length, total and 305 milk yields with standardized beta load of 0.446, -0.173, 0.367, respectively, while it indirectly affected with total milk yield by standardized beta load of 0.229. The study was concluded that the milk SCC could be controlled via applying adjustments for the dairy cow's lactation length as the SCC was strongly affected with lactation length.** **Keywords: Somatic cell count; Days dry; Dairy cows; Parity; Holstein Friesian**
Rehab Tahoon **ERCICRLSH1803061**	**Causal Modeling of Relationships among Big Five Factors of Personality, Multiple Intelligences and Their Impacts upon Mind Habits in Faculty of Education Students** **Rehab Tahoon** **Educational psychology, Sadat City University, Monoufia, Egypt** **The present study aimed to study the causal model which explains the direct and indirect effects of big five factors of personality and multiple intelligences on mind habits of Faculty of Education students, Sadat City University. A sample of (599) from second year students of both sexes was enrolled in the study during the period from 2016 to 2017. The study tools were the measures of big five factors of personality, multiple intelligences, and mind habits. The study reveals that, the causal relationships between big five factors of personality, multiple intelligences, and mind habits in the study sample could be modeled. Also, the study proofed that the big five factors of personality could affect the multiple intelligences, as the extraversion affected the social intelligence with standard beta load of (0.31), moreover the openness to experience effected the Bodily intelligence**

	with the standard effect of (0.30). The big five factors of personality affected the mind habits, as the effect of the conscience on the habit of control of managing impulsivity considered as a one the most important effects with standard beta load of (0.27), Followed by the habit of listening with understanding which record a standard beta load of (0.21). Multiple intelligences also affected mind habits, as the effect of the Bodily intelligence on the habit of taking responsibility is the most important effect, with the standard effect of (0.29). Moreover, the study revealed that the mind habits affected each other significantly, as the effect of habit of thinking clarity and precision on the habit of applying knowledge by standard value of (0.28). Also, multiple intelligences affected each others, as the Bodily intelligence affected the natural intelligence with standard beta load of (0.43). There were indirect effects of the big five factors of personality on multiple intelligences and on mind habits, also, the study reveals that the presence of indirect effects among multiple intelligences each other, as well as among mind habits each other, The study concluded that the causal model was able to explain the variable dimensions of the mind habits through the dimensions of multiple intelligences variable and dimensions of the big five factors of personality variable.
Dr. Akshay Shiwanand **ERCICRLSH1803062**	**An introduction to Sundhamata Conservation Reserve of Rajasthan, India** **Dr. Akshay Shiwanand** **Deptt. of Zoology, Jai Narain Vyas University, Jodhpur, Rajasthan, India** **Abstract** **The Sundha Mata Conservation Reserve comprising the three forests Block in Jalore Forest division and one forest block, (Rahua Vadvaj) in Sirohi forest division. It is situated in the south west part of Rajasthan, India. Sundha Mata Conservation Reserve was notified by the Rajasthan Government in the year 2010 vide Govt. of Rajasthan notification no. P- 3 (26) Forest-2008, Date: 20-07-2010 . The Conservation Reserve spread over an area of 117.49 km2 over Aravali Plateau in the Jalore and Sirohi districts of Rajasthan. As per the working plan of Jalore, the Sundha Mata conservation reserve has Twenty two compartments (16 in Jalore and 6 in Sirohi) comprising over all area of 117.49 km2 (101.15 km2in Jalore and 16.34km2 in Sirohi).** **Keywords—Reserve, Rajasthan, India, Jalore, Sirohi.**
Shakirah Md. Sharif **ERCICRLSH1803063**	**Process Evaluatoon Desigo aod Methods Used io the Jom Mama Study (NMRR-16-387-29002)** **Shakirah Md. Sharif** **Iosttute for Health Systems Research, Mioistry of Health, Malaysia** **Diane Chong Woei Quan** **Institute for Health Systems Research, Ministry of Health, Malaysia** **Ainul Nadziha Mohd Hanafiah** **Institute for Health Systems Research, Ministry of Health, Malaysia** **Nur Azmiah Zainuddin** **Institute for Health Systems Research, Ministry of Health, Malaysia** **Nurul Salwana Abu Bakar**

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Abstract

Introduction: Process evaluation is important to understand how complex interventions function in different settings and to provide insights to what made them successful or otherwise. This study aims to describe the process evaluation design and methods used in the Jom Mama study.

Methods: The identification of process evaluation elements was based on work processes in the intervention (Jom Mama Programme Theory Framework) that could affect the study outcome. The development of process evaluation tools followed the identification of elements. Process evaluation implementation was conducted in parallel with the implementation of the intervention.

Results: Four elements were identified (recruitment process, intervention implementation, community health promoters' support sessions and attrition). Mixed methods were employed for assessment of identified elements. Focus group discussions and in-depth interviews were conducted with the researchers, participants, community health promoters and mentors. Real-time observation of recruitment process and support sessions were done when possible, to gather findings from the field. To evaluate the implementation of the intervention, audio recordings were obtained and analysed. Intervention's routine monitoring data on recruitment progress, implementation of contact points according to the time plan, number of training sessions conducted and others complemented these methods.

Discussion/conclusion: The development of process evaluation design and methods focused on the collection of a breadth of information related to the implementation of the intervention. The collection of multi-perspective opinions from those involved in the study and the application of mixed methods could provide valuable insights for future health promotion programmes.

Keywords: process evaluation, mixed methods, complex intervention

Zaiton Kamarruddin
ERCICRLSH1803068

A Comparative Analysis On Performance Efficiency in Lean Healthcare Initiatives at Emergency Department and Medical Ward of 52 MOH Hospitals

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	Institute for Health Systems Research **Abstract** **Background: Between 2015 and 2017, a total of 52 MOH hospitals implemented lean healthcare improvement initiatives using agile approach to improve efficiency on waiting time at ED and patient discharge process in medical ward. Objectives: A comparative analysis was done for the 52 hospitals by batches to study on the performance and the achievement at post 6 months and 1 year of the lean implementation. Methods: The first batch of 16 MOH hospitals in 2015 was selected based on high bed occupancy rate and overcrowding green zone patients at emergency department. All state hospitals were selected in the first batch followed by 20 major specialist hospitals in 2016 and 16 major and minor specialist hospitals in 2017. The project team from each department was given training on the lean thinking principles, tools and methodology prior to the implementation. Performance on efficiency at ED was measured based on four metrics: arrival to consult (ATC); length of stay (LOS); bed waiting time (BWT) and call not attended (CNA) while the medical ward performance were bed occupancy rate (BOR), discharge time (DT) and bed turnaround time (BTT). Data was analysed using SPSS. The progress in performance at post 1 year for each hospital was categorised into either Improved(I); Maintain(+); Maintain(-) or R(Reduced). The Improved performance was defined as efficient process. Results: The achievement on Improved(I) category at post 1 year for the Emergency Department was greater in batch 2016 (40% hospitals) compared to hospitals in 2015 (25% Improved) and 2017 (25% Improved). The achievement for Medical Ward was greater in batch 2015 (25% Improved) and 2016 (25% Improved) compared to hospitals in 2017 (12.5% Improved). Conclusions: The improvement in efficiency resulted from the 52 MOH hospitals provide evidence on the effectiveness of implementing lean in optimize available resources on improving the current work practice.** **Keywords: Lean Healthcare, Emergency Department, Medical Ward, Performance Metrics, Process Efficiency**
Mohd Shaiful Jefri Mohd Nor Sham Kunusagaran **ERCICRLSH1803069**	**Factors Associated with Antenatal Visits at Ministry of Health Facilities in Malaysia** **Mohd Shaiful Jefri Mohd Nor Sham Kunusagaran** **Health Economics Research Division, Institute of Health System Research, Setia Alam, Selangor** **Abstract** **Background: Ministry of Health has recommended antenatal visit of 10 and 8 visits throughout pregnancy for primigravida and multigravida respectively. However, the pattern of utilisation is increasing over the years. Objectives: This study aimed to identify the pattern and factors associated with the number of antenatal visits. Methods: This is a cross-sectional study designed using secondary quantitative data collected in 2016 from the clinic copy of maternal health registry. Stratified random sampling method was employed to select 6 primary healthcare clinics in the state of Negeri Sembilan. This study involves 369 pregnant women who utilized maternal care services with minimum of 7 antenatal visit at the selected MoH facilities. Results:The mean antenatal visit was 15.7 (95 % CI: 15.2 – 16.2) visits per patient per antenatal care. There was no**

	significant difference in the mean of visit among different pregnancy related issue. The main provider was by a nurse with 11.7 (95 % CI: 15.2 – 16.2) visits per patient per care, followed by a medical officer with 7.5 (95 % CI: 7.2 – 7.9) visits per patient per care and by a family medicine specialist with 1.5 (95 % CI: 1.3 – 1.7) visits per patient per care. Mean antenatal outreach visit was 2.7 (95 % CI: 2.5 – 2.9) visits per patient per care. Regression analysis showed that the mean antenatal visit was associated with the type of facilities and pregnancy related issue. There was no significant difference in the mean of visit among different ethnicity, nationality, marital status, education status and employment status. Conclusions:Mean antenatal visit almost double compared to the national recommended antenatal schedule by the Ministry of Health Malaysia. This indicates the presence of inefficiency in delivering the service; excessive utilisation as well as non-standard care across different facilities in the state of Negeri Sembilan. **Keywords: Factors, antenatal visit, Malaysia**
Nur Amalina Zaimi **ERCICRLSH1803070**	**Estimating Cost-effectiveness of Pneumococcal Vaccine among Malaysian Hajj Pilgrims** **Nur Amalina Zaimi** **Institute for Health Systems Research (IHSR), Ministry of Health, Shah Alam, Malaysia** **Abstract** **Background: The Hajj is an annual Islamic pilgrimage to Mecca, Saudi Arabia, the holiest city for Muslims. Each year, millions of Muslims from all over the world including Malaysia converge in Mecca and its surrounding areas to perform the Hajj pilgrimage. Due to overcrowding condition during this period, pneumococcal disease is one of the commonest ailments among Hajj pilgrims and contributed to a substantial burden to the healthcare. Objective: To estimate the cost benefit of introducing the 23-valent polysaccharides pneumococcal vaccine (PPV23) among Malaysian Hajj pilgrims. Methods: A total of 40,837 Malaysian pilgrims in the year 2017 were included in this study. An economic evaluation was carried out by comparison of two cohorts – no vaccination and vaccinated with PPV23 – using a decision tree model to simulate the benefits, costs and health outcomes of introducing PPV23. The model was programmed to include pilgrims who had a one-off exposure to mass congregation for a one-year cycle length, with no further follow-up evaluation. The model framework incorporated data on epidemiology, disease incidence, vaccine efficacy and cost inputs that were retrieved from the Lembaga Tabung Haji, Malaysia, literature review of a similar population and intervention characteristics. The perspective of this study is from the Ministry of Health, Malaysia. Results: The universal PPV23 strategy showed cost-savings for inpatient and outpatient care costs. The cost averted was estimated to be between RM0.9 to 1.2 million. The hospitalization and outpatient visit rate per cohort will be reduced from 67 to 23 cases and from 1,633 to 571 cases, respectively. Herd immunity and quality of life will also be gained as intangible benefits. Conclusions: The findings from this evaluation could inform policymakers, health care managers and relevant stakeholders in decision and policy-making on pneumococcal vaccine to improve the health status of Malaysian Hajj pilgrims.**

Keywords: Cost-benefit Analysis, Costing, Pneumococcal Vaccine, PPV23, Hajj, Pneumonia

Dr. Muhammad Riaz
ERCICRLSH1803072

Identification of MDR strains of Mycobacterium tuberculosis through PCR-RFLP

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Abstract

Tuberculosis (TB) is a chronic infectious disease mainly affecting the adult population worldwide. The current study was conducted to determine the Mycobacterium tuberculosis drug resistance through PCR-RFLP. The study population consists of random sputum samples (221) from patients and suspected of drug resistance (120) cases. PCR-RFLP was used to evaluate the genetic variation in drug resistant strains against isoniazid, ethambutol, streptomycin and ofloxacin. PCR analysis confirmed 91.5% cases infected with M. tuberculosis complex. The drug resistance was found in 8.2% cases from random samples and 73.3% from suspected drug resistance cases. Single drug resistance was found in 56.1% of the isolates, with two drugs in 33.3% and to more than two drugs in 10.6% of the isolates. Only 6.5% of the cases were found resistant to ofloxacin along with isoniazid, ethambutol and streptomycin. Isoniazid resistance was found in 61% cases, 50.4% to ethambutol and 43.1% cases to streptomycin. The study concluded that mutations in drug resistant TB cases can be rapidly detected through PCR-RFLP that may be used for the diagnosis of drug resistance TB cases at the earliest.

Keywords: Tuberculosis, drug resistance, isoniazid, ethambutol, streptomycin, ofloxacin

Effect of an Educational Intervention on Dietary Diversity Practices among Public School Students of Okhaldhunga

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Abstract

Background

Binod Kumar Aryal **ERCICRLSH1803075**	**Dietary diversity (DD) is the number of different foods or food groups consumed over a given reference period. While the average Nepalese consumes sufficient calories, staple food items constitute 72 percent of the average household diet from average 6.5 food groups. The school years cover a period that runs from childhood to adolescence; these are influential stages in people's lives when lifelong dietary diversity related behaviors, beliefs and attitudes developed.** **Methods** **Cross sectional study design and quantitative method was applied for the baseline study. Educational package on dietary diversity was developed using P-model with contents being based on constructs of Health Belief Model (HBM) was applied for Quasi -experimental study (pretest-posttest control) design for intervention study. Students from grade 7and 8 were participated from randomly selected 4 secondary level public schools of of Okhaldhunga, as a study population for both baseline and intervention. The self-administered questionnaire was employed to collect the data which were entered in EpiData and analyzed on SPSS .** **Results** **During the baseline 38.6% participants with good DD practice and 18.1% of them had average or above knowledge on DD. From the descriptive analysis of intervention study, it is shown that the 15.8 % practice and 37.8% knowledge of dietary diversity has increased in post test of intervention group. Mean of perceived susceptibility, severity and benefit has increased and perceived barrier has decreased after the intervention. From hypothesis testing and independent test, it was concluded that the package was associated with knowledge and practice of dietary diversity and was effective in increasing perceived susceptibility, severity and benefit and decrease the perceived barrier.** **Conclusion** **This study reveals the poor dietary diversity knowledge and practice among participants. Educational intervention based on p-model using construct of HBM found effective to improve the knowledge, practice and belief on dietary diversity.**
Munira Shahbuddin **ERCICRLSH1803076**	**Heteropolysaccharide hydrogels for the Removal of Bacterial in Wound** **Munira Shahbuddin** **Biotechnology Department, Kulliyyah of Engineering, International Islamic University of Malaysia, Kuala Lumpur, Malaysia** **Siti Shazwani Mahamad** **Department of Biotechnology Engineering, Kulliyyah of Engineering, International Islamic University of Malaysia, P.O. Box 10, Jalan Gombak, 51300 Kuala Lumpur, Malaysia** **Raha Abdul Raus** **Department of Biotechnology Engineering, Kulliyyah of Engineering, International Islamic University of Malaysia, P.O. Box 10, Jalan Gombak, 51300 Kuala Lumpur, Malaysia** **Abstract** **Hydrogels aid the process of wound healing by providing optimal physiological conditions such as promoting a natural debridement, hydrating necrotic tissues and ability to absorb slough and exudate. In this study, heteropolysaccharide hydrogels were developed by using Konjac**

	Glucomannan (KGM) and Xanthan gum (XG) at different compositions. The hydrogels were tested in vitro for bacterial removal efficacy, using Escherichia coli species colonies from petri dish, which represented as wound bed. The colony forming unit (CFU) and optical density (OD) techniques were used to determine the number of bacterial colonies that were attached onto the hydrogels' surface. Hydrogel with 50 : 50 % composition of blend KGM-XG was found to be the most effective in the removal of Escherichia coli colonies with 13x103 CFU/mL at 95% water content. The blend KGM-XG hydrogels consist of more than 70% water, were able to sustain their shape for the use of bacterial removal and able to degrade over time in a controlled manner. The mechanism of interaction between physicochemical of hydrogels and bacterial adhesion was directed to the differences in the chemistry, water content, and the content of KGM and Xanthan in the hydrogel and play important rule in adhesion of bacterial colonies onto hydrogels' surface. Morphological studies of hydrogels showed flat interfacial morphologies, except the sample with 100% of Xanthan without KGM. We identified several factors that affect bacterial adhesion onto a polymer surface ; polymeric surface charge, water content, and topography. High hydrophobicity enabled protein adsorption onto the polymer and encourage bacterial attachment. The results present in this study suggested that the biological activities of hydrogels were not controlled only by the chemical structure but also amount of water present in the hydrogels. Clearly, the difference in the structure and chemical properties of hydrogels affect bacterial adhesion on a substrate.
 **Dr. Akila S** **ERCICRLSH1803077**	**Sports Participation and Sporting Interest During Pre- Post Gender Shift of Transgender** **Dr. Akila S** **Physical Education, Bharathiar University, Coimbatore, Tamilnadu, India** **Abstract** **The objective of the present investigation was to examine sports participation before and after gender shift of transgender and to know about their current interest in sports. Sampling: To achieve the purpose of the study 108 transgender subjects were randomly selected from Coimbatore district, Tamilnadu, India. Methods: A specially designed and validated Sports aptitude questionnaire was used to resolve the purpose of the study which drew answers to questions about leisure time hobbies of transgender, their exposure to sports pre and post gender transition, and sports participation interest. Data was collected through personal interview. Analysis: Their favorite pass time was digital media, watching television serials, few into dance and art. Their latest crush was into driving two wheelers. While studying the sports participation before gender transition, 90% of them had participated and also excelled in sports before they had been identified as transgender. 82% has participated in track and field events, 4% in Kabaddi, 2% in Volleyball, 1%in Throwball and 1% in other games. After the gender transition only 1% of the population that too very rarely had participated in games and sports. Keen watch on the current interest towards participation, 80% of the samples display interest in participation in track and field 24% in Kabaddi and track and field, those above 35years wanted to involve but in easy, simple games. Conclusion: The ecstasy of play has left no stone unturned, despite age, gender and the physical & emotional pain they suffered whilst gender**

	transition, they express play as one thing which takes them back to their childhood and which they look forward to be included in.
 **Al Razi Sena** **ERCICRLSH1803079**	**The Relationship Between Age, Gender, And Complications Neuropathy with Incidence of Diabetes Mellitus In Dr. Sardjito Hospital** **Al Razi Sena** **Department of Health Services and Information,Universitas Gadjah Mada,Yogyakarta, Indonesia** **Anisatul 'Afifah** **Department of Health Services and Information, Vocational Schools, Universitas Gadjah Mada Yogyakarta, 555281, Indonesia** **Marko Ferdian Salim** **Department of Health Services and Information, Vocational Schools, Universitas Gadjah Mada Yogyakarta, 555281, Indonesia** **Abstract** **Introduction. Diabetes Mellitus (DM) at this time is one of the problems that have an impact on productivity and reduce human resources. Diabetes Mellitus sufferers increase every year around the world, even in 2015 Indonesia ranks fifth in the world for the highest prevalence of diabetics. One of the highest complications of diabetes mellitus is neuropathy with age and gender as an influencing factor.** **Aim. To determine the relationship between age, gender, and neuropathic complications with the incidence of diabetes mellitus in Dr. Sardjito Hospital Yogyakarta.** **Method. This study used cross sectional observational analytic study. The independent variables in this research are Diabetes Type 1 and Type 2, while the dependent variable is Age, Gender and complications of Neuropathy. Data analysis technique used is Univariate with frequency distribution and Bivariate with Chi Square test. Types of secondary data obtained from observations of medical records database of Diabetes Mellitus patients in 2011-2016 at Dr. Sardjito Hospital as many as 1554 patients.** **Results. Chi square test results showed there was no correlation between the gender of DM patients (p-value = 0.4276> α = 0,05), there is a relationship between DM with patient age** **(P-value = 2.2e-16 <α = 0,05), and there is a relationship between diabetes with complications of neuropathy (p-value = 5.736e-06 <α = 0,05).** **Conclusion. The risk factors of age and complications of neuropathy has a relationship with the incidence of diabetes mellitus, whereas gender risk factors have no relationship** **Keywords: Diabetes mellitus, gender, age, neuropathy.**
Kayatri Govindaraju **ERCICRLSH1803081**	**Intracellular Stored Calcium Plays a Minor Role in GQ-Coupled Receptor-Mediated Contraction In Rat Airway Smooth Muscle** **Kayatri Govindaraju** **Department of Biomedical Sciences,University of Nottingham, Malaysia Campus, Kajang, Malaysia** **MK Lee** **Department of Biomedical Sciences, University of Nottingham Malaysia Campus, Jalan Broga, 43500 Semenyih, Selangor Darul Ehsan, Malaysia**

	Y Mbaki **School of Life Sciences, University of Nottingham, Medical School Queen's Medical Centre, Nottingham NG72UH** **KN Ting** **Department of Biomedical Sciences, University of Nottingham Malaysia Campus, Jalan Broga, 43500 Semenyih, Selangor Darul Ehsan, Malaysia** **Abstract** **The general notion of activation of Gq-protein coupled receptors involves the mobilisation of stored and extracellular calcium and leads to smooth muscle tissue contraction. The aim of this study was to investigate the involvement of calcium mediated contractions in vascular and airway smooth muscles. Using the standard organ bath procedures, aortic and tracheal rings were obtained from 6 to 8 week-old male Sprague Dawley rats. To activate the Gq protein receptors, phenylephrine (PE), an α1-adrenoceptor agonist, and carbachol, a M3 cholinoceptor agonist, was added to baths containing the aortic and tracheal rings, respectively. The maximum response (Emax) to PE was reduced from 158.8 ± 11.8% (n=6) to 62.5 ± 12.4 % (n=8) upon removal of extracellular calcium in Krebs-Ringer solution. Maximal response to PE was also suppressed in the presence of nifedipine, a L-type Ca2+ channel inhibitor, (70.3 ± 11 %, n=8) and SKF96365, a canonical transient receptor potential channel inhibitor, (26.7 ± 13.2 %, n=5) when the influx of extracellular calcium was blocked. Removal of stored calcium also attenuated the PE contraction ($p<0.05$). Contractile responses to carbachol in the airway were totally abolished in the absence of calcium in the Krebs-Ringer solution (208.6 ± 23 % [n=8] vs 10.7 ± 4.2 % [n=3]). This is different from the aorta where a measurable response was detected despite the absence of external calcium. Blockage of extracellular calcium influx in the presence of nifedipine and SKF96365 also showed similar lack of responses in trachea. Interestingly, removal of stored calcium did not affect the carbachol responses ($p>0.05$). From these observations, we conclude that the role of stored and extracellular calcium in Gq protein activation is not the same across different type of smooth muscle tissues.** **Keywords : phenylephrine, carbachol, stored and extracellular calcium, aorta, trachea**
Mohamed Marzok **ERCICRLSH1803085**	**Comparative antinociceptive and sedative effects of epidural romifidine and detomidine in buffalo (Bubalus bubalis)** **Mohamed Marzok** **Department of Veterinary Surgery, Faculty of Veterinary Medicine, Kafrelsheikh University, Kafrelsheikh, Egypt** **S. A. El-khodery** **El-khodery S. A, Department of Internal Medicine and Infectious Diseases, Faculty of Veterinary Medicine, Mansoura University, Mansoura 35516, Egypt** **Absract** **In this study, comparative antinociceptive and sedative effects of epidural administration of romifidine and detomidine in buffalo were evaluated.**

	Eighteen healthy adult buffalo, allocated randomly in three groups (two experimental and one control; n=6) received either 50 µg/kg of romifidine or detomidine diluted in sterile saline (0.9 per cent) to a final volume of 20 ml, or an equivalent volume of sterile saline epidurally. Antinociception, sedation and ataxia parameters were recorded immediately after drug administration. Epidural romifidine and detomidine produced mild to deep sedation and complete antinociception of the perineum, inguinal area and flank, and extended distally to the coronary band of the hind limbs and cranially to the chest area. Times to onset of antinociception and sedation were significantly shorter with romifidine than with detomidine. The antinociceptive and sedative effects were significantly longer with romifidine than with detomidine. Romifidine or detomidine could be used to provide a reliable, long-lasting and cost-effective method for achieving epidural anaesthesia for standing surgical procedures in buffalo. Romifidin induces a longer antinociceptive effect and a more rapid onset than detomidine. Consequently, epidural romifidine may offer better therapeutic benefits in the management of acute postoperative pain.
 **Tiziano Zanin ERCICRLSH1803055**	**A reality in a developing country:diagnosis of cancer with the activation of automated immunohistochemistry** **Tiziano Zanin** **S.C. Laboratorio di Genetica Umana, Via Volta 6, E.O. Ospedale Galliera, Genova, Italy** **Abstract** **From September 2015 at San Giovanni di Dio Hospital in Tanguieta – Benin – a Clinical Pathology Laboratoy is active with the aim to make diagnosis and address towards adequate therapeutic programs patients affected from cancer and other diseases. The Laboratory has been equipped with a telepathology system and from 2018 with an automatic system for immunochemistry** **Keywords:** **Telepathology, Histopathology laboratory, Immunohistochemistry**
 **Chin Hou Yin YRICRLSH1803051**	**Effect Of Drop Sets On Muscle Strength And Endurance Of Trunk Extensors Among Trained Men** **Chin Hou Yin** **Year BPT, Department of Physiotherapy, Universiti Tunku Abdul Rahman, Malaysia** **Nizar Abdul Majeedkutty** **Senior Lecturer, Department of Physiotherapy, Universiti Tunku Abdul Rahman, Malaysia** **Mohammed Abdulrazzaq Jabbar** **Senior Lecturer, Department of Population Medicine, Universiti Tunku Abdul Rahman, Malaysia** **Abstract** **Drop sets training has been suggested as one of the best high intensity training techniques of all time. Though several studies have shown the effect of drop sets on limb muscles; there is a relative dearth of research on**

	the effect of drop sets on spinal musculature. This study was aimed to determine the effect of drop sets on muscle strength and endurance of trunk extensors among trained men. A randomized controlled trial was conducted for 6 weeks among 30 trained men recruited through convenient sampling. Participants were randomly assigned into two groups; experimental group that underwent drop sets and control group submitted to high load resistance training. A pre-test and post-test measurement of muscle strength and endurance for both groups was carried out using 1RM Strength Test and Biering-Sorensen test respectively. Data were statistically analysed by Pearson correlation and t-student tests, with a significance level of $p<0.05$. At the end of the trial, significant changes are shown in pre-test and post-test scores of muscle strength ($p=0.001$) and endurance ($p=0.003$) of the trunk extensors in the drop sets training group. The findings proved that drop sets can simultaneously improve muscle strength and endurance of trunk extensors with short term training. In conclusion, drop sets training achieved superior gains in muscle strength and endurance of the trunk extensors compared to high load training. In this context, this programme could potentially be used to improve trunk extensor muscle performance in trained men. **Keywords: drop sets, high load resistance training, trunk extensors, muscle strength, endurance**
Riyan Rahmat Ramadhan Tanjung **YRICRLSH1803052**	**The ChangesiIn Eating Habit After Nutritional Education On Anemia Maternal** **Riyan Rahmat Ramadhan Tanjung** **Publich Health Faculty, State Islamic University of North Sumatera, Medan, Indonesia** **Samsul Askhori** **public health, state islamic university of north sumatera medan, Indonesia** **Zata Ismah** **public health, state islamic university of north sumatera medan, Indonesia** **Mariana** **Public Helath Sains Department, Faculty of Medicine Sriwijaya University, Indonesia** **Abstract** **According to WHO (2008), globally the prevalence of anemia in pregnant women worldwide is 41.8%. Anemic pregnant women are wrong factors due to poor diet. Nutrition education is one of the preventive activities in improving the diet of pregnant women. This study aims to determine changes in consumption of eating patterns in anemic pregnant women after being given nutritional education in the city of Palembang. This type of research uses quantitative methods with an experimental desain. The population in this study were pregnant women in Palembang City. The study sample consisted of 41 respondents (18 anemia, 23 normal). The collection technique used random sampling technique. Statistical test results show that there is a significant influence between nutritional education and rice consumption patterns (p-value 0.013), animal protein consumption (p-value 0.015), vegetables (p-value 0.03) in pregnant women.** **Keywords: Education, Nutrition, Pregnant Women, Anemia**

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- 2018 – 8th International Conference on Research in Life-Sciences & Healthcare (ICRLSH), 22-23 Dec, Bangkok
- 2018 – 9th International Conference on Research in Life-Sciences & Healthcare (ICRLSH), 27-28 Dec, Dubai
- 2018 – 10th International Conference on Research in Life-Sciences & Healthcare (ICRLSH), 30-31 Dec, Bali
- 2019 – 2nd International Conference on Research in Life-Sciences & Healthcare (ICRLSH), 08-09 Feb, Bangkok
- 2019 International Conference on Research in Life-Sciences & Healthcare (ICRLSH), 27-28 Feb, Dubai
- 2019 – 3rd International Conference on Research in Life-Sciences & Healthcare (ICRLSH), 16-17 March, Singapore
- 2019 – 4th International Conference on Research in Life-Sciences & Healthcare (ICRLSH), 12-13 April, London