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PROGRAMME OF EVENTS

DAY 1			
Arrival and Registration of Participants	7:30am - 8:30am		
Session 1: Oral Presentations Tea Break Opening Ceremony	9:00am - 10:30am 10:30am - 11:00am 11:00am - 1:00pm	10 Presentations 1-10	Prof. C. U. Eze
Session 2: Oral Presentations Lunch	1:00pm - 1:45pm 1:45pm - 2:15pm	5 Presentations 11-15	Ass. Prof. Charles Ezema
Session 3: Oral Presentations	2:30pm - 2:45pm	5 Presentations 16-20	Dr. Onyemelukwe A
DAY 2			
Session 4: Oral Presentations Tea Break	9:00am - 10:30am 10:30am - 11:00am	10 Presentations 21-30	Dr. Candice Anyachukwu
Session 5: Virtual Presentations Lunch	11:00am - 1:00pm 1:00pm - 1:30pm	19 Presentations 1-19	Dr. Enyi Etiaba
Session 6: Oral Presentations Chairman's Closing Remarks End	1:45pm - 2:30pm	10 Presentations 31-40	Dr. Julius Agbo



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CONFERENCE SESSIONS & ABSTRACTS

SESSION 1

TEXTURE ANALYSIS OF ULTRASOUND GENERATED PLACENTA IMAGES IN DISTINGUISHING BETWEEN NORMAL AND ABNORMAL PLACENTA TISSUE.

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Introduction: Adequate growth and development of the foetus lie on the supply of nutrients and oxygen by the placenta. Sonographic examination of the placenta is mainly by assessment of its echogenicity which is subjective with its associated errors. Thus, there is a need to have a quantitative means of assessing the placenta. This study is therefore aimed at using the statistical texture analysis method to characterize ultrasound images in women with normal pregnancy outcomes and those with pregnancy complications and determining the accuracy of different statistical texture descriptors in predicting pregnancy outcomes.
Materials and Methods: This prospective longitudinal study involved 500 antenatal patients in a private hospital in Enugu. Transabdominal ultrasound examination was carried out using a DC-N3 Pro ultrasound machine fitted with a 3.5 MHz transducer manufactured by Shenzhen Mindray Biomedical Electronics Co, Ltd China in 2017. The images of the placenta were extracted directly from the scanner, saved in a solid-state memory device and then loaded into an HP 2000TM laptop manufactured in 2018 for viewing and analysis using texture analysis software MaZda® version 4.7. Two regions of interest were randomly selected from the placenta tissues and Grey level Co-occurrence matrix (GLCM), run-length matrix (RLM), absolute gradient, and histogram were computed for each image. The outputs of these computations were classified into normal and abnormal placentas using an artificial neural network (ANN) and K-nearest neighbour (K-NN).
Results: All discriminating parameters for GLCM, RLM, and Histogram shows a significant statistical difference between normal and abnormal placenta tissues ($p < 0.05$). Only gradient variance shows a significant difference between normal and abnormal placenta among descriptors using an absolute gradient. K-NN has better classification accuracy when compared with ANN.
Conclusion: Texture analysis can predict abnormal placentation in pregnancy and so can help in identifying those at risk of abnormal pregnancy outcomes.
Keywords: Texture; Analysis; Ultrasound; Images; Placenta; Abnormal.

PREVALENCE AND ANTIBIOTIC RESISTANCE PROFILES OF LISTERIA MONOCYTOGENES IN READY-TO-EAT FOODS AND VEGETABLE SALAD SOLD IN MAJOR MARKETS IN ENUGU

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Introduction: Listeria monocytogenes is a food borne pathogen which is highly ranked as the most fatal agent of food poisoning. Unfortunately, it is not commonly investigated in our environment. The aim of this study was to determine the prevalence and antibiotic resistance profile of listeria monocytogenes in ready-to-eat food and vegetable salad sold in major markets in Enugu
Materials and Method: A total of 150 samples of ready-to-eat foods (African salad (Abacha), Suya-beef, roasted chicken) and vegetable salad, 30 each were obtained from 3 major markets (Ogbete, Garriki and Abakpa) in Enugu and were tested for the presence of listeria monocytogenes. The organism was isolated using International Standard Organization (ISO) procedure on Palcam and listeria chromogenic agar. Biochemical tests were done for further identification. The isolates were standardized with 0.5 McFarland standard before been subjected to antimicrobial susceptibility testing using disc diffusion techniques with ten antibiotics by measuring the zone of inhibition and were identified as sensitive, resistance or intermediate towards the antibiotics by referring to CLSI interpretative zone diameter of the antibiotic and the MAR index calculated.
Result: A total of 19(12.6%) Listeria monocytogenes was isolated from the ready-to-eat foods and salad. Abacha has the highest prevalence 7(4.6%) Salad 4 5(3.3%) Roasted Chicken 4(2.6%), Suya (beef) 3(2.0%) while 3(2.0%) of the isolate were listeria specie. All the isolates were sensitive to Amoxicillin, cephalothin, gentamicin and ciprofloxacin. Most isolates had Multiple antibiotic resistance (resistance to more than three antibiotics). The MAR index ranges between 0.2 and 1.0
Conclusion: There is presence of Listeria monocytogenes in the study area with Abacha having the highest prevalence. Therefore, Improved hygienic practices are very important in the elimination of listeria monocytogenes transmission in the food chain. There is also a need for routine screening of food for Listeria monocytogenes and awareness on its prevention and control.
Key Words: Listeria monocytogenes, prevalence, antibiotic resistance, ready-to-eat food and salad

INFLUENCE OF STRESS ON WORK BEHAVIOUR AMONG NURSES IN FEDERAL TEACHING HOSPITAL, ABAKILIKI EBONYI STATE- NIGERIA

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Introduction: The nurse's role has long been regarded as stress-filled based upon the physical labour, human suffering, work hours, staffing, and interpersonal relationships that are central to the work nurses do. This is because nursing is a job that requires the expenditure of physical, emotional and mental energy on many levels. The study aims at ascertaining the influence of stress on work Behavior among nurses in Federal Teaching Hospital Abakaliki (FUTHA) and the coping strategies to reduce stress.
Method: The study adopted a descriptive research design and simple random sampling technique with a sample size of 300 participants drawn from nurses at Accident and Emergency, Male Medical, Female Medical, Labour, New Born, CHEW, ICU, and Paediatrics determined using proportionate sampling. Structured questionnaire was used to collect data and instrument was validated using Pearson Moment Correlation at a reliability index of 0.84. Data was collected, analysed using SPSS Version 20 and the results were presented in tables, frequencies, percentages, mean and standard deviations.
Results: Findings of the study showed that the large proportion 229 (76.3%) identified workload as the major cause of stress, 220 (73.5) respondents affirmed lack of staff support while 181 (60.3%) identified death and dying patients as the major source of stress. Also, feeling of drained tendency during or after work has the highest mean score of 2.67 as perceived effect of stress. Similarly, 251 (83.7%) participants identified discussing issues over with physicians/colleagues as a major coping strategy.
Conclusion: Work-related stress has a significant negative influence on work behaviour among nurses in Federal Teaching Hospital Abakaliki (FUTHA) like burnout syndrome.
Keywords: Influence, stress, work behaviour, nurses, FUTHA

EVALUATION OF NIGERIAN RADIOGRAPHY LECTURERS VIEWS ON THE USE OF ONLINE LEARNING METHODS IN COVID -19 ERA.

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Introduction: Coronavirus disease 2019 (covid-19) is an acute respiratory disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) which has ravaged the world since 2019. Globally, coronavirus death toll as at April 01 2022 was 6,168,882 with Nigeria having a share of 3142 deaths. Due to the effects of covid-19, United Nations policy brief on education during covid-19 and beyond recommended distance learning methods by shifting base to online lessons. This study was aimed at evaluating Nigerian Radiography lecturers views towards online lectures in covid-19 era.
Materials and Method: Purposive sampling technique was used to select 72 Nigerian Radiography lecturers in a cross-sectional survey design from May to July 2021 using pre-tested structured questionnaires requiring information on: knowledge of the severity of covid-19 and online lectures, preference of lecturing methods (contact/online lectures) and the reasons, and whether the hiccups to online lectures were enough deterrent to their use. These subscales have Cronbach's alpha coefficients of 0.90, 0.87, 0.81, 0.86, and 0.80 respectively.
Results: Most respondents (83.3%, n = 60) knew about the severity of covid-19 whereas all the respondents (100%, n =72) knew about online lectures but more than half (58.3%, n = 42) preferred contact learning. Nevertheless, most respondents (70.8%, n = 51) agreed to the use of online lectures to reduce the impact of covid-19 and also advocated for its continued use. They felt this will also give lecturers more time for research activities. The respondents (87.5%, n = 63) also believed that the hiccups of using online learning should not deter its use.
Conclusion: Most Nigerian Radiography lecturers agreed on the use of online lectures during covid-19 era and beyond but preferred contact lectures possibly due to the hiccups of online lectures. This calls for professional development on the use of ICT to adapt to new teaching methodologies.
Key words: Radiography, Nigerian lecturers, online learning, covid-19 era.

BASILAR ARTERY MORPHOMETRY IN APPARENTLY HEALTHY ADULTS IN ENUGU, SOUTH-EAST NIGERIA

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Introduction: The basilar artery (BA) is a midline blood vessel that forms the spine of the posterior cerebral circulation. Changes in size, particularly the diameter serve as a predictive marker of cerebrovascular events. There is paucity of information regarding the size of the BA among Nigerians. The aim of the study was to provide a baseline value for BA diameter in apparently healthy adults in Enugu, South-east Nigeria using computed tomography and to note any gender difference in the vessel diameter.
Materials and Methods: This was a cross-sectional prospective study involving 298 subjects (150 males and 148 females) consecutively recruited and who met the selection criteria. This study was conducted at University of Nigeria Teaching Hospital Ituku/Ozalla, Enugu State and samples were drawn from patients who were referred to Radiation medicine Department for CT brain. Contrast-enhanced CT brain was performed using standard scan parameters. Scans with normal radiologist's reports were selected and transverse diameter of the BA was measured on axial images at the midpons level. These measurements were obtained using a 64-slice brilliance CT Philips machine manufactured in January, 2010 with REF/MODEL: 455011009021.
Results: The mean age of the participants was 49.4yrs (±14yrs). The BA diameter ranged from 3.1mm to 5.5mm with a mean diameter of 4.2mm (±0.5mm). The males had significantly larger BA than the females. The BA was also noted to be larger in older age groups, a trend which was observed in both genders.
Conclusion: The study has established baseline values for basilar artery diameter in Enugu. Values above or below could be predictive of cerebrovascular events.
Keywords: Basilar artery diameter, computed tomography, Enugu

HANDLING OF PATHOLOGY SPECIMENS IN MORBID ANATOMY LABORATORIES IN COVID-19 ERA: ASSOCIATED RISKS AND SAFETY GUIDELINES AT A GLANCE

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Introduction: Severe Acute Respiratory Syndrome Corona Virus-2 (SARS-CoV-2) has remained a major global health concern since late 2019. An exponential increase in the transmission of virus has led to over 477 million infections and 6 million deaths worldwide. The Health care sectors have been affected and this includes the Medical Laboratory personnel in the Cellular and surgical pathology laboratories.
Materials and Methods: An in-depth review of associated risks involved in handling pathological specimens was made as well as safety guidelines proposed and further discussed.
Results: In obtaining cytological specimens, direct contact is made with patients or perhaps under fixed samples are received for processing. More so, autopsy of suspected and confirmed COVID-19 patients may require handling of fresh or poorly fixed biopsy specimens by laboratory personnel for further histological processing. In view of this, the present work takes a glance at the challenges and associated risks in handling of cytological and biopsy specimens in the context of COVID-19 global health threat. Additionally, details on the safety guidelines in specimen handling and processing to be adopted by laboratory personnel have been included as a way to minimize the risk of contamination from specimens received in the laboratories. The proper use of personal protective equipment (PPE) remains a major determinant of safety amidst other standard safety measures including disinfection, use of appropriate fixatives and safety cabinet in handling all cytological preparations.
Conclusion: It is imperative for the Cytologists and Histoscientists community to be better equipped to cope with the waves which the SARS-CoV-2 creates and other threats of viral origin which may arise in future. This paper shares some major highlights in the management of cytological and surgical pathology specimens in the Morbid Anatomy laboratories in order to encourage safety consciousness during the COVID-19 pandemic.
Keywords: Cytology, Histopathology; Morbid Anatomy; Covid-19; Specimen handling

SELF-DIRECTED LEARNING READINESS IN FLIPPED CLASSROOM MODEL OF TEACHING: A QUASI-EXPERIMENTAL STUDY

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Introduction: Despite the new pedagogies that promote active learning, nurse educators are confronted with mixed reports on their usefulness in enhancing self-directed learning (SDL). The aim of this study was to assess the level of SDL readiness of nursing undergraduates exposed to flipped classroom models (FCM) and traditional teaching methods (TTM).
Materials and Methods: This quasi-experimental study involved sixty-four 400 level nursing undergraduates selected from two tertiary institutions and were grouped into the FCM group and the TTM group of 32 participants each. Participants were classified into high mental ability (HMA) and low mental ability (HMA) (CGPA ≥ 2; HMA, and CGPA of<2; LMA) using the prior three-year transcript and truly represented in the groups. The validated self-developed demographic questions and the Self-Directed Learning Readiness Scale (SDLRS) were used to collect data. Mean value scores of ≥ 3.75 implied the participant agreed with the statement and identified the items as describing his/her characteristics. A 150 score indicated a high degree of SDL readiness whereas a score ≤ 150 indicated a low level. Data collected were subjected to descriptive and inferential statistics and were analysed using an independent sample t-test and the paired sample t-test.
Results: Nursing undergraduates in the FCM showed positive preparedness at the pre-intervention stage (3.95±0.35) although the TTM showed more positive preparedness (3.99±0.39). In the post-intervention stage, the FCM group showed an SDL value of 0.1760 while the TTM group had 0.08000, ($p < 0.05$). Although the females exposed to FCM did considerably better than their male counterparts after receiving the second intervention, the males had considerable improvements in their SDL readiness though their performance was not statistically significant ($p = 0.347$).
Conclusions: Flipped method of learning is capable of improving students' SDL readiness and should be encouraged as it provides a viable alternative to the TTM.
Keywords: Nursing education; Flipped classroom model; Self-directed learning

KNOWLEDGE, PREVENTIVE PRACTICES AND TREATMENT BEHAVIOUR TOWARDS CANDIDIASIS AMONG PREGNANT WOMEN ATTENDING ANTENATAL CLINIC AT UNTH, ITUKU-OZALLA, ENUGU STATE.

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Introduction: Vaginal Candidiasis is one of the most common and frequently distressing infection for many pregnant women. It is an important cause of morbidity in pregnancy including abortion, Candida chorio-amnionitis, premature rupture of membranes, preterm delivery, emotional stress and suppression of immune system and generally poor pregnancy outcome. Thus its prevention and treatment is integral in the provision of antenatal care. The study was therefore designed to assess the knowledge, preventive practices and treatment behaviour towards candidiasis among pregnant women attending antenatal clinic at UNTH, Ituku-Ozalla, Enugu State.
Materials and methods: This descriptive survey was conducted among a population of 320 pregnant women and a sample size of 171 at UNTH Ituku-Ozalla. Respondents were recruited using simple random sampling. A researcher-developed questionnaire with a reliability index of 0.85 Cronbach's alpha was the instrument of data collection. Ethical clearance was obtained from University of Nigeria, Teaching Hospital. Data was presented in tables and analysed using descriptive statistics of frequency, percentages, means and standard deviation; and Chi square (P 0.05.) inferential statistics. IBM SPSS statistics software version 25 was used in the analysis of data
Results: More than half of the respondents (65.5%, n=112) had good knowledge of candidiasis. With respect to preventive practices, cleaning the vulva after urinating (97%, n=169), use of cotton pants and tights (83.5, n=143) and a general practice of personal hygiene (80.7%, n=138) were among the practices respondents employed to prevent candidiasis. Of the 69 (40.3%) who affirmed to have experienced candida in pregnancy, 79.9% (55) sought treatment by visiting the hospital (81.8%, n=45) while 18.2%(n=10) resorted to self-treatment through the use of over-the-counter drugs and herbal preparations. Approximately average of the respondents who treated candidiasis in pregnancy had their husband/partner also treated (49.3%, n=27). Most of the women who had candidiasis in pregnancy reported being cured after treatment (87.9%, n=48); few had reoccurrence (21.7%, n=12), of which they mainly visited a hospital (26.7%, n=15) or repeated the dose given before (20.0%, n=11). The study found no significant association between knowledge of candidiasis and maternal level of education ($X2=3.963$, $P=0.396$).
Conclusion: Women in the study population had good knowledge of candidiasis in pregnancy, practiced recommended strategies for preventing candidiasis in pregnancy but were found wanting with respect to following evidence-based guidelines for the treatment of candidiasis in pregnancy. Pregnant women should be encouraged to continue to seek expert medical care for the treatment of vaginal candidiasis in order to achieve the best outcome for both mother and baby
Keywords: Candidiasis, Knowledge, Pregnant women, Preventive practices, Treatment Behaviour

ADHERENCE TO STANDARD PRACTICE AMONG NIGERIAN RADIOGRAPHERS DURING THE COVID-19 PANDEMIC IN NIGERIA.

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Introduction: Coronavirus disease 2019 (COVID-19) has caused high morbidity and mortality globally. The disease causes respiratory, cardiovascular and neurological complications requiring a multidisciplinary healthcare approach. Therefore, Nigerian radiographers are among the frontline health workers combating the pandemic. This study aimed to ascertain the level of adherence to standard practice among Nigerian radiographers during the COVID-19 pandemic.
Material and Method: Radiographers across the six geological zones in Nigeria (255) who were recruited using the snowballing method responded to a researchers' developed questionnaire on knowledge of COVID-19, attitude, practices, and standard precaution adherence. The instrument was face and content validated by five specialists (two survey experts and three radiographers) working with the University of Nigeria and Gregory University, Abia State. Ethical approval was obtained from the Health Research and Ethics Committee of the University of Nigeria Teaching Hospital, Ituku Ozalla, Enugu State. Data were analysed using descriptive statistics, Pearson's correlation, and one-way ANOVA.
Results: Only 44 (17.3%) of Nigerian radiographers were actively involved in the management of confirmed cases. Their adherence to standard precautions averaged 56.08 ± 18.56%, while levels of adherence with the standard precautions differed across educational qualification ($F [3, 251] = 4.53$, $P = 0.004$) and years-in-practice ($F [4, 250] = 4.17$, $P = 0.003$).
Conclusion: The participants' adherence to standard precautions was suboptimal due to inadequate infectious disease training and personal protective equipment supply.
Key Words: COVID-19 pandemic, Nigerian Radiographers, Standard Precautions.

THE IMPACT OF AMBULATORY MOBILITY AID DEVICES ON PERCEIVED EXERTION AND BALANCE OF OLDER ADULTS IN ENUGU METROPOLIS

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Introduction: The elderly is at risk of contracting Covid-19 which may lead to prolonged immobilization during the management. Prolonged immobilization usually results in general body deconditioning including muscle weakness. Such individuals may require mobilization with aids. This study examined the impact of ambulatory mobility aid devices on perceived exertion and balance of older adults in Enugu metropolis.
Method: The study was a quasi-experimental study and utilized purposive sampling technique in sampling 132 elderly respondents aged 60 years and above in Enugu State. The ambulatory mobility aid devices used were Zimmer frame and a cane. The participants served as their own control with the use of no ambulatory aid as a baseline. The participants performed a 6-minutes' walk test using the selected walking aids on three separate days. Berg balance scale was used to measure balance while the Borgs' scale of perceived exertion (PE) was used to measure rate of perceived exertion. Data were analysed using ANOVA at $p < 0.05$ level of significance.
Results: The rate of PE of after ambulation with Zimmer frame and walking cane increased as opposed to after ambulation without aid. The balance of the participants after ambulation with Zimmer frame and cane ranged between 49.62 ± 4.53 and 50.25 ± 5.08 respectively as opposed to at rest (57.48 ± 1.50) and after ambulation without aid (55.42 ± 3.98).
Conclusion: Zimmer frame causes greater increase in the levels of PE when compared to a cane and also more effective in providing balance and decreasing postural sway for users as opposed to a cane.
Keywords: Ambulation, mobility aid devices, perceived exertion, balance, older adults.

SESSION 2

PRACTICE OF NON-PHARMACEUTICAL PRECAUTIONS AGAINST COVID-19 AMONG MEDICAL RADIOGRAPHERS WORKING IN TERTIARY HOSPITALS WITHIN ENUGU STATE

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Introduction: Viruses are associated with mutations over time which can affect the virus' properties like ease of spread, disease severity, and diagnostic tools. Radiographers are notably frontline workers in the care of COVID-19 patients and thus are at a substantially increased risk of becoming infected with the virus which could cause considerable harm. The objective of this study is to assess the availability and practice of non-pharmaceutical precautions against COVID-19 among medical radiographers working in tertiary hospitals within Enugu state.
Materials and Methods: This was a cross-sectional prospective study design. Convenience sampling techniques was used in selecting 33 practicing radiographers who were engaged in examining COVID-19 patients during the research period in the three tertiary hospitals within Enugu state who consented to participate in the study. Using a semi-structured validated questionnaire, information obtained from the respondents covered their socio-demographic characteristics and the study's objectives. Data was analysed using SPSS version 22 (Statistical Package for Social Science). Descriptive statistics like frequencies and percentages were used in the analysis.
Results: Majority of the respondents were males (72.7%, n=24) and 97.0% (n=32) had BSc as their highest qualifications. Those with 5-10years work experience were highest in number (60.6%, n=20) and distribution according to place of work were: 42.4% in UNTH (n=14), 36.4% in NOHE (n=12) and 21.2% in ESUTH (n=7). On availability of non-pharmaceutical precaution facilities, 57.6% (n=19) and 54.5% (n=18) of the respondents respectively admitted that automatic soap dispenser and tap water were always available, and 84.8% (n=28) and 81.8% (n=28) of the respondents respectively agreed that alcohol-based hand sanitizer and disinfectant were always available. On the other hand, 93.9% (n=31) and 78.8% (n=26) of the respondents respectively reported that disposable towel and automatic hand dryer were not always available. On the frequency of disinfecting radiographic equipment after examining COVID-19 patient, 93.9% (n=31) of the respondents affirmed that the radiographic equipment were cleaned immediately after examination. On radiographers' compliance towards the use of personal protection equipment, 69.7% (n=23) always complied with the use of personal protective equipment (PPE) and 66.7% (n= 22) admitted to the use of face mask.
Conclusion: COVID-19 transmission control is extremely challenging for every radiology department. The protection of the staff and public must be guaranteed. An organized and coordinated organization is required for a radiology department to ensure all necessary exams are carried out at minimal infection risk.
Keywords: COVID-19, radiographers, non-pharmaceutical precautions, compliance.

HIGH PERFORMANCE LIQUID CHROMATOGRAPHY (HPLC); THE BENCHMARK FOR NEWBORN SCREENING

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Introduction: Nigeria gives birth to about 150,000 babies with sickle cell (SCD) yearly. To this figure, if no drastic and positive measure is taken, a hundred percent increment might occur by the year 2050. This speculation poses a serious health and economic burden to the country in the years ahead. Haemoglobinopathy being an abnormal inherited disorder of the haemoglobin (Hb) structure and SCD is one of such disorder has no available cure till date. New-born screening (NBS) for SCD is a program that allows for neonatal detection of the abnormal haemoglobins either in homozygous or heterozygous state. This early detection proffers an informed parent/guardian counselling, educating as well as early management platform. Nigeria with her high SCD prevalence has no available NBS program till date. This research aims at establishing a standard method for neonatal screening.
Materials: An ethical clearance was procured from the Jos University Teaching Hospital Ethical Committee. Informed consents were obtained from the subject's parents/guidance prior to the study and structured questionnaire was administered and obtained from the subjects. A total of three hundred and twenty-nine (329) infants of ages zero – nine months; that presented as Hb AA in electrophoretic method and negative or indecisive with Hb solubility were recruited for this study. This population (329) was made up of 164 (49.8%) male and 165 (50.2%) female. This population was further classified into 323 (98.2%); negative on Hb solubility method, while 6 (1.8%) were indecisive on Hb solubility method.
Materials and Methods: The study adopted a purposive, cross-sectional experimental design. Data were analysed using Statistical Package for Social Sciences (SPSS) version 23 and results compared using Student's Turkey test. At 95% confidence intervals, probability values less than 0.05($P<0.05$) were considered statistically significant.
A total of 3mls of venous blood was aseptically collected from each subject into an EDTA Z-5 bottle. The content was immediately mixed carefully by several inversions of the properly closed bottle; 1ml was transferred to a cryovial with the aid of a disposable pipette for HPLC. The remaining 2mls were used for Hb electrophoresis using cellulose acetate paper under alkaline medium and Hb solubility using Italo's method. All the Hb AAs, Hb solubility negative or indecisive samples were selectively incorporated for HPLC method using known controls.
Results: Of the 329 subjects, 262 (79.7%) had the normal Hb A and F and this was significantly low at $P<0.05$ as the calculated P-value was 0.001. The number of subjects that had Hb S with Hb A and other abnormal Hbs was 44 (13.4%). This value was significantly high at $P<0.05$. Lastly, 23 subjects (6.9%) had Hb A with other forms of abnormal Hb other than Hb S. This also was statistically significant at $P<0.05$.
Conclusion: It was concluded that Hb solubility and Hb electrophoretic methods were inadequate for neonatal screening.
Keywords: sickle cell disease, new born screening, High Performance Liquid Chromatography.

ASSESSMENT OF METABOLIC SYNDROME AMONG STUDENTS OF FACULTY OF HEALTH SCIENCES AND TECHNOLOGY, UNIVERSITY OF NIGERIA ENUGU CAMPUS IN THIS ERA OF COVID-19 PANDEMIC

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Introduction: Metabolic syndrome (MetS) is an increasing public health issue involving a combination of risk factors which expose an individual to life-threatening diseases like diabetes mellitus, cardiovascular disease and stroke. MetS though a pathological condition is asymptomatic in an individual until it develops into a disease. This study assessed the prevalence of metabolic syndrome among students of the Faculty of Health Sciences and Technology, University of Nigeria, Enugu campus.
Materials and Methods: Sixty apparently healthy students of the above-mentioned faculty were randomly selected for this cross-sectional study. The anthropometric indices of the students were measured and body mass index (BMI) calculated. Blood pressure measurements were carried out twice for each student using an automatic sphygmomanometer (CareTouch #PSA-AC, Brooklyn N.Y 11220, 2016) and the average recorded. Five millilitres of fasting blood samples was collected from the participants and used for determination of blood glucose (glucose oxidase method) and lipid profile (enzymatic colorimetric methods). Metabolic syndrome was assessed using three different criteria: World Health Organization (WHO), National Cholesterol Education Program – Adult Treatment Panel III (NCEP-ATP III) and International Diabetes Federation (IDF) criteria.
Results: None of the participants had MetS according to WHO criteria, using NCEP-ATP III criteria, only one female participant had MetS while in IDF criteria, metabolic syndrome was found in three female and none in the male participants. In all the three different criteria assessed for MetS, low HDL-C was the most common trait in both male and female participants.
Conclusion: The prevalence of metabolic syndrome among students of FHST, UNEC was found surprisingly to be very low even in this era of Covid-19 pandemic.
Keywords: Metabolic Syndrome, Covid-19, FHST, Students.

KNOWLEDGE, ATTITUDE AND PRACTICE OF TESTICULAR SELF EXAMINATION AMONG MALE UNDERGRADUATE STUDENTS OF UNIVERSITY OF NIGERIA ENUGU CAMPUS

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Introduction: Testicular cancer (TC) is the most common cancer in males between the age of 15 and 34 years with an incidence rates for new cases rising on an average of 0.8% each year over the last 10 years. Testicular self-examination (TSE) is the recommended preventive approach to reduce testicular Cancer (TC) mortality and morbidity. The objective of the study was to examine the knowledge, attitude and practice of TSE among male undergraduate students.
Materials and Methods: A descriptive research design with a sample of 343 students was recruited for the study. The students were stratified based on their faculties and convenient sampling was used to select the respondents. A self-structured questionnaire was used for data collection.
Result: The findings showed that more than average (57.7%) have heard about TSE, but the level of knowledge is poor, as only (35%) have good knowledge. Their attitude is poor as (83.8%) feels it is embarrassing to touch their scrotum. Due to the poor knowledge and attitude, the majority of the respondents 133 (69.43%) did not practice TSE. Of those 59 (30.7%) that practiced, only 20 (33.9%) respondents carried it out monthly as recommended. Chi-square analysis revealed a significant relationship between their knowledge of TSE and TSE practices ($p = 0.006$).
Conclusion: this suggests that information should be provided to the public especially; young men through television, billboard, and other media on the need for regular TSE and TSE should be integrated into the secondary school curriculum.
Keywords: Testicular Self-Examination, Testicular Cancer, Nurses, Undergraduate, Enugu

MEDICAL NEGLIGENCE AND ITS PERCEIVED IMPLICATIONS AMONG NURSES WORKING IN UNIVERSITY OF NIGERIA TEACHING HOSPITAL, ENUGU.

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Introduction: Medical negligence has become an issue of worldwide concern due to its global prevalence and implications This paper, therefore, assessed the knowledge of medical negligence and its perceived implications among nurses working at the University of Nigeria Teaching Hospital (UNTH) Enugu.
Material and methods: This was a descriptive cross-sectional design. Two hundred and forty-eight (248) nurses were enrolled into the study through a convenience sampling technique. A researcher-developed and validated questionnaire was used to collect information on the nurses' knowledge of medical negligence and its perceived implications. Cohen Kappa's reliability index of the questionnaire was 0.93. Descriptive and inferential statistics were used to analyse the data with the aid of SPSS version 23.
Results: Results showed that the respondents had a good knowledge of Medical negligence 210(86.1%) and 197(80.7%) had good knowledge of the legal implications of negligence. Further findings revealed an overall positive attitude (2.87±0.62) towards the legal implications of negligence 175(71.7%), the major perceived forms of negligence among nurses include disregarding patients' call for assistance (59.8%) and patients under care developing bedsores (55.3%). It was discovered that the four most contributing factors to negligence were the shortage of nurses (3.38±0.78), lack of communication between physicians and nurses (3.34±0.80), lack of supportive environment (3.38±0.79) and inadequate equipment for work (3.32±0.79). There was a significant relationship between knowledge of medical negligence and perceived negligence among nurses ($p < .001$) and between knowledge of medical negligence and its legal implications ($p = .005$).
Conclusion: The studied nurses had a good level of knowledge of medical negligence and a positive attitude towards its legal implications, therefore, the government agencies and hospital administration should continually employ more nurses in understaffed units and institute frequent education on medical jurisprudence for the knowledge to be translated into practice.
Key words: Medical negligence, perceived implications, nurses, legal implications of negligence medical jurisprudence

SESSION 3

EFFECTS OF A STRUCTURED HEALTH EDUCATION ON PREVENTION OF HIV RISKY BEHAVIOURS AMONG - ADOLESCENTS IN A LOW AND MIDDLE-INCOME COUNTRY – A PRAGMATIC RANDOMIZED CONTROLLED TRIAL

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Introduction: Risky behaviours are those actions when indulged in exposing adolescents to negative health consequences like HIV/AIDS, poor health, sexually transmitted diseases and other health issues. The study assessed the effectiveness of structured health education on the prevention of HIV/AIDS risky behaviours among adolescents in secondary school.
Materials and Methods: A pretest-post-test-control group randomized controlled trial where a sample of 647 adolescents was drawn from the population of 2,890 secondary school students and was block-randomized into the intervention (n=400) and control (n=224) groups. Ethical approval was obtained from the Health Research and Ethical Committee of the University of Nigeria Teaching Hospital (UNTH), Ituku Ozalla, Data were collected using a content-validated (CVI = 4.2/5) and reliable (k =0.791) self-developed structured questionnaire. Data were analysed using descriptive statistics and with inferential statistics of independent and paired t-tests at α=0.05.
Result: Pre-intervention risky behaviours in both groups were below average though lower in the intervention than in the control group. Pre-intervention risky behaviour was significantly higher among males than females in the rural school and both schools together ($p < .001$). Health education had a significant effect on risky behaviour with the intervention group being associated with lesser risky behaviour than the control group. No post-intervention significant difference in the risky behaviour of males and females in the rural and urban schools and both together, ($p = .609$), ($p = .179$).
Conclusion: Post-intervention reduced risky behaviours in the intervention than in control groups. HIV/AIDS health education should be part of schools' curriculum, guidance and counsellor teachers should be trained as HIV counsellors.
Keywords: Health Education, HIV/AIDS, prevention of risky behaviours, Secondary school, Adolescents.

PSYCHOLOGICAL IMPACT OF COVID-19 AND ASSOCIATED FACTORS AMONG HEALTH CARE WORKERS IN SELECTED TERTIARY HOSPITALS, SOUTH EAST NIGERIA.

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Introduction: There is a wide consensus that the outbreak of an infectious disease such as COVID-19, is often linked with adverse psychological outcomes amongst health care personnel. However, little is known about the psychological impact of the COVID-19 pandemic on health care workers in a developing country, Nigeria. Hence the need for the present study.
Materials and Methods: A cross-sectional online survey was conducted among 201 health care workers in selected tertiary hospitals, South East Nigeria using a multi-stage sampling technique. Data was obtained using adopted standardized and validated instruments which include patient health questionnaire (PHQ-9), generalized anxiety disorder scale (GAD-7), insomnia severity index (ISI) and a researcher designed instrument to assess associated factors and coping measures. The draft survey instrument was given to four experts to assess the content validity of the tool in terms of its relevance and representativeness. Analysis was performed on the rating provided by the experts and calculated using the item-content validity index (I-CVI) which gave a score of 0.85. Frequencies and percentages were used to summarize the categorical variables. Inferential statistics such as chi-square were to examine associations at p value ≤ 0.05 tnacingis level.
Results: Overall, close to average had mild (40.4%, n=61) depressive symptoms, above half (64.2%, n=129) had normal anxiety scores and almost a quarter (21.4%, n=43) had sub-threshold insomnia. The main factors that contributed to psychological distress were the shortage of health care resources including personal protective equipment (72.6%, n=146), concerns about infecting family members 143(71.1%) and lack of proven therapies or a vaccine (62.7%, n=126). The major coping measures indicated by the respondents include, strict protective measures 182(90.5%), positive self-attitude (81.1%, n=163) and social isolation measures (73.6%, n=148). Certain task activities and coping resources were associated with depression, anxiety and insomnia.
Conclusion/Recommendation: Health care workers experience considerable psychological distress during outbreaks such as COVID 19 and the possible predicting factors were related to the pandemic. Hence the reason for adopting pragmatic coping resources such as strict adherence to guidelines and positive self-disposition in managing the distress. Providing psychological interventions and workplace mental health services that will promote the resilience of health workers will be of immense t enebboth in the present and future pandemic situations.
Keywords: Adaptive Measures, COVID-19, Health workers, Impact, Pandemic, Psychological distress

PERCEIVED FACTORS AFFECTING NON-STAY OF HEALTHCARE PROFESSIONALS IN RURAL AREAS OF ENUGU STATE, SOUTHEAST NIGERIA

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Introduction: To identify personal, institutional and community factors contributing to non-stay of healthcare professionals in rural areas of Enugu state.
Materials and methods: This is a descriptive cross-sectional study carried out in July 2016 on healthcare professionals working in rural areas under Enugu State Ministry of Health, Southeast, Nigeria. Data were collected from two hundred and thirty-six healthcare professionals using a validated structured questionnaire developed by the researchers. The test-retest method was used to calculate the reliability and the Pearson product moment correlation result of 0.87 was obtained which was deemed appropriate. Influence of personal, institutional and community factors on non-stay of workers in rural areas were examined. Data were analysed using descriptive and inferential statistics.
Results: The mean age was 33.84 (8.23) years. Majority of the respondents were females 167(70.8%). More than half of the study participants were single 128(54.2% while 108 (48.8%) were married. Nurses and midwives formed the bulk of the health professionals 186(68.8%) followed distantly by medical doctors 31(13.2%). Findings revealed that personal and institutional factors such as family preference to live in urban area (P=0.0001), poor remuneration (P=0.0001), inadequate staff recognition and reward (P=0.0001) and non-existence of policies to enhance career advancement (P=0.0001) were very strong significant influences contributing to decisions to live and work in rural areas.
Conclusion: Identifying drivers of non-stay in rural areas provide evidence for designing and implementing effective financial and non-financial incentives. There is need to address the perceived institutional and personal factors identified in this study to make rural posting attractive as well as ensure improved health care services to rural communities if the sustainable development goals are to be achieved.
Key words: Rural areas, Non-stay, Healthcare professionals, Perceived factors

EVALUATION OF THE HORMETIC PROPERTY OF RADIATION USING ESCHERICHIA COLI AS TEXT MEDIUM.

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Introduction: The linear No-threshold (LNT) hypothesis which states that deleterious effect of ionizing radiation increases with increase in dose and it has no threshold from which the effect occur. Another school of thought proposes that radiation has hormetic effect at low dose. This is the burden of the present study.
Materials and Methods: The study was carried out in University of Nigeria Teaching Hospital Ituku Ozalla Enugu. The linear Accelerator Elekta Precise MC 2005 model with Beam Energy of 6 MV, was used for the irradiation of the bacteria. Original Culture Sample of Escherichia Coli was obtained from the laboratory. It was diluted and plated to give few well separated colonies. A stock culture was prepared of one of the colonies by inoculating it in an agar plate. Five experimental plates was sub cultured from the stock. Four of the plates were irradiated with 0.I Gy, 0.2 Gy, 2 Gy and 10 GY and the fifth plate served as the control. Each of the groups was irradiated three times at 24-hour interval. Thereafter the groups were allowed 4 days rest period after which they were irradiated for the fourth time. The survival fraction (SF) which is the measure of cell survival relative to the number of cells plated with correction for Plating Efficiency (PE) was determined for each group. The cell count was done using the haemocytometer. The resistance of the different cells was evaluated using graded doses of ciprofloxacin.
Results: The cells survival fraction (SF) at different doses of radiation show that there was proliferative activity of the irradiated cells. The survival fraction for groups A and B were 9.57 and 8.65 respectively and the cells were resistant to antibiotic treatment while the control group was not.
Conclusion: The study shows that there was proliferation of E. Coli cells after irradiation, as well as resistance to antibiotic treatment. This infers that irradiation of E. Coli cells impacts them with hormetic properties.
Keywords: hormesis, radiation dose, survival fraction, Escherichia coli, proliferate

CLINICAL EXPERIENCE OF RADIOGRAPHY STUDENTS AND THE NEED FOR VIRTUAL RADIOGRAPHY SIMULATIONIN THE COVID-19 ERA.

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Objective: To evaluate the clinical training experience of radiography students and their tutors and assess their attitude towards the use of virtual simulation as an adjunct to clinical postings.
Materials and Methods: A survey was conducted on 3rd year to 5th-year radiography students in five universities offering radiography as a five-year degree program and on radiographers involved in students training. Data was collected and displayed using tables and figures.
Results: A total of 276 students (169 males and 107 females) and 36 radiographers (24 males and 13 females responded. The students were exposed to a wide range of modalities but most of them (78.3%, n = 216) reported that they had issues with overcrowding and were not allowed to attend to patients (60.1%, n = 166). 55.8%, n = 154) classified themselves as "static observers" as against "passive" (20.7%, n = 57) and "active" (23.6%, n = 65) observers. They rated themselves "average" in clinical practice but were equally divided on their levels of satisfaction on their clinical experience, with 52.9% (n = 146) expressing dissatisfaction against the 47.1% (n = 130) that expressed satisfaction. Few of the radiographers who have used VR software before responded that they were open to newer and better methods of clinical training of students.
Conclusion: The learning environment for clinical procedures for the students are not conducive. The introduction and use of virtual simulation will be a welcome development as it will improve the clinical training of radiography students.
Keywords: clinical postings, virtual radiography, simulation training, covid-19, radiography

SESSION 4

PERCEPTION AND PREFERENCE OF OSCE AMONG NURSING STUDENTS IN A COVID-19 ERA: A CALL FOR MODIFICATION OF EVERY CLINICAL EXAMINATION

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Introduction: With the advent of COVID-19, the objective structured clinical examination (OSCE), as a form of test, has gained increasing interest among health professional disciplines especially nursing. Without exposure to the clinical health hazards, OSCE can truly measure the extent of clinical knowledge and skill acquired by every clinical student. This study assessed the perception and preference of OSCE amongst nursing students of University of Nigeria, Enugu Campus. Specifically, the study determined the respondents' views about OSCE pattern, OSCE content, their choice between OSCE and conventional procedure-only practical examination (CPPE), and their reason for the choice.
Material and Methods: A cross-sectional descriptive study design was utilized. A validated and reliable (with Cronbach Alpha of 0.82) self-structured questionnaire was used to collect data from a sample of 195 out of a population of 395. The data generated were analysed using descriptive statistics and presented in tables.
Results: Findings revealed that majority (63%; n = 121) of the 192 students were within the age bracket of 21-30 while most of them were females in their fourth year of study. The result also showed that positive views towards OSCE pattern (2.69±0.80) and content (2.52±0.66) were significant among them. Findings further showed that most (63%; n = 121) of the students prefer OSCE as their mode of practical examination. Their major reasons for the choice were that OSCE tests everybody on the same thing and it is less stressful, minimizes subjective chance of failing, and can truly ascertain the extent of clinical knowledge and skill acquired by students in a simulated clinical environment thereby freeing them from exam-related hospital-acquired infections.
Conclusion: Nursing students have positive perception towards the pattern and content of OSCE and prefer OSCE to the CPPE especially in a COVID-19 era. The authors recommend that every healthcare discipline should strive to adapt their staff and students to the use of OSCE and completely replace CPPE with OSCE to eliminate exam-related nosocomial infections.
Keywords: OSCE perception, OSCE preference, COVID-19, Clinical examination, Clinical education

BENEFIT INCIDENCE ANALYSIS OF OUTPATIENT AND INPATIENT SERVICES IN THE OBIO COTTAGE HOSPITAL COMMUNITY-BASED HEALTH INSURANCE IN THE NIGER DELTA, NIGERIA

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Introduction: Health insurance has been identified as a major tool for the global achievement of Universal Health Coverage (UHC). There are pieces of evidence from countries around the world that Community Based Health Insurance (CBHI) has benefited individuals in the informal sector and invariably given them access to UHC and covered from catastrophic health expenditure. CBHI as a form of sustainable corporate social responsibility of the Shell Petroleum Development Company, has led to putting in place a CBHI scheme for the residents accessing health care at the Obio Cottage Hospital in the Niger-Delta region of Nigeria. This study was therefore a benefit incidence analysis of the outpatient and inpatient services coverage of the Obio Cottage Hospital CBHI.
Material and Methods: The study utilized a cross-sectional study design and an exit interview to determine the benefit among respondents who received outpatient and inpatient care at Obio Cottage Hospital in Rivers State, Nigeria within the last one month for outpatient and within the last one year for inpatient care. An interviewer-administered pre-tested structured questionnaire was used for data collection. Content validity was conducted to determine the level of correlation between variables of interest. Reliability of the questionnaire was determined at Cronbach alpha value of 83.4%. Comparison of mean of continuous variables was measured using 2-sample t-test. The level of significance was measured at a p-value < 0.05. Respondents were divided into quintile using principal component analysis that generated a concentration index for a better understanding of how much people have proportionally benefited from the health insurance.
Results: Most of the respondents (98.9%, n=801) were married and registered (95.6%, n =801) with the Obio Cottage CBHI. Outpatient medical costs in the current visit for enrollees were N2935.5, N2547.7 and 2991.4 for urban, semi-urban and combined respondents respectively. Medical costs for inpatient enrollees were N12412.1, N4166.7 and N11381.5 for urban, semi-urban and combined respectively. Outpatient non-enrollees' medical costs were N5395.5, N4862.5 and N5253.3 respectively while inpatient non-enrollees' medical costs were N16362.5, N31100.0 and N19310.0. respectively. The net benefit for using Obio Cottage CBHI was N248776.0 and N190284.0 for outpatient and inpatient services respectively. The concentration index shows that the poor utilized the Cottage Hospital more than the rich and also made fewer financial commitments than the rich.
Conclusion: Obio Cottage CBHI is pro-poor and requires a policy that will encourage scaling it up to other parts of the State.
Key words: Community-based, health, insurance, Niger-Delta, Nigeria

PREVALENCE AND RISK FACTORS OF CERVICAL DYSPLASIA AMONG HUMAN IMMUNODEFICIENCY VIRUS SERO-POSITIVE FEMALES ON HIGHLY ACTIVE ANTIRETROVIRAL THERAPY IN ENUGU, NIGERIA

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Introduction: Evaluation of prevalence and risk factors of cervical dysplasia among Human ycneic edonummIVirus sero-positive (HIV+) females on Highly Active Antiretroviral Therapy (HAART) attending HIV clinic at University of Nigeria Teaching Hospital Ituku/Ozalla, Enugu, Nigeria.
Materials and Methods: Structured questionnaire was used to obtain socio-demographic and risk factors data. Risk factors studied were age, HIV status, marital status, marital setting, education, occupation, smoking, gravidity, parity, number of sex partners, coitarche, hormone contraceptives, History of sexually transmitted diseases. Risk factors were analysed using Odds Ratios at 95% ecned noCInterval, OR [95% CI]. Cervical specimens were collected from 105 HIV+ females on treatment and 104 HIV sero-negative (HIV-) female controls. Pap smears were made from all the participants and placed in 95% ethyl alcohol for conventional Pap staining and thin smears for Immunocytochemistry. Serum was used for HIV screening. Immunocytochemistry using anti-P16INK4A antibody was done on Pap smears that were positive for cervical dysplasia. Slides were reported by Histopathologist/Cytopathologist. Results were analysed using SPSS 20 version at 0.05 tnac ingis level.
Results: Pap staining showed prevalence of cervical dysplasia among HIV+ on HAART, 19.05%, (n = 20) whereas HIV- was 6.73%, (n = 7), p = 0.008. Highly Squamous Intraepithelial Lesion, 0.95%, (n = 1) was positive for anti-P16INK4A antibody. OR [95% CI] of the risk factors of cervical dysplasia revealed; HIV+, 3.26 (1.31-8.09), education < secondary school, 3.23(1.25-8.37), polygamy, 3.23(1.25-8.37), married, 2.08(0.43-2.31), parity > 4, 1.54(0.66-3.61), Sexually Transmitted Diseases, 2.49(1.06-5.80). Uptake of Cervical Cancer Screening was low in both studied groups, 6.7% for HIV+ on HAART and 13.5% for HIV- females, P = 0.102.
Conclusion: HAART had cyto-protective effect against cervical dysplasia in HIV+ females, due to reduced progression of Atypical Squamous Cell of Undetermined ecnac ingiS(ASCUS). Progression from normal to ASCUS increased, which could be due to latency or/ and prolonged persistent high risk Human Papillomavirus and HIV infections, of the most sexually active age group before diagnosed of HIV.
Keywords: prevalence, risk factors, cervical dysplasia, HIV, HAART

EFFECTS OF ABDOMINAL GIRDLE BELT ON PULMONARY FUNCTIONVARIABLES OF POSTPARTUM WOMEN IN ENUGU, NIGERIA: A QUASI-EXPERIMENTAL STUDY

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Introduction: Girdle belt is commonly worn by postpartum women with the aim of managing pregnancy-related complications, including abdominal obesity, diastasis recti abdominis and low back pain. Presently, there are concerns that using these belts may be linked with some complications including possible reductions in lung volume. Therefore, this study was aimed at investigating the effects of wearing abdominal girdle belt on pulmonary function variables of postpartum women.
Materials and Methods: This quasi-experiment study comprised thirty-two consenting postpartum women (18 -35years), recruited from a postnatal clinic in Enugu, Nigeria. They were grouped conveniently (or by their preference) into the girdle belt group (n =19) and control group (n = 13). Participants in the girdle belt group wore girdle belts consistently for 8 weeks at an average of 6 hours daily, while those in the control group continued with their usual care interventions. The lung functions (forced vital capacity- FVC; force expiratory volume in first second- FEV1, Percentage predicted of forced expiratory volume in one second- FEV1%, Peak expiratory flow- PEF, force expiratory flow at 25- FEF25, forced expiratory flow at 75- FEF75, Force mid expiratory flow- FEF2575) and oxygen saturation of the participants were measured using a spirometer (Nature spirit SP-10, USA) and pulse oximeter (Omron CMS5ON), respectively. Data obtained were analysed using descriptive and inferential statistics.
Results: The mean age and abdominal girths of the participants were 29.9±4.09 years and 94.75±10.34cm, respectively. Both groups of participants were comparable at baseline for all the study variables assessed (p>0.05). Similarly, there was no significant difference in SPO2 (p = 0.808) and pulmonary function variables of FVC, FEV1, FEV1%, FEF25, FEF25, and FEF2575 between the girdle belt and control groups (p>0.05). However, the PEF was found to be significantly lower among participants in the girdle belt group compared to those in the control (p = 0.012).
Conclusion: It was concluded that wearing girdle belts has no effect on the pulmonary functions of postpartum women. Hence, in the meantime, postpartum women may not be discouraged from wearing girdle belts.
Keywords: postpartum, girdle belts, pulmonary functions, oxygen saturation

EFFECTS OF FOOTWEAR TYPES ON BALANCE AND RISK OF FALLS AMONG PREGNANT WOMEN: A CROSS-SECTIONAL STUDY

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Introduction: Falls are one of the most common causes of trauma among pregnant women. Footwears are part of the major environmental risk factors of falls, yet there is no evidence to ascertain how different footwear types affect balance and risk of falls in pregnant women. Our study assessed the effects of footwear types on balance and risk of falls among apparently healthy pregnant women.
Materials and Methods: We simulated static balance, measured by the maximum width base of support (mwBOS) and risk of falls as determined by the three-meter backward test, using six different types of footwear. The participants were asked to match in place while standing, with their eyes open and arms hanging on both sides. On an immediate instruction to stop matching, she takes a comfortable stance and the width of her base support is taken (distance between the medial borders of both feet) using an antropometric calipers. Data were analyzed using descriptive statistics and one-way analysis of variance.
Results: There was a significant variation in balance with types of footwear ($p < 0.001$), with the female variant flip flop slippers exerting the most unfavourable effects on balance (mwBOS of 32.3±4.4cm). The work shoes and ankle strap sandals provided the greatest degree of balance, with mean mwBOS of 30.8±4.3 and 31.4±3.9, respectively. Surprisingly, there was no significant variation in the risk of falls with types of footwear ($p< 0.052$).
Conclusion: Types of footwear affect static balance amongst pregnant women, however, others factors other than balance contributes to falling risk.
Keywords: pregnancy; footwear type; balance; fall risk; Nigeria

CHALLENGES IN THE MANAGEMENT OF ORAL AND MAXILLOFACIAL SARCOMAS: A REVIEW OF 54 CASES.

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Introduction: Sarcomas in the head and neck region are rare, the management can be challenging due to difficulty in making diagnosis, late presentation among others.
Materials and Methods: A combined cohort study of all oral and maxillofacial sarcomas seen in the University of Nigeria Teaching Hospital Enugu from 2010 -2020.
Result: Fifty-four cases of sarcomas of the oral and maxillofacial region were reviewed based on histopathologic subtypes, clinical presentation, treatment options, while factors considered as challenges were noted. Thirty (55.6%) occurred in males while 24 (44.4%) in females in a ratio of 1.3:1. The mean age of the patients was 35.1±18.2 years (range 6 months to 72 years). The duration of the tumours on the first presentation was between 1to 60 months (mean 9.8±10.2 s). Seventeen histopathologic subtypes were found with osteosarcoma 14 (26%) as the most predominant. Surgical intervention alone or in combination with other modalities was used in 41 (76%). Recurrence of the lesion was recorded in 27 (66%) patients, (23 (85.2%) local and 4 (14.8%) regional). Only 4 (9.8%) patients continued follow-up visit after the first year.
Conclusion: Oral and maxillofacial sarcomas are rare, management of this condition in resource scarce centres is fraught with a lot of challenges.
Keywords: sarcoma, maxillofacial, recurrence, late presentation

KIDNEY FUNCTIONS OF MALE ATHLETES IN ENUGU METROPOLIS, ENUGU STATE, NIGERIA.

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Introduction: In sports medicine, research on kidney functions in athletes is less common than in other areas of study such as the respiratory, circulatory, and neuromuscular systems. This study was therefore to evaluate the kidney functions of trained athletes in Enugu metropolis, Enugu State, Nigeria.
Materials and Methods: Age-matched eighty-four (84) apparently healthy male individuals: 43 athletes (cases), and 41 non athletes (controls), aged 18-35 years participated in the study between July and August 2021. Questionnaire was used to capture vital information including variables, anthropometric measurements were taken, and blood samples were collected and analysed for sodium, potassium, bicarbonate, chloride, urea, and creatinine concentrations, and glomerular filtration rate (GFR) estimated. Data of case and control subjects were compared using student's test, and Analysis of Variance, and $P < 0.05$ considered statistically significant.
Results: There were significant statistical differences ($P<0.05$) between the potassium, bicarbonate, creatinine, chloride and estimated GFR (eGFR) of the athletes when compared with the controls, but no significant statistical difference ($P>0.05$) between the sodium, and urea levels of the athletes and the controls. There was also no statistically significant difference ($P>0.05$) in the sodium, potassium, bicarbonate, chloride, urea, creatinine, and eGFR in the athletes in relation to the type of exercise, and duration of exercise.
Conclusion: Findings from this study suggest that there are slight differences in the kidney functions of athletes and non-athletes. Increasing the sample size, extending the study to the female gender, and assaying other more sensitive markers of kidney functions like cystatin C are advocated.
Keywords: Kidney. Kidney functions. Athletes. Non athletes. Glomerular filtration Rate. Enugu metropolis.

PERCEPTION AND UPTAKE OF COVID-19 VACCINE AMONG NURSING STUDENTS OF UNIVERSITY OF NIGERIA, ENUGU CAMPUS

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Introduction: Undergraduate nursing students are at high risk of exposure to COVID-19 infection during their clinical posting. It is pertinent to achieve high COVID-19 vaccination coverage rates in this group of people. However, there seems to be a low uptake of the COVID-19 vaccine among this group. This study aimed to assess the perception, uptake level, and factors influencing the uptake of the covid-19 vaccine among nursing students of the University of Nigeria Enugu Campus.
Materials and Methods: This cross-sectional study surveyed a total of 273 undergraduate nursing students at the university. A researcher-designed validated questionnaire was used for data collection. The instrument was pretested with 27 students of the department of medical rehabilitation of the school. The data collected were subjected to reliability analysis and it gave a Cronbach's alpha (∞) coefficient value of 0.801 which was considered adequate. The instrument had 4 sections, the first section elicited the socio-demographic characteristics of the respondents, the second section assessed the perception of the COID-19 vaccine, the third section assessed the uptake level of the vaccine, and the fourth section assessed the factors influencing uptake of the COVID-19 vaccine. The definition of perception is the view of the nursing student regarding the CODIV-19 vaccine and it was evaluated using 4 points Likert scale. The score assigned to the responses were: Strongly disagreed =1, Disagreed=2, agreed=3, and strongly agreed=4. The mean responses were computed and a value ≥ 2.5 was considered a good perception. Data were analysed using descriptive statistics and presented in tables.
Results: There was a poor perception 174(64.6%) and a low 51(18.7%) uptake level of the COVID-19 vaccine among undergraduate nursing students of UNEC. Inadequate educational information about covid-19 vaccine 204 (74.7%), belief that the vaccine is ineffective 194 (71.1%), distance to the vaccination centres 167(61.5%), and religious belief 164 (60.4%) were the major factors influencing their uptake of the COVID-19 vaccine.
Conclusion: Perception and uptake of the COVID-19 vaccine were poor among undergraduate nursing students in this study and this may have negative consequences on the general well begin of the nursing students.
Keywords: Covid-19 vaccine, Nursing students, Uptake level, Perception, Factors influencing uptake

HEALTH WORKERS' KNOWLEDGE AND PRACTICE OF STANDARD PRECAUTION IN SELECTED HEALTH CENTERS IN ENUGU SOUTH LOCAL GOVERNMENT AREA, ENUGU STATE

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Introduction: Health workers are at risk of needle stick injuries and blood-borne infections as they perform their clinical, diagnostic and therapeutic procedures in the health settings. Knowledge and practice of Standard Precautions is understudied in primary health centres in Enugu South. The study assessed the level of knowledge and practice of Standard Precautions among health workers in selected Pprimary health centres in Enugu South and association between health facility location and the practice of Standard Precautions.
Materials and Methods: Two out of five Primary health centres in Enugu South were randomly selected for a descriptive cross-sectional study conducted among purposively selected forty-two (42) health workers. Instrument for data collection was pre tested questionnaire with Cronbach's Alpha reliability coefficient of 0.764 and an Observation checklist. Data analysis was done with IBM SPSS, version 23 (2015 edition) using descriptive statistics of proportions and percentages while Chi square was used to test for association between health facility location and the practice of Standard Precautions at $p<0.05$. Mean score for appropriate practice is ≥ 2.5
Results: Findings showed that more than half n=29(70.7%) had good knowledge; 10(24.4%) had moderate knowledge while 2(4.9%) had poor knowledge of standard precaution. There was appropriate practice of standard precaution with an overall mean of (3.10±0.29). There was a statistically significant association between the health centre location and the practice of standard precautions ($df = 2, p < 0.05$).
Conclusions: Though there was good knowledge of standard precautions in this study, but there was still knowledge-practice gap. It is therefore imperative to organize continuing education programmes for the workers at the primary health centers to enhance efficient practice especially during this COVID 19 era.
Key words: Enugu, health centres, health workers, knowledge, practice, standard precaution.

POOR FACILITIES IN A NIGERIAN CORRECTIONAL CENTER: IMPLICATIONS IN WORKPLACE HEALTH AND SAFETY IN COVID-19 ERA

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Introduction: Inmates and staff members of correctional centres in Nigeria are exposed to poor health and safety challenges arising from poor workplace environmental condition such as overcrowding, poor ventilation and environmental pollution. We report the case of poor indoor air quality and microbial contamination of fomites in Enugu correctional centre of the Nigerian Correctional Services.
Materils and Methods: Indoor air quality was assessed by determining the concentration of some pollutants (formaldehyde, total volatile organic compounds and particulate matters) by the direct reading engineering method (DREM), using handheld air quality monitor(EGVOC-180, EG AIR, Garden Grove, California, United States, 2020 product), information on respiratory diseases/symptoms among the inmates were obtained using interviewer-administered questionnaire, validated with Cronbach α score of 0.8, building cell features were assessed with numerical number of windows and microbial particles on the fomite were isolated by swab-rinse techniques, following standard methods.
Result: The concentrations of the pollutants were: formaldehyde (0.20±0.07 mg/m3); total volatile organic compounds (0.79±0.37 mg/m3) and particulate matters [PM1(71.03±41.09 µg/m3), PM2.5 (89.00±49.66 µg/m3) and PM10(107.40±61.86 µg/m3)].The fomites recorded microbial organisms with bacterial isolates dominated by Escherichia coli 40 (47.06%), followed by Bacillus subtilis 12 (14.12%) and the fungi isolates dominated by Rhizopus spp 46(48.42%), followed by Trichophyton mentagrophytes var interdigitale (Human strain). The fomites of male and female cells recorded the highest percentage of the E. coli, 24 (60.00%) followed by seats, tables and walls, at the visitors' room 5(12.50%), clinic beds 3(7.50%). The study did not investigate viral contamination. Inmates in Cells with 4 windows reported highest respiratory diseases/symptoms: cough (62.5%, N= 15 out of 24), wheeze (37.5%, N = 9 out of 24), chest pain (41.7%, N = 10 out of 24), pneumonia (25.0%, N = 6 out of 24) and bronchitis (33.3%, N = 8 out of 24).
Conclusion: The prison cells recorded poor indoor air quality and the high prevalence of microbial pathogens on the fomites presupposed environmental pollution. Since air-borne respiratory droplets and fomites are implicated in the spread of infectious diseases, including COVID-19, inmates and the staff members are exposed to air-borne infectious diseases.
Key Words: Particulate matters, volatile organic compounds, formaldehyde, respiratory diseases, fomites

Poster Presentation

POINT PREVALENCE SURVEY OF ANTIMICROBIAL PRESCRIPTION AND CONSUMPTION IN A NIGERIAN TERTIARY HOSPITAL: GATEWAY TO ANTIMICROBIAL STEWARDSHIP PROGRAMME

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Introduction: Antimicrobial resistance is a global issue fueled by the misuse and overuse of antimicrobials. In our setting, it is complicated by the unregulated access to medicines. Antimicrobial stewardship is a proven strategy to combat resistance however information is needed to identify the gaps requiring interventions. The study was done with the aim to assess the baseline antimicrobial prescribing and consumption practices in University of Nigeria Teaching Hospital, Ituku-Ozalla.
Materials and Methods: This cross-sectional study was carried out in November, 2018. The tool used for the data collection was a questionnaire developed at the University of Antwerp, Belgium in 2015. The survey of the whole wards in the hospital was done in three days. The inclusion criteria are all patients admitted in the ward, and receiving at least one antimicrobial agent at 8am on the day of the survey.
Results: Out of 360 patients admitted, 193 (53.6%) were receiving at least one antimicrobial agent on the day of the survey. The highest rate of antimicrobial consumption was observed in the adult intensive care unit 100% (n=11). Community acquired infections were the leading indication for therapeutic antibiotic prescription. Majority 92.3% (n=356) of prescribed antimicrobials were administered as empirical therapy. There was low rate of conversion to targeted treatment and poor utilization of the microbiology laboratory. The most commonly prescribed class of antibiotics were the cephalosporins (third generation mainly). Antimicrobials used for surgical prophylaxis were usually given for more than 24 hours. Reason for antimicrobial use and stop/review dates were documented in 78.7% (n=152) and 86.9% (n=168) of cases respectively, however, there was non-existence of guideline compliance and biomarker use.
Conclusion: The study revealed high rate of empirical therapy, poor microbiology laboratory usage, prolonged duration of surgical prophylaxis, paucity of guideline compliance and biomarker use. Antimicrobial stewardship program needs to urgently be implicated for better patient management.

Virtual Presentations

SESSION 5

CURCUMA LONGA AQUEOUS EXTRACT PREVENTS MYOCARDIAL INJURY IN HYPERCHOLESTEROLAEMIC ALBINO RAT

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Introduction: Hypercholesterolaemic rats have been reported to develop systemic organ complications, including heart injury. Thus investigation into the prevention and treatment of abnormal cholesterol levels or heart injury complications, with a simple and common medicinal plant like Curcuma longa, is an important step in maintaining optimum health. Coronary atherosclerosis is known to be associated with cardiomyopathy in patients worldwide. Presently there is a high prevalence of cardiovascular risk across the globe and the cost of heart disease treatment is very high. Therefore, prevention of heart diseases has become the better option. The aim of the present study was to evaluate the cardioprotective effects of Curcuma longa aqueous extract (AECL) in Hypercholesterolaemic rats.
Materials and Methods: 40 rats were randomly divided into four groups with 10 rats per group. Rats from the group I (normal control) received no treatment. High cholesterol diet (2 g/kg, oral) and high dose of anti-thyroid hormone drug carbimazole (60 mg/kg, oral) were administered once daily for 8 weeks to induce hypercholesterolaemia in rats of II-IV groups. Group II served as toxic (negative) control and group III (positive control) was treated with a standard lipid-lowering drug atorvastatin (20 mg/kg, oral). Group IV received AECL (200 mg/kg) once daily for 8 weeks. For lipid profile analysis the total cholesterol, high density lipoprotein cholesterol, triglycerides levels were estimated and creatine kinase, lactate dehydrogenase and aspartate transaminase activities as cardiac biomarkers were assayed in blood serum using standard methods.
Results: It was shown that AECL significantly reduced hyperlipidaemia, stabilized cardiac biochemical markers and protected the cardiac muscle fibres from injury.
Conclusion: The results of the present study suggest that the Curcuma longa extract has cardioprotective potential, and can be used to prevent hypercholesterolaemia-induced myocardial injury.
Keywords: carbimazole, hypercholesterolaemia, cardiomyopathy, cardioprotective, Curcuma longa.

ALLIUM SATIVUM JUICE EXTRACT AND DIARRHOEA: AN EXPERIMENTAL EVIDENCE FOR THE PRESERVATION OF INTESTINAL TISSUE INTEGRITY

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Introduction: Diarrhoea is an early sign and relatively common symptom in patients infected with SARS-CoV-2. The search for new antidiarrheal drugs from natural sources is considered pertinent. *Allium sativum* (Garlic) is traditionally used for the treatment of diarrhoea but there is paucity of scientific literature to substantiate or refute this claim. The present study, therefore, evaluated the effects of fresh juice extract of Allium sativum cloves on experimentally-induced diarrhoea in albino rats.
Materials and Methods: Two doses (5ml and 10ml/kg body weight) of *Allium sativum* juice extract (ASJE) were evaluated for antidiarrheal activity in rats with lactose monohydrate and castor oil-induced diarrhoea. Gastrointestinal motility test was also conducted. The caeca of all rats were excised for necropsy and histological studies. The activity of *ASJE* was compared to loperamide (5mg/kg) and atropine sulphate (3mg/kg) which were used as standard reference drugs.
Results: *ASJE* showed a marked antidiarrheal effect by inhibiting 69.23% and 76.92% of diarrhoea at doses of 5 and 10ml/kg, respectively, whereas an inhibition of 100% was obtained for loperamide. GI motility test revealed significantly reduced intestinal transit distance of 7.43% and 1.91% for 5 and 10ml/kg ASJE respectively ($p<0.05$), while treatment with atropine sulphate revealed no difference (44.28%) compared to the diarrheal control (59.38%). Gross and microscopical findings revealed that caecum distention, goblet cell hyperplasia and inflammatory cellular infiltration were markedly prevented by ASJE treatment, and a better preservation of the intestinal tissue integrity was noted.
Conclusion: These results indicate that fresh juice extract of *Allium sativum* cloves possesses significant antidiarrheal activity. Findings of this study may assist in the development of new drugs for the management of SARS-CoV-2-associated diarrhoea.
Keywords: Diarrhoea, *Allium sativum*, Intestine, Histology

A CROSS SECTIONAL REGIONAL STUDY LOOKING AT THE FACTORS RESPONSIBLE FOR THE LOW COVID 19 VACCINATION RATE IN THE SOUTH-EASTERN NIGERIA.

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Introduction: COVID 19 vaccination has been rolled out in Nigeria, with low uptake often attributed to shortage of the vaccine. We set out to find out the current trend so far and to the best of our knowledge, our study is the first in the region looking at the real situation on ground.
Material and Methods: This is a descriptive cross-sectional study in the 5 south-eastern states in Nigeria. A structured questionnaire was given to the members of the public after validation by a carefully selected research team using a sample of 20 answered questionnaires. Data was analysed in SPSS. No ethical approval was sought as personal identifiers were not included.
Results: There were 1283 respondents in this study. Of this number, only 105(8.2%) have had at least one of the vaccine doses. Stated reasons for not having been vaccinated were side effects (n=370, 31.5%), access to a vaccination centre (n= 239, 20.4%) and belief in one's own immunity 186 (15.5). Having a health-related degree (p value 0.021), non-governmental employees (p value 0.003), private sector employees (p value 0.029) and public sector employees (p value 0.009) were associated with relatively higher vaccination rates.
Conclusion: Vaccination rate in Nigeria is still very low. Fear of side effect which is enhanced by mystical thinking is the leading factor for low turnout not just shortages.
Key Words: COVID 19 Virus, COVID 19 Vaccine, Vaccine Hesitancy.

ANTIMICROBIAL ACTIVITIES OF *CANNABIS SATIVA* AGAINST METHICILLIN RESISTANT *STAPHYLOCOCCUS AUREUS (MRSA).*

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Introduction: Cannabis sativa is a herbaceous plant that has been in used for many decades for medicinal and recreational purposes. The use of Cannabis has being restricted due to its psychoactive and physiological effects, but its medicinal use still made it relevant. One of the constituents of *Cannabis sativa* is Cannabinoids (CBD) which has great antimicrobial activity. Methicillin resistant *Staphylococcus aureus* (MRSA) remains a life threatening pathogens that resist a wide range of antibiotics, remains viable and continues to colonize the lungs causing Staphylococcal related lower respiratory tract infection (LRTIs). LRTIs is an emerging and life-threatening disease of both adults and children and it is mostly caused by MRSA. This work is aimed at accessing the antimicrobial activity of *Cannabis sativa* against MRSA.
Materils and Methods: A structured questionnaire consisting of the demographic characteristics, length of time of lung infection, antibiotic usage, were administered to 152 participants, comprising of 80 males and 72 females who have not being hospitalized for the past six months. Sputum samples were collected and cultured unto Mannitol Salt agar. The *Staphylococcus aureus* isolates were sub-cultured unto Chromagar MRSA for MRSA .noitac itnediThe isolates were subjected to antibiotic susceptibility testing, using disc diffusion method.
Result: The MRSA were highly resistant to Ampiclox (96.1%), Amoxicillin (92.3%), Chloramphenicol (80.7%), Erythromycin and nicaxo roN(76.9%) Streptomycin (69.2%), nicaxo oveL(65.4%), while it was less resistant to Rifampicin (34.6%) and least resistant to Cannabinoids (15.4%)
Conclusion: This study showed that Cannabinoids were the most sensitive drug needed to treat MRSA implicated in LRTIs.
Keyword: *Cannabis sativa*, MRSA, Cannabinoids, LRTIs, Antimicrobial.

ANTIFUNGAL SUSCEPTIBILITY PROFILE OF DIOSCOREA BULBIFERA AND ARTOCARPUS HETEROPHYLLUS ON FUNGAL ISOLATES

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Introduction: Increasing multi-drug resistance of pathogens and the negative consequences of anti-fungal usage has given rise to the yearning need for alternative remedies from nature. Medicinal plants have long been used in traditional medicine globally for the treatment of several diseases in developing countries. Plants however, possess the ability to synthesize a wide range of chemical compounds characterized with essential biological functions and protection against harmful invading organisms. This study aimed at evaluating the anti-fungal susceptibility el orpof the combined extracts of *Dioscorea bulbifera and Artocarpus heterophyllus against fungal isolates.*
Materilas and Methods: Methanol and aqueous extracts of *Dioscorea bulbifera* bark and tuber and *Artocarpus heterophyllus* stem and leaves were assessed for their anti-fungal activities against 6 fungal isolates using pour plate agar block method. The activities of some conventional anti-fungal drugs were also examined. The powdered plant parts were extracted using maceration method. The minimum inhibitory concentration (MIC) of the combined extract was carried out using de idombroth dilution method
Results: The phytochemical analysis of plant extracts revealed the presence of alkaloid, saponin, tannin, ,dionova glycoside, phenol and terpenoid. The different extracts exhibited varying degrees of anti-fungal activities. The cold-water extract of the stem of *A. heterophyllus* and the cold-water extract of the bark of *D. bulbifera* had the highest anti-fungal activities, while the least was hot water extract of *A. heterophyllus* stem and methanol extract of D. bulbifera tuber. The Mucor species and Aspergillus niger recorded the highest susceptibility to the combined extracts with the inhibition zone diameter of 40mm each, while the Penicillium species recorded the lowest (10mm). There was no tnac ingisdifference ($p>0.05$) in the activities of the methanol and aqueous extracts of *D. bulbifera and A. heterophyllus*. The MICs results demr nocthe anti-fungal activities of both plant extracts
Conclusion: The combined extracts possess potential source of anti-fungal properties for the treatment of opportunistic mycoses, revealed a synergistic effect and broad-spectrum activities hence can be used for formulation of potent anti-fungal drugs to combat Covid-19 complications due to microbial pathogens.
Keywords: Medicinal plants, extracts, infections, antifungal, multi-drug resistance

PERCEPTION AND PRACTICE OF FEMALE GENITAL MUTILATION AMONG RURAL WOMEN IN ENUGU, NIGERIA.

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Introduction: Female genital mutilation is a public health problem that was recognized internationally as a violation of the human rights of girls and women in the year2010, constituting an extreme form of gender discrimination with documented health consequences. Despite the campaign against this harmful practice, it still flourishes in some states in Nigeria. The aim of the study was to determine the perception, and practice of FGM among rural women in the communities Enugu.
Method: A descriptive cross-sectional survey design was used. A sample size of 162 females was drawn from the total population of 280 married women in Uzo – Uwani Enugu using a self-structured validated questionnaire and convenient sampling techniques. Data analyse was descriptive and inferential statistics.
Result: All the women were aware of the practice of FGM, the majority 94 (58.1%) of the women perceived FGM to be good and their reasons were anchored to preventing promiscuity (97.2%), as part of the culture (94.7%) and that it preserves virginity (91.5%). Half of the women (51.2%) were circumcised, still want FGM to continue and still practice and encourage others to do so. A significant relationship existed between perception and practice of FGM and between awareness and practice of FGM.
Conclusion: The practice of female genital mutilation (FGM) is persistent among rural women and this is influenced by the opinion of the women. The women positively perceive the practice of FGM to be good, thus, leading to its continuation. A community-wide campaign should be organized by the nurses in collaboration with the community leaders and the government against the practice of FGM.
Keywords: Perception, Practice, female genital mutilation, Rural Women, Enugu.

MULTI-SECTORAL COORDINATING ACTION: LESSONS LEARNT FROM EARLY COVID-19 IN NIGERIA

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Introduction: In early 2020, countries across the globe were forced to act fast and organise themselves in response to the newly identified COVID-19 virus. In February 2020, Nigeria became the first country in sub-Saharan Africa to confirm the presence of a COVID-19 case, which later rose to thousands of confirmed cases, and around 3000 deaths. The Nigerian government swung into action, declaring COVID-19 a public health emergency, scaling up testing facilities, increased funding to health agencies, and setting up a COVID-19 taskforce. This paper outlines how these coordinating actions evolved in containing the pandemic.
Materials and Methods: Continuous and iterative synthesis of secondary data drawn from peer reviewed literature, unpublishes articles, government documents, newspaper publications and relevant government websites, the key ones being the presidential task force (PTF), now known as the presidential steering committee (PSC) on COVID-19.
Results: Following the confirmation of the first COVID-19 case on 25th February 2020 in Nigeria, Federal and State governments put measures in place to stem transmission, culminating in multiple phases of implementing then easing restrictions - all with varying health and socio-economic impacts. The Ministry of Health and the Presidential Task Force on COVID-19 (PTF COVID-19) led the national coordinating activities related to COVID-19 across Nigeria. The Ministry of Health is statutorily known for dealing with health concerns in Nigeria, however, COVID-19 came as an emergency needing a multi-sectoral response. This led to the establishment of the PTF COVID-19 by President Muhammadu Buhari on March 9, 2020. Comprising membership of the PTF COVID-19 include the Secretary to the Federal Government, an appointed National Director of the Committee, Director General of the Nigeria Centre for Disease Control (NCDC), Ministers of Health, Interior, Humanitarian Affairs & Disaster Management/Social Services, Information, Education and Environment. The Director General of States Services and WHO Acting Country Representative. The PTF COVID-19 remit was to: support the National Emergency Operations Center at the NCDC and other relevant Ministries and Government Agencies; coordinate effective policy and programmatic responses as well as preparedness across the center and states; partner and guide state designed attempts to contain the virus; ensure public engagement; engage and sustain bilateral and multilateral relationships with international organizations and bodies; and advise on funding and utilization of other resources needed.
Conclusions: Pandemics and epidemics can happen at any time, and leadership must galvanize health and supportive systems in preparation for a broad range of public health disruptions. COVID-19 as a public health emergency came on an instructive note to governments all around the world. Reflecting on the management of COVID-19 by the Nigerian government, lapses in the areas of governance, accountability, enforcement, and the management of disadvantaged groups noted during the COVID 19, need to be addressed. Notwithstanding the gains, especially the growth in the number of testing facilities, the overall management of COVID-19 leaves Nigerians with many lessons for improved management of disease outbreaks. Components of communication, accountability, security, and psychosocial provisions should be improved and strengthened in view of future disease outbreaks.
Keywords: COVID-19 pandemic, multi-sectoral; coordination; containment; Nigeria

LESSONS LEARNT FROM THE PANDEMIC: EMPLOYING MOLECULAR TOOLS IN DISEASES SURVEILLANCE A CASE OF AFRICAN SWINE FEVER OUTBREAK INVESTIGATION IN OGUN STATE NIGERIA.

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Introduction: The ongoing pandemic though with devasting public health and economic impact globally have left important lessons along its' track. Part of such is the role of molecular surveillance in disease control. Employing molecular techniques in outbreak surveillance is vital in informing public health decisions geared towards control. In 2019, Africa swine fever (ASF) outbreaks was reported and is still ongoing in some parts of the world including Nigeria where genotype I and II had previously been described. Thus, we investigated an outbreak of ASF in a farm located in Ogun State, southwestern Nigeria to determine the evolutionary history of the virus.
Materials and Methods: Following a notification sent to the Ministry of Agriculture of unusual mortality recorded in Oke-Aro farm settlement between the 15th – 24th June 2021, 5mls of Blood, sections of spleen and liver samples were collected post-mortem from 5 pigs to explore the causal agent and track the outbreak. Extracted Viral DNA was used to confirm the circulation of the African swine fever virus (ASFV) by amplification of the p72/B646L gene using conventional PCR methods and Sanger sequencing of the amplicons.
Results: Phylogenetic analysis identified amplicons as ASFV II which clustered with reference genotypes II from the Euro-Asia region and Tanzania in East Africa.
Conclusion: Given that this is the second report of ASFV genotype II in quick succession from Nigeria, it suggests a possibility of an unrecognized indigenous circulation or a re-emergence of previously controlled ASFV genotype II in the country. Being same genotype the ASFV responsible for viral haemorrhagic fever epidemic in swine population reported in Lagos Nigeria in 2019, we were able to link these separate outbreaks, and thus reinforce the usefulness of molecular methods in outbreak investigations and surveillance.
Keywords: African swine fever virus, genotype II, domestic pig, outbreak, Nigeria

SERUM SELENIUM LEVEL AND GLUTATHIONE PEROXIDASE ACTIVITY IN HYPERTENSIVE PATIENTS IN ENUGU, SOUTHEAST OF NIGERIA.

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Introduction: Serum selenium and glutathione peroxidise have been noted to play important roles in the aetiopathogenesis of hypertension. Selenium is a very important trace mineral found in form of selenoprotein like glutathione peroxidase and is involved in maintaining normal health and metabolism. This study was carried out to ascertain the serum selenium level and glutathione peroxidase activity among hypertensive subjects in Enugu.
Materials and Methods: This study was a hospital based descriptive cross-sectional study conducted at the Cardiology clinic of the University of Nigeria Teaching Hospital, Enugu. A total of 129 participants were recruited for this study: 86 hypertensive subjects and 43 healthy controls. The serum selenium and glutathione peroxidase activity were determined using standard methods.
Results: The mean age of the hypertensive subjects was 52.29±11.34 years while the mean age of the controls was 51.19±9.98 years. The mean systolic blood pressure (161.62±17.73 mmHg) and diastolic blood pressure (95.51±10.61mmHg) were significantly higher for the hypertensive subjects than the controls (SBP: 95.51±10.61mmHg, DBP: 73.26±7.13 mmHg). The mean values of serum selenium (0.72±0.22µmol/L) and glutathione activity level (45.00±15.53mmol/L) were significantly lower in the hypertensive subjects than the values for the controls serum selenium (1.12±0.33µmol/L) and glutathione activity (63.35±8.36 mmol/L) with the differences being statistically significant. Serum selenium and glutathione peroxidase activity level moderately correlated negatively with the systolic and diastolic blood pressure among the hypertensive subjects.
Conclusion: These result suggested that serum selenium and glutathione peroxidase activity may have significant role in the pathophysiology of hypertension.
Keywords: Selenium, glutathione peroxidise, trace mineral, enzyme, blood pressure.

AWARENESS, ATTITUDE, AND UTILIZATION OF PHYSIOTHERAPY SERVICES AMONG FITNESS OPERATORS IN THE COVID-19 ERA.

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Introduction: Lack of exercise and physical inactivity is reportedly one of the lifestyle-related risk factors for severe COVID-19 requiring hospital admission. Furthermore, it has been shown that a previously sedentary lifestyle increases the mortality of COVID-19 hospitalised patients. Consequently, individuals are becoming more concerned about their health status and quality of life; and as such enrol in fitness centres to optimise and maintain their fitness levels. The importance of physiotherapy services in fitness centres cannot be overemphasised, as physiotherapists are the ideal professionals to promote, guide, and prescribe exercises. This study determined the awareness, attitude, and utilization of physiotherapy services among fitness operators in the COVID-19 era.
Material and Methods: This cross-sectional research design utilised 48 fitness operators of fitness centres in Enugu, Nigeria. Ethical approval for the study was obtained from the Institutional Health Research and Ethics Committee. Questions on awareness, attitude, and utilisation of physiotherapy services were adapted from standardised questionnaires utilised in previous studies. Face and content validity of the questionnaire was determined to ensure the items on the questionnaire adequately addressed the research questions Descriptive statistics were used to present the results. The association between awareness/utilisation of physiotherapy services and age, gender, the highest level of education, and the number of years of working experience was tested using Pearson's chi-square test.
Results: Out of the participants, 46(95.4%) were aware of physiotherapy services, with 37(77.1%) indicating that they had utilised them in their fitness centres. Most of them that had utilised physiotherapy services 27(72.9%) reported that physiotherapy should only be incorporated when there is pain as a result of exercise activities. In addition, only 22(45.8%) strongly agreed that physiotherapy has a role to play in fitness centres. There was no significant association between the awareness of physiotherapy services and participants' characteristics. A significant association was observed between the utilisation of physiotherapy services and gender, as well as the highest level of education.
Conclusion: Though the majority of the participants were aware of physiotherapy services, not all of them reported that they had utilised the services in their fitness centres. Most of the participants poorly utilised the services and disagreed that physiotherapy has a role to play in fitness centres. This suggests the need for regular sensitisation programmes, such as conferences, workshops, seminars, and social media advertisements to be held to enlighten the fitness operators, clients, and the general public on the need for physiotherapy services in fitness centres, particularly in the COVID-19 era.
Keywords: Fitness operators, Physiotherapy services, COVID-19

PHENOTYPIC DETECTION OF EXTENDED-SPECTRUM BETA-LACTAMASE-PRODUCING ESCHERICHIA COLI AND KLEBSIELLA PNEUMONIAE ISOLATED FROM HOSPITAL AND ENVIRONMENTAL SOURCES IN ENUGU METROPOLIS, NIGERIA

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Introduction: Extended -Spectrum Beta- Lactamases (ESBLs) are enzymes that confer resistance to a wide range of β-lactam antibiotics but are blocked by beta-lactamase inhibitors. The study was carried out to evaluate the antimicrobial susceptibility profiles of Escherichia coli and Klebsiella pneumoniae and to determine the prevalence of ESBL-producing Escherichia coli and Klebsiella pneumoniae isolates from the hospital and environmental samples.
Materials and Methods: The work was conducted from October 2020 to June 2021 in the Microbiological Laboratory of the University of Nigeria Teaching Hospital Ituku-Ozalla, Enugu. A total of 150 non-duplicate bacteria isolates recovered from clinical specimen and environmental sources (water, zobo drink, soya milk) processed in the microbiology laboratories of three referral hospitals and some private laboratories in Enugu metropolis was used for the study. Isolates were identified and characterized using standard microbiological protocols. Antimicrobial susceptibility was performed using the Kirby-Bauer disc diffusion procedure. Phenotypic detection of ESBL production was determined using Double Disc Synergy Test.
Results: E. coli isolates from hospital samples were highly resistant to cefuroxime (100 %), cefixime (100 %) Augmentin (100%), ciprofloxacin (91%), and cefotaxime (86.6%). However, nitrofurantoin and imipenem were highly potent 80.6 % and 76.1% respectively. Among the 67 strains of E. coli from hospital samples, 32(47.8%) were found to be ESBL producers. Of the 60 Klebsiella pneumoniae hospital isolates tested, 27(45%) were found to be ESBL-producers. Of the 18 strains of E. coli from environmental isolates, 12(66.7%) were found to be ESBL producers. Out of only five Klebsiella pneumoniae from environmental samples tested, 4(80%) were found to be ESBL producers. A total prevalence of 75(50%) ESBL producers from the 150 isolates were found.
Conclusion: The findings of this study showed an alarming rate of 50% ESBL-producing E. coli and Klebsiella pneumoniae in Enugu Metropolis, Nigeria with a high antimicrobial resistance in both ESBL and non-ESBL-producing isolates.
Keywords: Antibiotic resistance, ESBL, Klebsiella pneumoniae, Escherichia coli, phenotypic method

SONOGRAPHIC REFERENCE VALUES FOR BLADDER WALL THICKNESS AND DETRUSOR WALL THICKNESS IN APPARENTLY HEALTHY ADULTS IN A NIGERIAN POPULATION

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Introduction: Accurate determination of bladder wall thickness (BWT) and detrusor wall thickness (DWT) can be used as a clinical tool to exclude bladder and detrusor pathologies in a healthy adult population. The aim was to establish reference values of BWT and DWT in apparently healthy adults in a Nigerian population.
Materials and Methods: A cross-sectional study of 170 male and 214 female healthy adult participants was conducted. The urinary bladder was sonographically evaluated using Siemens Acuson X150 manufactuerd in 2006. All adults within 18 to 64 years with a full bladder of at least 200 ml capacity participated in the study, Pregnant women and people with history of uropathy were excluded from the study. The BWT and DWT of the participants were measured and documented.
Results: The mean BWT and DWT were 2.8 ± 0.3 mm and 1.3 ± 0.1 mm respectively. There was no statistically significant correlation between anthropometric variables with BWT and DWT except age which had a weak positive correlation with BWT (p=0.05).
Conclusion: This data set could be used for future research in other parts of the country, for a possible nationwide nomogram.
Keywords: Urinary bladder, urinary bladder wall, detrusor wall thickness, sonography.

CROSS-CULTURAL ADAPTATION AND VALIDATION OF THE GERIATRIC DEPRESSION SCALE INTO IGBO LANGUAGE AS A TOOL FOR ASSESSING DEPRESSION IN THE COVID-19 ERA IN NIGERIA

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Introduction: Late-life experiences such as protracted and indisposing medical disorders can negatively impact older adults' psychological and mental health, making them vulnerable to depression. Majority of the assessment tools for depression were developed for use in western countries. There is therefore need for availability of culture- and environment- specific tools for assessment of depression in low- and middle-income countries. This study was designed to cross-culturally adapt and validate the Geriatric Depression Scale-15 (GDS-15) into Igbo Language and culture.
Materials and Methods: The English version of the GDS-15 was translated into Igbo language; synthesized, back-translated, and underwent expert panel review, pretesting and cognitive debriefing interview, according to Beaton's guideline. The Igbo version of the GDS-15 was tested for concurrent and structural validities and internal consistency among consecutively recruited 140 consenting older adults [88 (62.9%) females] in Enugu North Senatorial District, at 0.05 level of significance.
Results: The English version of the GDS-15 was successfully cross-culturally adapted to Igbo with all the 15 items still retained on the Igbo version of the GDS-15. The Igbo version of the GDS-15 exhibited the same structure as the English version. The Igbo version of the GDS-15 has Cronbach's alpha value of 0.53. Depression is a subjective psychological diverse variable which measurement requires the exposure of individual emotions and feelings. Hence, responses to the items may differ, thus resulting in poor internal consistency coefficient. However, it should be noted that a too-high alpha value may suggest that some items are redundant as they are testing the same question but in a different guise. A high reliability coefficient does not usually ensure accuracy of the study, rather it provides basis for making inferences about changes. The correlation between the participants' total scores on the Igbo and the English versions of the GDS-15 (rho = 0.86) was excellent. There was no significant difference between corresponding scores in the English and Igbo versions of the GDS-15 (p = 0.89).
Conclusions: The Igbo version of the GDS-15 is a valid and culturally specific instrument, and can be used for assessing depression among Igbo older adults in Nigeria.
Keywords: Geriatric Depression Scale, Cross-cultural adaptation, Validation, Igbo culture

DIETARY PATTERN AND BONE MINERAL DENSITY PARAMETERS IN A POPULATION OF NIGERIAN CHILDREN

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Introduction: Bone Mineral Density (BMD) which is the most effective way to ascertain an individual's bone health, has become a recurrent subject of discussion in relation to the bone health status of children. The calcaneal Quantitative Ultrasound (QUS) parameters- the broadband ultrasound attenuation (BUA) and the speed of sound (SOS)- are known to be associated not only to the mineral density of the bone, but also to bone quality and strength. Existing research indicates the significant role of dietary calcium in the optimization of bone development. This study sought to ascertain the relationship between the frequency of consumption of calcium-rich food and BMD parameters among Nigerian school children.
Materials and Methods: A total of 1,016 children, 6-14 years were enlisted randomly from schools in Enugu State, Nigeria. The QUS measurements were performed using Hologic Sahara Clinical Bone Sonometer, model 06569, manufactured in July, 2015. A calcium Consumption Food Frequency Questionnaire was used to assess the subjects' frequency of consumption of 19 different food items. Data collected were presented using frequency and percentages while relationship between the frequency of consumption of calcium-rich food and the QUS parameters was analyzed using correlation and regression analysis at 0.05 level of significance.
Results: The results revealed the mean values of BUA to be 60.57+16.21dB/M for the boys and 58.18+15.16dB/M for the girls while that of SOS was 1563.48+21.74m/s for the boys and 1560.03+22.32m/s for the girls. Most of the subjects did not frequently consume most of the food items. seafood and green leafy vegetables were the only food items that were frequently consumed by most the subjects {695 (68.4%), 536 (52.8%) respectively}. BUA was positively influenced by bread and melon seed consumption pattern but negatively influenced by green leafy vegetables consumption pattern ($p < 0.05$). The SOS was positively influenced by okra and cocoa beverages consumption pattern ($p < 0.05$).
Conclusion: The study revealed that BUA was positively influenced by bread and melon seed consumption pattern while SOS was positively influenced by okra and cocoa beverages consumption pattern. Enhanced consumption of these food among Nigerian children is recommended so as to enable adequate bone development in childhood in order to forestall osteoporosis in adulthood.
Key words: Bone mineral density; Dietary pattern; Broadband Ultrasound Attenuation; Speed of Sound; Quantitative Ultrasound.

THE IMPACT OF COVID-19 PANDEMIC ON RADIOGRAPHY EDUCATION IN A NIGERIAN UNIVERSITY

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Introduction: COVID-19 pandemic led to the lockdown of socio-economic activities and the shutdown of tertiary institutions globally and in Nigeria. However, there is a paucity of data on the impact of the COVID-19 pandemic on Radiography education in Nigerian universities, especially at the Nnamdi Azikiwe University (NAU), Nnewi campus.
Materials and Methods: This prospective cross-sectional study was carried out using a structured questionnaire. The items in the questionnaire were reviewed by a panel of two experts for reproducibility and validity of measurements. Items were included if they meet the scale content validity index (S-CVI) score of > 0.78. Using the S -CVI of 0.78, a total of 4 and 25 questions were included in sections A and B of the questionnaire respectively. The questionnaire thereafter returned an average reliability coefficient of 0.71 using the Cronbach alpha and Kuder Richardson (KR) – 20 tests. One hundred and twenty-five questionnaires were distributed by the researchers to students, academic and non-academic staff of the Department of Radiography, NAU. Descriptive and inferential statistics were used for data analysis using the statistical package for social sciences (SPSS) version 23 at a 5% level of significance.
Results: One hundred out of one hundred and twenty-five questionnaires distributed to respondents between the ages of 18 years and 66 years (mean age: 29.98 + 12.10 years) were completed and returned. The major impact of the COVID-19 pandemic on Radiography education in NAU were poor access to education financing (97%, n=97), poor attendance to lectures (91%, n=91), poor academic performance after the lockdown (85%, n=85), better attitude to infection control (81%, n=81), disruption of academic calendar (88%, n=88), the rushing of many lectures over a short time and low assimilation/understanding among students (75%,n=75), the predominance of physical classroom lectures especially among undergraduates (55%, n=55), promoted online lectures especially among postgraduate students (45%, n=45), better hygiene culture (35%,n=35; $0.00076 = p < 0.05$, adjusted $\alpha = 0.0032$)) and loss of interest in education (27.5%, n=27). However, only the enthronement of better hygiene culture had significant effects on Radiography education ($p = 0.00076$).
Conclusion: There were significant negative impacts of the COVID-19 pandemic on Radiography education in NAU such as poor access to education financing, poor academic performance after lockdown and poor attendance to lectures. The enthronement of better hygiene culture was the only significant positive impact of the COVID-19 pandemic on Radiography education in NAU.
Keywords: Covid-19, Education, Radiography, Institutions

EVALUATION OF QUALITY OF LIFE AND COPING STRATEGIES AMONG SEROCONCORDANT AND SERODISCORDANT COUPLES IN SOUTH EAST NIGERIA

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Introduction: Societal, economic and cultural factors tend to negatively impact the wellbeing of people living with HIV. Identifying and understanding the strategies they adopt to cope is warranted to inform relevant stakeholders and direct interventions to control stressors and provide appropriate counselling. The study assessed and compared the quality of life of seroconcordant and serodiscordant couples and identified the coping strategies they use.
Method: This cross-sectional study comprised of 250 participants (130 seroconcordant and 120 serodiscordant couples) recruited from three south east hospitals namely University of Nigeria Teaching Hospital, Enugu; Enugu State University Teaching Hospital and Anambra State University Teaching Hospital. Ethical approval was obtained from the ethics committee of the hospitals and the participants signed a written informed consent after the study was explained to them. The brief version of World Health Organization Quality of Life- Human Immunodeficiency Virus (WHOQOL-HIV-BREF) and Coping Orientation to Problems Experienced (COPE) Inventory were used to collect data on quality of life and coping strategies respectively. Data was analysed using the statistical package for social sciences (SPSS) [version 23.0 Chicago, 11, USA].
Results: Most of the participants were aged between 21-50 years (56.4%, n=141), had secondary education or higher (80.0%, n=200) and are employed (75.7%, n=189). Although majority of the participants were seroconcordant couples (52.0%, n=130), the serodiscordant couples showed better quality of life in all 6 domains compared to seroconcordant couples (≥55.5%) as they got more support from their negative partners. Majority of seroconcordant couples revealed lower quality of life in 3 domains of psychological (61.5%, n=80), level of independence (55.5%, n=72) and spirituality domains (64.0%, n=83). While the most frequently used coping strategies for seroconcordant couples were active coping (72.3%, n=94), acceptance (66.9%, n=87) and religious coping (63.0%, n=82), the serodiscordant couples mostly utilized suppression (70.8%, n=85), acceptance (65.9%, n=79) and active coping (65.8%, n=79) as their coping mechanisms.
Conclusion: Seroconcordant couples had lower quality of life compared to the serodiscordant couples and thus more attention should be focused into adequate counselling of the former since they scored poorly in domains relating to their psychological and spiritual wellbeing.
Keywords: quality of life, coping strategies, seroconcordant, serodiscordant, couples

INVESTIGATION OF AWARENESS AND PATTERN OF VOLUNTARY BLOOD DONATION AMONGST STUDENTS OF THE UNIVERSITY OF NIGERIA ENUGU CAMPUS POST COVID-19

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Introduction: The pandemic aggravated shortages in blood supply globally affecting even National blood transfusion and Red Cross blood service agencies. Other indirect fallouts of the pandemic also heightened to this deficiency. This highlighted the need for the development of a young constant donor pool to maintain the supply as the need for blood and blood products remains constant. Blood donation is the only way of acquiring enough blood to meet the needs caused by cases of transport accidents, complications during medical and surgical processes. Out of eighty million (80,000,000) units only about five hundred thousand (500,000) units are donated in Nigeria. As students of tertiary institutions consist a significant proportion of the target population of voluntary non-remunerated blood donation (VNRBD) for blood donation, we sought to assess the knowledge and attitude of the students of a tertiary institution to the concept of voluntary blood donation.
Materials and methods: This was a descriptive cross-sectional study; with four hundred and twenty-four (424) students of the University of Nigeria Enugu Campus enrolled into the study. Ethical approval was duly obtained from the College of Medicine Research Ethics Committee University of Nigeria Enugu Campus with Protocol No: 0106/06/2021, A semi-structured self-administered questionnaire was used to collect information on socio-demographic characteristics, knowledge, attitude and factors affecting voluntary blood donation and knowledge of anaemia. The data obtained from this study was analysed using SPSS package. Descriptive statistics and ANOVA was performed on the data sets.
Results: More than three quarters (84.4%, n = 358) of the respondents had never donated blood. Out of the 15.6%, (n = 66) that had ever donated blood, about 7.5% of the total (n = 32) donated blood voluntarily. This was however, the majority of the blood donors. Many of the donors donated for relatives (5.0%, n = 21). The highest attributable reason why many did not donate was a lack of opportunity (46.9%, n = 199). However, 57.1%, (n = 242) while not donors were willing to donate and 56.1, n = 238 were willing to donate without remuneration. Majority of the respondents (91.3%, n = 387) were also aware of the concept of anaemia.
Conclusion: Majority of the respondents were aware and had good knowledge about blood donation. However, the blood donation rate among them were very low. The major reason for non- involvement in blood donation was a lack of opportunity, while the highest percentage of donors were voluntary. A majority of them were however willing to donate blood without any form of remuneration. The university students could therefore be a source of voluntary non-remunerated donors if donation is made accessible for the pool of university students.
Key words: blood donation, awareness, campaign, policy, anaemia

ANTIBACTERIAL EFFECTS OF HONEY

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Introduction: Nutritive and medicinal properties of honey have been beneficial to mankind, particularly its antibacterial properties. Due to increase in drug resistance and incessant adulteration, various honeys were investigated for antibacterial activity against some clinical bacterial isolates. The study aimed at analysing phytochemical properties and determining antibacterial the antimicrobial efficacy of honey from various sources on selected microorganism.
Methodology: A total of 5 honey samples comprising of 1 branded (laser honey) and 4 unbranded honeys were harvested from various sources; Pot honey, Artificially harvested honey, cave honey and Plant honey [Mango (Mangifera indica)] honey. Phytochemical analysis were determined using modified methods of the Association of Official Analytical Chemist. Antibacterial susceptibility of honey were performed using agar well diffusion methods against two strains of Gram-negative (Escherichia coli and Pseudomonas aeruginosa), one Gram-positive (Staphylococcus aureus) and one fungi (Candida albicans). The zone of clearance was measured using a vernier calliper after 24hours of incubation at 37°c, so that the higher the clearance zone of each honey sample, the better the susceptibility pattern to the selected microorganism.
Results: Phytochemical analysis revealed the presence of flavonoids, terpenoids, phenols, saponins alkaloids and tannins in all the honey samples used. Susceptibility test of honey [1 branded (laser honey), Pot honey, Artificially harvested honey, cave honey and Plant honey, Mango (Mangifera indica)] showed mean clearance zone of 30mm, 39mm, 29mm, 45mm, and 39mm for Escherichia coli, 40mm, 29mm, 35mm, 31mm, 44mm, for Pseudomonas aeruginosa and 30mm, 36mm, 40mm,39mm, 35mm for Staphylococcus aureus respectively while Candida albicans showed no zone of clearance. Positive controls, ciprofloxacin and moxacillin gave an inhibition of 25mm and 25mm for S. aureus 24mm and 23mm for E. coli respectively and no clearance zone for Pseudomonas aeruginosa. The present study demonstrated that all the honey sample collected from different sources showed significant antibacterial activity against Gram-positive and Gram-negative bacteria but not fungi (C. albicans). When compared with a standard antibiotics (ciprofloxacin and moxacillin), all honey sample showed significantly higher antibacterial activity on all the organisms tested than the standard antibiotics. ($p<0.005$).
Conclusion: This study have shown the possibility of honey inhibiting the growth of these bacteria and this potentials may be employed in the management of infections caused by tested organisms.
Keywords: Honey, Antibacterial resistance, Antibacterial susceptibility, Phytochemical properties.

ASSESSMENT OF THE CYTOLOGICAL STAINING POTENTIALS OF BAPHIA NITIDA (CAMWOOD) EXTRACTS

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Introduction: Restrictions in manufacture and distribution of diagnostic reagents brought about by COVID-19 pandemic has led to increased interest in developing local sustainable alternatives. This study therefore evaluated the staining potential of crude extracts from Baphia nitida (camwood) as an alternative staining reagent for cytological diagnosis.
Materials and Methods: Seeds from B. nitida pods were obtained, dried and ground into fine powder. The powder was divided and dissolved in 100 ml each of cold water, hot water (heated to 1000C) and ethanol. The solutions were centrifuged and the supernatant collected and used as dyes. Buccal smears were prepared, fixed and stained with each extract alone, and as substitutes for eosin azure, and orange G6 in the standard protocol for Papanicolaou staining. The slides were evaluated by two independent experienced cytologists and scored semi quantitatively.
Results: The result obtained showed that the alcohol extract from B. nitida stained the nucleus and cytoplasm of the cells a light shade of blue when used alone. When used as a haematoxylin substitute, the alcohol extract also stained the nucleus and provided moderate differentiation from other dyes used in standard Papanicolaou staining protocol.
Conclusion: The alcohol extract of B. nitida shows good promise as a potential alternative nuclear stain for cytological preparations.
Keywords: Baphia nitida; diagnostics; cytology; buccal cells, Papanicolaou staining

BIOLOGICAL MONITORING OF WORKPLACE EXPOSURE TO TOXIC CHEMICALS IN THE BUCCAL CELL OF AUTOMOBILE PAINTERS IN THE COVID-19 ERA

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Introduction: COVID-19 has been declared a public health emergency, therefore its hazards must be assessed and managed by everyone, to ensure that the health and safety of workers are not compromised. Automobile painters are occupationally exposed to chemicals which may be detrimental to their health. This study assessed the cytogenetic damage associated with occupational exposure to toxic chemicals in paints by evaluating exfoliated buccal epithelial cells from automobile painters in Enugu metropolis using micronuclei assay.
Materials and methods: A total of 352 apparently healthy males, comprising 200 automobile painters and a control group of 152 subjects participated in the study. Buccal smears were obtained from each participant and were stained using Haematoxylin and Eosin technique. A total of 1000 cells per individual were scored under light microscopy to determine the frequencies of micronuclei (MN) and binucleate cells (BNC). Structured questionnaires were used to obtain relevant participant information such as; age, working experience, duration of exposure, use of protective equipment, smoking and alcohol consumption
Results: Automobile sprayers had significantly increased frequencies of MN and BNC (53.56±0.67, 4.95±0.11) when compared to the control subjects (12.14±0.61,1.45±0.11) respectively. Automobile painters aged over 35years had significantly higher buccal cell MN frequency (59.17±1.76) when compared to those < 25years (48.82±2.44). Also those who have worked for ≥15 years had significantly higher frequencies of MN (65.57±3.98) when compared to those who had worked for < 5 years (42.69±3.43). Smoking and alcohol consumption increased the MN frequency of the automobile painters (*$p<0.05$).
Conclusion: Automobile painters in Enugu Metropolis may be occupationally exposed to substances capable of inducing genotoxic changes which manifested as increased frequency of MN in their buccal cells. COVID-19 may also indirectly increase the risk of genotoxic changes.
Keywords: COVID 19, Automobile painters, occupational exposure, micronuclei, binucleate cell

AWARENESS AND PERCEPTION OF NOVEL OMICRON VARIANT (B. 1. 1.529) AMONG RADIOGRAPHERS

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Introduction: The advent of the novel Omicron COVID-19 variant is expected to alter radiographers' standard of practice due to its rapid transmission capability. This study aimed to assess the radiographers' awareness and perception of the Omicron among radiographers in Northern Nigeria.
Materials and Methods: A cross-sectional online survey was carried out among radiographers in Northern Nigeria using convenience sampling techniques. The survey tool was designed using Google consisting of questions on the demographics, general awareness, and perception about the Omicron. The questionnaire was face-validated, and the reliability was tested using Cronbach alpha. A coefficient of 0.7 was obtained which is considered adequate. Descriptive statistics and Chi-square test at 0.05 level of significance were used to analyse the data using Microsoft Excel 2016 (Microsoft Inc, Redmond, WA).
Results: A total of 186 radiographers participated in the survey. The respondents demonstrated a "Good" awareness level with an average score of 4.3/6 (70%). The perception was generally good as about half (n=91; 48.9%) of the respondents agreed with six out of eight perception-based determinants. Only a minority (n=77; 41%) of the respondents were not certain whether the Omicron spreads faster compared to other COVID-19 variants. A similar number (n=76; 40%) of the respondents were doubtful whether COVID-19 vaccine booster dose could help in curtailing the Omicron.
Conclusion: The level of awareness and perception of the Omicron among the radiographers was generally "Good". Notwithstanding, the radiographers were doubtful about the speed of the transmission of the Omicron and whether booster vaccination could help reduce the transmission. To mitigate occupational exposure to the novel Omicron COVID-19 variant amongst radiographers, urgent institutional strategies should be put in place to promote their knowledge and awareness of novel infectious diseases to keep up with the standard practice.
Keywords: Awareness, Infection control, Omicron COVID-19 variant, Perception, Radiographers,

SESSION 6

MENSTRUAL HYGIENE MANAGEMENT PRACTICES AND ASSOCIATED FACTORS AMONG PUBESCENT SCHOOL GIRLS IN ENUGU

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Introduction: Most pubescent girls in Nigeria, lack appropriate menstrual information, access to absorbent materials, and Water, Sanitation and Hygiene (WASH) facilities to manage menstruation in dignity and safety in most secondary schools, hence, they adopt unsafe menstrual hygiene practices with negative impact on their dignity and education, and predispose to poor reproductive health. We assessed the practices of menstruation and menstrual hygiene management (M&MHM) and its associated factors among pubescent school-girls in Enugu.
Materials and Methods: A school-based cross-sectional study was conducted with a total of 336 girls using a 21 items researcher developed questionnaire data collection. The researcher used Cronbach Alpha statistics to determine the internal consistency of the instrument which yielded 0.81 for section A, 0.77 for section B and 0.78 for section C. The overall reliability index was 0.81. This showed high reliability index and was used for the study Logistic regression analysis was employed to identify predictors of good menstrual hygiene management practices. The Adjusted Odd Ratio (AOR) and the associated Confidence Interval (CI) were determined.
Result: 112 (33.3%) girls had good menstrual hygiene management practices. Around one-thirds 111(33.1%) used commercial sanitary pads consistently. 215 (64%) do not change sanitary materials while at school, however, 68.3% cleaned their external genitalia at least once daily during their menstruation. Living with parents (AOR: 2.54, 95% CI: 1.75, 3.80), having moderate knowledge about menstruation (AOR: 3.86, 95% CI: 2.21, 6.77), and mothers' secondary or tertiary education (AOR: 1.83, 95% CI: 1.01, 3.30) had a positively significant association with good menstrual hygiene management practices.
Conclusion: Practice of good menstrual hygiene among pubescent schoolgirls was poor. Influencing factors were knowledge status of M&MHM, living with parents, mothers' educational status and availability of WASH facilities in school. There is need for targeted educational interventions to improve the knowledge and practices of menstrual hygiene management and urgent provision of WASH facilities in schools.
Keywords: menstruation, menstrual hygiene management, pubescent girls, WASH facilities, secondary schools

TOXICITY OF DOXORUBICIN IN THE KIDNEY OF EXPERIMENTAL RATS INFECTED WITH ASPERGILLUS FUMIGATUS

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Introduction: Doxorubicin, an anticancer drug, acts on deoxyribonucleic acid and globally prescribed for patients with cancer. This study assessed kidney damage in albino wistar rats experimentally infected with Aspergillus fumigatus.
Materials and Methods: Twenty-four (24) albino Wister rats weighing 180-185g were divided into 6 groups of 4 rats per group. Groups A, B and C served as neat, infectious and drug control respectively. The rats in groups C, D, E and F received graded doses of doxorubicin in the range of 2mg/kg bd wt., 1mg/kg bd wt., 2mg/kg bd wt. and 4mg/kg bd wt. respectively. After 3 days of administering doxorubicin, all the rats were bled and serum extracted. The rats in groups B, D, E and F were administered with *Aspergillus fumigatus* grown in Brain Heart Infusion broth. The rats in groups B, D, E and F received the following fungal loads; 108, 104, 106 and 108 respectively. On day 30, the rats were bled and serum (post inoculation sera) were extracted. The rats in all the groups were sacrificed and the kidney harvested for Aspergillus *fumigatus* re-isolation and histological studies. The pre and post serum were analysed for creatinine and urea.
Results: *Aspergillus fumigatus* were re-isolated from the kidney of rats in groups, D, E, and F in the presence of doxorubicin. The kidney function markers showed elevated creatinine and urea in groups D, E and F when compared with the control group (A). The doxorubicin control group C had elevated creatinine and urea. Histological findings showed varied grades of kidney architecture. The control group (A) had normal tissue architecture while B showed constriction of glomeruli with increased urinary pole. Group C showed tubular atrophy and constriction of glomeruli. Group D showed multiple degeneration and infiltration of inflammatory cells at periglomerular and peritubular regions. Group E and F showed mild construction of glomeruli and tubular degeneration with inflammatory cells.
Conclusion: Therapy with doxorubicin may lead to opportunistic infection which can enhance kidney damage.
Key words: Doxorubicin, *Aspergillus fumigatus*, Kidney damage, inflammatory cells

HAEMATOPOIETIC ACTIVITIES OF *CITRUS GRANDIS* (PULP AND RIND) IN ALBINO RATS

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Introduction: *Citrus grandis* possess medicinal properties. The phytochemicals confirmed the claims as medicinal plant. Haematopoietic activities of *Citrus grandis* (pulp and rind) extracts were investigated in albino rats.
Materials and Methods: Thirty-six albino rats were grouped into 9, labelled A to I. Non-induced groups (A – B) and (C – D) orally received graded-doses (250 – 500) mg/kg bodyweight of pulp and rind while anaemia-induced groups (E – F) and (G – H) orally received graded-doses (250 – 500) mg/kg bodyweight of pulp and rind respectively for 14 days. Group I served as control. Blood samples (4 ml) were collected from rats on days 8 and 15 for hemogram and iron using standard methods.
Results Day 8 revealed significant increase ($p < 0.05$) in RBC (x 10^{12}/L) of group B (4.1 ± 0.2), C (3.9 ± 0.1), D (4.2 ± 0.2), in iron of B (125 ± 2.6) and D (126 ± 3.9) ug/dL while day 15 revealed significant increase in haemoglobin (g/dL) of group A (12.9 ± 0.8), B (13.2 ± 0.1), C (13.1 ±1.3), D (13.5 ± 0.3), E (12.2 ± 1.1), F (12.8 ± 1.1), G (12.4 ± 0.4), H (12.9 ± 0.4), in haematocrit (%) of A (38 ± 2.1), B (40 ± 0.6), C (40 ± 3.1), D (42 ± 0.5), E (37 ± 1.5, F (38 ± 2), G (37 ± 2.5), H (39 ± 1.5), in iron (ug/dL) of A (128 ± 2), B (131 ± 2.7), C (133 ± 2) and D (135 ± 2), E (121 ± 0.9), F (126 ± 5.9), G (128 ± 2.2), H (130 ± 2.5) compared to control, RBC (3.3 ± 0.0) x 10^{12}/L, iron (119 ± 3.4) ug/dL, haemoglobin (11.5 ± 1.2g/dL) and haematocrit (35 ± 1.5%).
Conclusion: Pulp and rind demonstrated dose-dependent haematopoietic activities.
Key word: Haematopoiesis, Anaemia, Haematinic, *Citrus grandis*

VIRTUAL ULTRASOUND SIMULATION: A PARADIGM SHIFT IN SONOGRAPHY TRAINING IN NIGERIA

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Introduction: Since the advent of sonography practice in Nigeria, training of new sonographers requires the use of live patients in teaching hospitals and private centers or healthy subjects who simulate patients in healthy institutions, simulators for demonstration purposes. Certification requires that the candidate witnesses a minimum number of normal and pathological sonography examinations during training. Setbacks to this method include limited number of required pathology cases, increased risk of infection using live patients, and prolonged training. This paper proposes a novel method of ultrasound training which can replace/augment the current training method used.
Materials and Methods: A newly designed Virtual Ultrasound equipment, the Octopus series, is presented. It is manufactured by Schallware Ltd based in Germany.
Results: The Octopus series of Schallware uses live patient data acquired from thousands of ultrasound examinations to obtain anatomically accurate reconstructed images. It has the capability to train sonographers and other health care practitioners on internal medicine ultrasound, obstetrics and gynecology, Doppler sonography, trans thoracic and transesophageal echocardiography scans, small parts ultrasound. It has an ultrasound probe that can be used on a human phantom, and users are exposed to more than 600 pathological cases, including very rare cases. Proficiency examinations and assessments can be set up on the equipment and the competence of trainers graded.
Conclusion: A virtual ultrasound simulator is thus presented. Its use can revolutionize ultrasound training in Nigeria both for sonographers and other health care practitioners.
Keywords: Virtual training, sonography, ultrasound training, virtual simulation.

PREVALENCE, ASSOCIATED RISK FACTORS OF URINARY TRACT INFECTION AND ANTIBIOTIC SUSCEPTIBILITY PATTERN OF ISOLATES AMONGST FEMALE DIABETIC PATIENTS ATTENDING UNIVERSITY OF NIGERIA TEACHING HOSPITAL, ITUKU-OZALLA

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Introduction: Diabetes mellitus is a serious health problem in many parts of the world including Nigeria and it is a risk factor for developing urinary tract infection (UTI). Females experience UTI more than males due to shortness of their urethra. Resistance of bacterial isolates from UTI to commonly used antibiotics, is increasing. This study aimed at determining the prevalence of UTI, associated risk factors, causative agents and their antibiotic susceptibility pattern amongst female diabetic patients attending University of Nigeria Teaching Hospital (UNTH) Ituku-Ozalla, Enugu State, Nigeria.
Materials and Methods: This cross-sectional study was carried out from June 2019 to April 2021. Clean-catch early morning mid-stream urine samples of 200 randomly selected female diabetic patients with signs and symptoms of UTI attending diabetic clinics at UNTH, were examined for UTI using standard microbiological methods. Ethical clearance was obtained from UNTH. Informed consents were obtained from the patients. Demographic information of the patients were obtained using questionnaires. Face content validation involving three experts in Medical Laboratory Sciences was carried out on the structured questionnaire.
Results: A total of 66 (33.0%) of the patients examined were positive for UTI. Age group 41-45 years recorded highest prevalence for UTI (41.9%). Age group difference was not significant ($p > 0.05$). Of the 78 isolates obtained, Escherichia coli was the most frequent 32.1%, Candida albicans 28.2%, Staphylococcus aureus 26.9%, Klebsiella species 5.1%, Proteus species 3.8%, diphtheroid, Streptococcus species, Pseudomonas aeruginosa (1.3%) each. Gram-positive bacterial isolates were most susceptible to ciprofloxacin, levofloxacin, gentamycin (91.3%) each. Gram-negative bacterial isolates were most sensitive to gentamycin 81.8%, ciprofloxacin 72.7%. Marital status, Occupation, Birth control methods, Use of herbs/supplements, had association with UTI.
Conclusion: Female diabetic patients may be susceptible to UTI and are advised to undergo routine periodic tests for UTI.
Keywords: Urinary Tract Infection, Diabetes Mellitus, Antibiotic Susceptibility Pattern, Female Diabetic Patients, UNTH.

SELECTION OF APPROPRIATE BIOSAFETY CABINET IN LABORATORY PRACTICE- A CRITICAL CHALLENGE TO LABORATORIANS IN COVID LABORATORIES IN WEST AFRICAN.

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Introduction: The use of biosafety cabinet in laboratory practice cannot be overemphasized. But from our experience not much is known by laboratorians in the choice of the correct type or class of biosafety cabinet for use in their operations. The current COVID 19 pandemics made it more evident as some unfair suppliers simply supplied laboratories with boxes designed as cabinet for use in covid 19 testing. The consequences were averted by Centre for Disease Control USA insisting that cabinet must be certified by accredited certifier before it can be accepted for use. We reviewed the understanding of class and use of biosafety cabinets among Laboratory staff across some West African Countries.
Materials and Methods: We reviewed about a total of 56 laboratories across Nigeria, Burkina Faso, Sierra Leone, Liberia, marked for COVID 19 testing. The laboratories already reported to their Agency responsible for COVID lab approval that they have Biosafety Cabinet Class 2A2. The CDC recommended that a minimum of Class 2A2 cabinet be used for COVID 19 testing at the onset of the pandemic. A review of status of their bio-safety cabinets was made prior to certification.
Results: All the 56(100%) cabinets were not properly certified. 48 (86%) were not properly located in the laboratory. 26(46.4%) of the cabinets supplied were not biosafety cabinet Class2 (laminal flow hood, fume hood, wooden cabinet) and yet were accepted, installed and in use.51 (91.07%) of the cabinets were wrongly installed by untrained Biosafety cabinet certifiers. 3(5.4%) of the cabinet which was a class 2B2 hard ducted was so installed that there were no airflow readings and yet it was accepted for use by Laboratory staff. 12 (21.4%) failed certification and so were removed and replaced.
Conclusion: We observed that laboratory practitioners lack enough knowledge on biosafety cabinet technology and selection resulting in wrong delivery, poor installation, and certification. Assessors of Laboratories also require appropriate skills on biosafety cabinet systems as some of the Labs above were already assessed and recommended them for certification instead of removal. The lack of understanding of biosafety cabinet resulted in Poor usage of bio-safety cabinets- overloading of cabinet, blocking of exhaust filter outlet and airflow grills. There should be adequate training for scientific staff involved in diagnosis and research on biosafety cabinet to cover selection, classes, use, maintenance, and certification. There should be policy on minimum of annual certification of bio-safety cabinets in West Africa. In country resource for certification of biosafety cabinets is essential for immediate response and continuous training and mentoring of users
Keywords: Bio-safety cabinet, selection.

ATTITUDE AND PUBLIC PERCEPTION OF COVID-19 LOCKDOWN IN NIGERIA

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Introduction: Every state in Nigeria was under strict forms of social distancing, personal hygiene and lockdown. Understanding Nigerians' attitude and public perception concerning the lockdown orders is critical to curbing the spread of COVID-19, its associated health burden and for future purposes.
Methods: The study design was cross-sectional, self-administered online survey assessing attitude and perception of lockdown among Nigerians in the face of COVID-19 pandemic. The University of Nigeria Teaching Hospital (UNTH) ethics committee approved this study before data collection. Consecutive sampling technique guided the recruitment of all the 106 (61 males and 45 females) young adults who met the inclusion criteria and gave their consent for this study. Data were summarized using descriptive statistics of frequency count and percentages.
Results: One hundred and six participants completed the survey from the six geopolitical zones in Nigeria. All the participants (100%) had stnapicitrap eht fo ytirojaM .etac itrec etaudargtsop ro eerged a rehtie gnivah ytirojam eht htiw ,)loohcs yradnoces tsael ta(noitacude lamrof agreed that the government's lockdown order was an excellent measure to control infectious diseases, including COVID-19 (91.5%), but disagreed to the question about the lockdown's impact on the economy due to governments' efforts (93.4%). More than two-third of the participants disagreed that there was no need for the lockdown order enforced in the country.
Conclusion: Majority of the study participants agreed that there was a need for the lockdown order enforced in the country. Much of the lockdown order's perceived impact was due to lack of sensitization of the citizens before the lockdown and lack of government support before and during the lockdown period.
Keywords: COVID-19, Pandemic, lockdown, attitude, perception

LONG TERM CARE OF OLDER ROMAN CATHOLIC REVEREND SISTERS: A QUALITATIVE CASE STUDY OF AN ASSISTED LIVING FACILITY IN ENUGU STATE.

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Introduction: Long-term institutionalized care of the older adults is proved to improve their quality of life, but this type of care has a problem of acceptance and uptake in Nigeria. This study aimed at exploring how the older sisters are cared for in an assisted living facility; overview of the care facility, care activities employed, their aims and objectives and influencing factors to the quality of care rendered in the care facility.
Materials and Methods: A qualitative case study of multi-method research design; data collection methods employed were: document analysis of the care facility working documents, photo-elicitation of the facility and semi-structured interviews. An interview guide and the data summary notes (field notes) were the main research (data collection) instruments. Thematic analysis of the data was done by hand.
Results: Three major themes emerged following the triangulation of themes from the various sources and methods of data collection. Concerns about establishment of the care facilities: trigger and delaying factors. Considering care aims, types and approaches: to improve and maintain their biopsychosocial and spiritual wellbeing by health and the social cares. Limiting factors to quality of activities being rendered, points fingers to congregation, caregivers, government and relatives; the limited knowledge of the care demands, limited professionalism and the lack of expected supports, summarized by their unfavourable perceptions of such care and their unwillingness to actively and wholesomely commit to the care approach.
Conclusion: Poor attitude to ageing and institutionalized long term geriatric care of the elderly religious in Catholic Church calls for 'ageing and elderly care education'. While the unique research population is almost not researched, the Church in Nigeria and government should consider policies for care, healthy and successful ageing of clergies and the religious. Moreover, formal and informal caregivers should be exposed to advance training on institutional and long-term care of the older adults.
Keywords: Assisted living facility, older reverend sisters, religious, long-term care, Enugu.

EFFECTS OF FRACTIONAL NEEM LEAF EXTRACT(IRC) ON BLOOD GLUCOSE LEVEL IN ALLOXAN INDUCED DIABETIC WISTAR RATS

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Introduction: The study evaluated the effects of fractionated Neem leaf extract (IRC) on blood glucose level in Alloxan Induced Diabetic Wistar rats.

Materials and Methods: Fractionated neem leaf (IRC) was dissolved in phosphate buffered saline (PBS) pH7.2 was administered as 50mg/kg, 500mg/kg, 1000mg/kg, 2000mg/kg single doses and 5mg/kg, 50mg/kg, 250mg/kg and 500mg/kg repeated doses in diabetic rats while in the normoglycemic rats, 100mg/kg and 250mg/kg were used respectively. The positive control groups received single and repeated doses of glibenclamide (5mg/kg) while the negative control groups were left untreated in each case. Data statistical analysis was done using Graph pad prisms, student t-test and one way Analysis of variance (ANOVA) were used and $P<0.05$ was considered significant.

Results: Single doses of the extract in diabetic wistar rats produced maximal dose dependent percentage reduction in blood glucose level after 4 hours of administration with percentage reductions of 13.10% (500mg/kg), 14.40% in 1000mg/kg group and 17.50% in the 2000mg/kg group respectively. The result shows that 500mg/kg repeated doses gave the highest reduction in fasting blood glucose in Alloxan induced diabetic rats after 7, 14 and 21 days as follows; 55%, 31.7% and 29.3% while 250mg/kg repeated doses produced the highest percentage reduction in fasting blood glucose in non-diabetic rats at 7, 14 and 21 days and are 21.4%, 26.6% and 25.16% respectively.

Conclusion: IRC (Fractionated neem leaf) lowers fasting blood glucose levels in non-diabetic and Alloxan induced diabetic rats when given orally. This portrays that IRC can comfortably replace oral hypoglycemic in the management of diabetes mellitus in humans and with milder adverse effects since it is from plant origin, though further research on adverse effects and tolerability is advocated.

Keywords: Blood glucose, Diabetes, Wistar rats, IRC, Glibenclamide.

IMPACT OF COVID-19 ON HEALTHCARE AND ACADEMIC PROFESSIONALS: A MIXED STUDY DESIGN

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Introduction: The Corona-Virus Disease 2019 (COVID-19) pandemic is a defining moment for all human endeavors across countries, more so, in Nigeria. Health workers and academic staff are among the work force adversely affected by the disease thus culminating in the adoption of various measures to mitigate the transmission of the disease globally. This study assessed the impact of covid-19 on health care professionals (HCPs) and academics using a mixed study design.

Materials and Methods: Ethical approval was sought and obtained from HREC-UNTH, Ituku-Ozalla, Enugu State. A total of 256 (171 HCPs, 60 Academics & 25 HCP/Academics) Academics and Health professionals participated in this study. Physical Activity (PA), Work-related Musculoskeletal Disorders (WMSD), Work Load (WL), Quality of Work Life (QoWL) and Psychosocial challenges of the participants before and during the Covid-19 Pandemic Lockdown (C-19PL) were assessed using IPAQ, Nordic Musculoskeletal Questionnaire, NASA TLX, Walton's QoWL Questionnaire and a self-developed psychosocial impact scale (PPIS; all the instrument had excellent validity and reliability. Data collected were analysed using descriptive statistics, Chi-Square, paired t-test, and one-way ANOVA at $\alpha=0.05$.

Results: The general prevalence of WMSD was 68.4% (HCP=68.4%, Academics=60.0%, HCP/Academics=68.0%). There was a significant difference in the level of low-back ($X2=4.493$, $p=0.034$), and wrist/hand ($X2=8.606$, $p=0.014$) WMSD, all items of social relevance domain of QoWL ($p<0.05$) and three of the four items of PIS ($p<0.05$) among the groups. There was also a significant difference in the PA ($t=2.007$, $p=0.046$), WMSD frequency ($t=-8.28$, $p<0.0001$), and WL ($t=-15.519$, $p<0.0001$) before and during C-19PL.

Conclusion: The Covid-19 Pandemic restrictive measures had significant differential impacts on WMSD, PA, WL, QoWL, and PSC of Academic and HCPs.

Keywords: COVID-19 Pandemic, Quality of Work Life, Work related Musculoskeletal Disorders, Academics, Health Care Professionals

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