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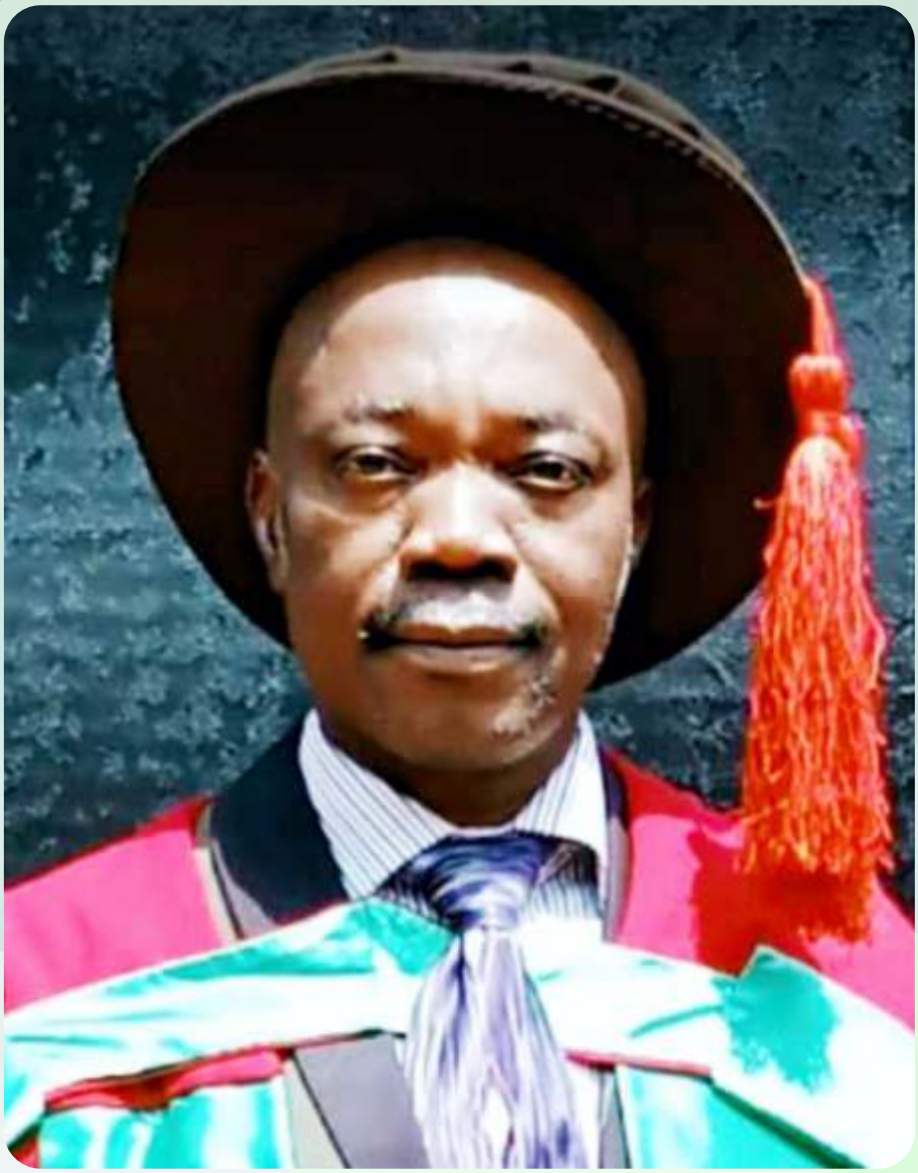
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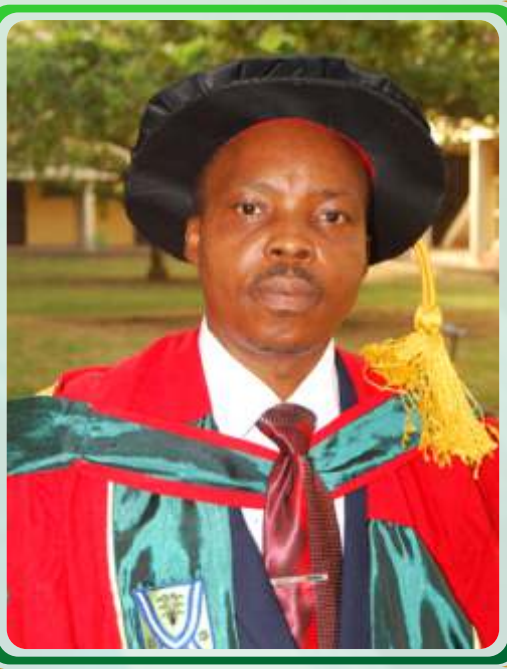
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PROGRAMME OF EVENTS

DAY 1: ICAN HALL 16TH MAY 2023			
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	Dr. (Mrs.) Maduka B.U.
Session 2a: Oral Presentations **Session 2b:** Virtual Presentation Lunch	1:00pm - 1:45pm 1:00pm - 1:15pm 1:45pm - 2:15pm	7 Presentations 11-17 12 Presentations 1-12	Dr. (Mrs.) Madu Obiageli Prof. F. U. Idigo etal
Session 3: Oral Presentations	2:30pm - 2:45pm	15 Presentations 18-32	Dr. (Mrs.) Onyemelukwe Anulike
DAY 2: CEMAC HALL - 17TH MAY 2023			
Session 4: Oral Presentations Tea Break/Guest Lecture	9:00am - 10:30am 10:30am - 11:30am	10 Presentations 33-42	Dr. Obinna Abonyi
Session 5: Oral Presentations **Session 5b:** Virtual Presentation Lunch	11:30am - 1:00pm 11:30pm - 01:00pm 1:00pm - 1:30pm	10 Presentations 43-52 13 Presentations 13-25	Dr. Okechukwu Onwukwe Prof. Silas Ufelle
Session 6: Oral Presentation Chairman's Closing Remarks End	1:45pm - 2:30pm	9 Presentations 53-61	Dr. Julius Agbo



CONFERENCE SESSIONS & ABSTRACTS



Physical Presentations

EVALUATION OF THE SOCIO-DEMOGRAPHIC AND HAEMATOLOGICAL VARIABLES IN PATIENTS WITH HAEMOPHILIA SEEN AT THE UNIVERSITY OF NIGERIA TEACHING HOSPITAL ENUGU

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Introduction: Haemophilia is an inherited bleeding disorder due to deficiency of factor VIII. Affected persons can bleed from any part of the body depending on severity with debilitating consequences. These bleeds could cause changes in the haemtological variables. The study aimed to evaluate the socio-demographic and haematological variables of persons living with haemophilia seen at UNTH Enugu.
Materials and Method: The study was a cross sectional study involving persons with haemophilia seen at haematology clinic in UNTH and their control. Socio-demographic and medical history (including disease severity and treatment type) were collected using a proforma. Venous blood was also collected from all participants for haematological investigations. Data was analyzed using the SPSS version 23
Result: The study involved 70 male participants (35 study participants and 35 controls) with ages ranging from 1 to 42. They were all of the Igbo ethnic group.
Six (17.14%) out of the 35 study participants had mild disease, 10 (28.06%) had moderate disease and 19(54.26%) had severe disease. Twenty-one (21) were on prophylaxis while fourteen (14) were on on-demand therapy. Data revealed that all study participants were regular with clinic visits. The mean haemoglobin level of the study participant was 11.75 ±1.1g/dl while that of the control was 12.26 ±3.1g/dl. The mean total white blood cell count of the study participants was 5.97±0.98x

ERGONOMIC EVALUATION OF UNDERGRADUATE CLINICAL POSTING SHUTTLES IN UNIVERSITY OF NIGERIA ENUGU CAMPUS

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Abstract
Introduction: Ergonomics encompases the study of the design of an equipment, a workplace, a product, a system and an environment which considers the physical, physiological, biomechanical and psychological abilities of human beings in order to ensure their safety, health and general wellbeing. The shuttles used by clinical students in this environment are yet to be evaluated amidst the growing risks they pose to the life of our future custodians. This study evaluated the clinical undergraduate shuttles and explored the lived experiences of these students.

Method: This mixed study assessed the ergonomic qualities of (n=15, %=100) buses which represented the samples of clinical posting shuttles for the students, using self-developed and content-evaluated assessment guide. A focus group discussion was also conducted to evaluate the lived experiences of the clinical students who use these vehicles. Ethical approval was sought and obtained from the Research and Ethics Committee of the University of Nigeria Teaching Hospital.
Results: The total number of shuttles evaluated was (n=15, %=100) with varying models. (n=5, %=33.3) of the shuttles evaluated were Toyota Hiace minibuses, (n=4, %=26.7) were Mercedes 608, (n=2, %=13.3) percent were Toyota coaster buses, another (n=2, %=13.3) were Mercedes Marcopolo, (n=1, %=6.7) were Fiat J5 minibuses and another (n=1, %=6.7) were Volkswagen. The minimum technological age of the vehicles assessed was 31years while the maximum technological age was 54years. Most of the vehicles were worn-out and lacked basic safety and ergonomic features. All (100%) the vehicles lacked functional temperature regulators. A total of 16 themes emerged which non—passionately described the lived experiences of the clinical students who used these vehicles.
Conclusion: Clinical students of UNEC face various challenges in transportation to the hospitals for clinical postings. The shuttles have poor ergonomic qualities and this affects their general wellbeing. The University and Student Union administrators should declare a state of emergency on the transportation of clinical students in order to reverse the portending dangers
Keywords: Ergonomics, Clinical Students, Shuttles, Occupational Safety, Undergraduates

NON-COMMUNICABLE DISEASE, CURRENT TRENDS IN MANAGEMENT

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Introduction: Globally, non-communicable diseases are the main factor in early mortality. Heart attacks, strokes, cancer, chronic respiratory illnesses, diabetes, and mental disorders account for 41 million deaths worldwide each year. That accounts for more than 70% of all fatalities worldwide and has a devastating economic effect.

These NCDs have a number of common, modifiable behavioral risk factors in common, such as cigarette use, poor food, inactivity, and problematic alcohol use, all of which contribute to overweightand obesity, elevated blood pressure and cholesterol levels, and ultimately, disease. In low- and middle-income nations, where more than 75 percent of NCD deaths take place, they remain a significant public health concern.

Materials/Method: The study used a descriptive case study that was clinically controlled. The author was able to summarize non-communicable illnesses' characteristics, features, and facts utilizing the data that was gathered through document reviews, key interviews, and data collection from a small sample.

Result: Smoking and industrial exposure to the cotton and jute industries are the major cause of prevailing COPD among sample. 50% of adult males smoke tobacco, and 50% of sample women use smokeless tobacco and are exposed to indoor air pollution. As a result, smoking was responsible for nearly 5,000 fatalities in the sample population.

Conclusion: In order to prevent missed opportunities for NCD diagnosis and management, this study evaluates interventions that target NCDs, including health promotion, enhancing primary care's capacity and competences to address various chronic illnesses, and integration with other complementary programs.

IMPACT OF NURSE-LED HEALTH EDUCATION INTERVENTION ON COMPLIANCE LEVEL OF ANTI-TUBERCULOSIS DRUG TREATMENT AMONG TB PATIENTS IN HOSPITALS, NIGERIA.

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Introduction: This study assessed the impact of nurse-led health education on the compliance level of anti-tuberculosis drugs among patients in referral hospitals in Nigeria. Tuberculosis is a serious lingering necrotizing communicable disease caused by a bacterium known as Mycobacterium tuberculosis (commonly referred to as TB bacilli). It is characterized pathologically by inflammatory changes, caseation, tubercle formation, and fibrosis.

Materials and Methods: A quasi-experimental design involving a control group pre-test-post-test involving was employed, and a sample of 194 was drawn from the two total populations of 339 patients using purposive and simple random techniques. Self-developed questionnaires and checklists were the instruments for data collection. Ethical approval was obtained from relevant authority. The pre-post-test were administered to both the intervention and control groups while only the intervention group received nurse-led health education. Descriptive and inferential statistics were used, inferential statistics were used to compare the groups and test the effects of the intervention on the compliance level of the participants.

Results: Baseline findings revealed that participants in both groups showed a very poor level of compliance [Control. 90 (9.0%), Interventions. 90 (6.0%). The compliance level with the PTB drug regimen was found to be significantly higher in the intervention group than in the control group post-intervention [int.84(90.6%), con.90(16.2%)] at $p < 0.05$. Nurse-Led health education had a significant effect on compliance with the TB drug regimen ($p < .001$). There was a statistically significant difference in the compliance level of the intervention group before and after the health education intervention ($t = 18.86$, $p = 0.000$ at $p < 0.05$).

Conclusion: Health education has a significant impact on compliance levels. There is a need to provide psychological counselling and TB education strategies in each referral centre.

Keywords: Pulmonary tuberculosis, compliance level, Tb patients, Nurse-led education



ANTHROPOMETRIC EVALUATION AND ERGONOMIC ASSESSMENT OF CLASSROOM FURNITURE SUITABILITY FOR UNDERGRADUATES IN A NIGERIAN UNIVERSITY.

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Introduction: Anthropometric data are essential for applying ergonomic principles for the design and implementation of the principles of fitting the furniture to the user. Furniture designs that does not match with the body dimensions predisposes students to negative health impacts. This study determined the level of furniture mismatch among these cohorts.
Method: This cross-sectional study done among undergraduates of the Faculty of Health Sciences and Technology in the University of Nigeria. Classroom furniture design was assessed using a self-structured ergonomic checklist. Ethical approval was sought and obtained from the Research and Ethics Committee of the University of Nigeria Teaching Hospital. Anthropometry and classroom furniture measurements was also evaluated to determine mismatch. Data were analyzed descriptively and inferentially with chi-square at α=0.05.
Results: A total of 1200 students from different departments and levels of study was selected. The study revealed a high percentage mismatch for seat height (100%, n=1200), desk heights (100%, n=1200) and seat width (96.1%, n=1153) and a moderate mismatch for seat depth (59.6%, n=715) and backrest height (59.3%, n=711). There was a significant association between the furniture mismatch and each of departments ($p<0.05$), grade ($p<0.05$).
Conclusion: There is a substantial degree of mismatch between the furniture design and the anthropometry of the students. This mismatch can predispose them to musculoskeletal disorders and therefore calls for immediate intervention.
Key words: Ergonomics, Anthropometric measures, Furniture dimensions, Match and Mismatch.

PREVALENCE OF POSTPARTUM FEMALE SEXUAL DYSFUNCTION AMONG WOMEN IN SOUTH EAST NIGERIA

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Background: Sexual function is an important indicator of health for postpartum women. Changes occurring during childbirth and the postpartum period often results in reports of sexual dysfunction among postpartum women. A high prevalence of sexual dysfunction has been reported as a result in postpartum women, however there is paucity of studies that record these numbers in Nigeria. This study aimed to ascertain the prevalence of sexual dysfunction among postpartum women in southeast Nigeria.
Method: A total of 332 women (less than 6 months postpartum) living within Enugu and majorly within ages 26-35years (73.5%) participated in this cross-sectional study. The Female Sexual Function Index (FSFI) was used to collect the data and data were analyzed using descriptive statistics.
Results: Out of 332 respondents, 235 (76.5%) scored below 26.55 on the FSFI and were found to have sexual dysfunction. The most common type of sexual dysfunction among the postpartum women was lubrication disorder (97.3%, n=323) followed by desire (92.2%, n=306) arousal disorders (85.2%, n=283). While the three less common types among the women were pain (78%, n=259), orgasm (74.7%, n=248), and satisfaction (56.3%, n=187). A significant association was found between postpartum sexual function and time since last delivery (p=0.007) as well as between mode of delivery and female sexual dysfunction (p=0.011).
Conclusion: Majority of the postpartum women in this study presented with sexual dysfunction. The most common sexual disorders among these women was lubrication and arousal.
Keywords: Women, Postpartum, Sexual function, Female Sexual Dysfunction, Prevalence

CAREGIVERS OF CP CHILDREN ADHRERENCE LEVEL TO HOME EXERCISE PROGRAMME AND IT'S CHALLENGES

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Background: Caregiving tasks and healthcare management responsibilities that are associated with caring for a child with multiple disabilities at home can be a challenging task for caregivers. For children with physical disabilities, the active participation of their families in home exercise programme (HEP), is an essential key for successful therapy interventions. This study was aimed at assessing caregivers' adherence level to HEP and challenges in HEP adherence.
Method: This study employed a mixed study design. A total of 101 caregivers of children with cerebral palsy at the Physiotherapy Departments of University of Nigeria Teaching Hospital, Ituku Ozala and Enugu State University Teaching Hospital, Parklane, Enugu State were involved in the study. A total of 17 out of the 101 participants were involved in the qualitative study using a face to face individual interview with an in-depth semi-structured interview guide till data saturation. While an adherence survey was used in assessing caregivers adherence level to HEP. They all consented before being involved in the study, while ethical approval was obtained from Health Research and Ethics Committee of University of Nigeria, Teaching Hospital, Ituku Ozalla and Parklane Teaching Hospital, Enugu State. The instruments used in the study are socio-demographic questionnaire, an adherence survey questionnaire, a semi-structured in-depth interview guide and a digital recorder. Descriptive statistics was used in the analysis of the variables and thematic matrix analysis was used in the qualitative study.
Results: For the qualitative study, seven themes were generated; Family; Home exercise programme characteristics; Time; Pain; Lack of Childs co-operation; lack of motivation; stress. The results also showed that good adherence ratio was 57.4% (N=58) and a total of 42.6% caregivers (N=43) were poorly adherent to the home exercise programme.
Conclusion: Adhering to prescribed home exercise programme is challenging to caregivers of children with cerebral palsy but with a minimal effect on their HEP adherence level.
Keywords: home exercise programme, cerebral palsy, adherence,

PREVALENCE OF ERB'S PALSY IN IKWERE LGA OF RIVERS STATE.

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Introduction: It's becoming a menace or dilemma for parents whose kids presents with Erb's palsy after birth. Erb's palsy is a deformity that happens mostly to babies during birth as a result of the affectation of the Brachial Plexus .In Rivers state, it seems to be a common trend that every 3 babies out of 100 must present with Erb's palsy. The researcher noticed a surge in the prevalence of Erb's palsy among children in Rivers state, both those diagnosed early and those that came late. It puts the parents into tears seeing their babies disfigure after suffering for 9 months.
Material: Questionnaire, weighing scale,Toronto test score, Active movement scale, toddler Arm use test, Mallet scale.
Ethical Consideration: Rivers state Teaching Hospital Research and Ethics Committee William-Jumbo, Old GRA, Rivers state.
Results: The highest number of women (n=22) 41% fall within the age range of 20-25years, the lowest age bracket being n=(6) 3% with the age range of 35-40years, 35% (n=18) for 14-20years, 15%(n=10) for 25-35years and 6% for the age range of 30-35years respectively. greater number of mothers having kids with Erb's palsy falls within the age range of 20-25years. 54% (n=31) of the mothers did not attend basic education, 3% (1) attained to the level of MSc/PhD, 20% (15) attained High school, 14% (n=10) has OND and 9% has BSc respectively. 0% is strongly knowledgeable about Erb's palsy, 52% (n=39) where strongly not Aware of the condition, 38% (n=18) where not-Aware while 10% (n=6) where Aware. 32 medical professionals where involved. 45% (n=15) are strongly aware of the condition Erb's palsy, None is strongly not Aware, 45% (n=15) where just Aware, while 10% (n=2) is Not Aware.. From the data, none of the mothers reported the cases within days of presentation. Some believed it will resolve on its own. 10% (n=2) reported within weeks, 23% (15) reported within 3-6months, 28% (n=17) reported within 6months to 1year, while 39% (n=29) reported between 1years – 5years.
Conclusion: ignorance of the case and late presentation is the problem.
Keywords: Erb's, Ikwere, TBS, knowledge

EVALUATION OF THE COMBINATION EFFECTS OF EXTRACTS OF Jatropha tanjorensis AND Adansonia digitata ON CLINICAL FUNGAL ISOLATES.

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Introduction: Jatropha tanjorensis and Adansonia digitata has being in use since ancient time to cure minor health issues, hence the aim of this study to evaluate the combination effects of the extracts of jatropha tanjorensis and adansonia digitata on clinical fungal isolates.
Materials and methods: The phytochemicals screening of the extracts were done and the methanol and aqueous (cold and hot) extracts of the plants bark, leaves and stem were assessed for their antifungal activities against 8 fungal isolates using agar diffusion method. The minimum inhibitory concentration (MIC) and minimum fungicidal concentration (MFC) were done according to standard methods.
Result: The phytochemicals screening showed that the plants contain alkaloids, terpernoids, saponins, flavonoids, tannin, glycoside and phenol. The hot water extracts of J. tanjorensis gave a higher zone of inhibition diameter (IZD) better than the methanol and the cold water extract while the methanol extracts of A. digitata gave a higher IZD than the cold and the hot water extracts, this depicts high antifungal activities. The Combined extracts showed the highest susceptibility on Aspergillus niger while showing lowest susceptibility on Trichophyton shoenleinii. There was no statistical significant difference (p=0.613119) in susceptibility pattern of the methanol and aqueous extracts of the A. digitata bark, leaf and stem. However, there was significant difference (p=0.033593) in the aqueous and methanol extract of J. tanjorensis stem and bark at concentrations of 100mg/ml and 50mg/ml. Conventional antifungal drugs showed highest antifungal activity. The lowest (MIC) and (MFC) were recorded in A. niger (1.5625mg/ml) and (3.125mg/ml) respectively while the highest (MIC) and (MFC) were recorded in T. shoenleinii (25mg/ml) and >100mg/ml respectively.
Conclusively, this study revealed that the combined plant extracts were more effective against opportunistic fungi than the dermatophytes. We therefore recommend the use of the combined plant extracts for therapeutic uses against opportunistic fungal infections.
Keywords: Jatropha tanjorensis, Adansonia digitata, Fungi, Minimum inhibitory concentration.

COMPARISON OF HAEMATOLOGICAL INDICES IN ADULT SICKLE CELL PATIENTS WITH AND WITHOUT LEG ULCERS

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Background: Leg ulcer is the commonest cutaneous manifestation of sickle cell disease (SCD). The pathophysiology of sickle leg ulcers is complex and multifactorial. The aim of the study was to compare the haematological indices between sickle cell patients with leg ulcers and those without leg ulcers accessing care in UNTH, Enugu.
Methodology: This was a cross sectional comparative study between sickle cell patients with leg ulcers and those without leg ulcers. Haemaglobin, white blood cell (WBC) count and platelet count were analysed using an auto-analyser while reticulocyte count was done manually.
Results: The study involved 60 subjects (30 HbSS patients with leg ulcers and 30 HbSS patients without leg ulcers). There was a statistically significant lower median haemoglobin concentration between HbSS patients with sickle leg ulcers 6.9g/dl and those without sickle leg ulcers 8.7g/dl (p = 0.0001). Median total WBC count was significantly higher in patients with sickle leg ulcer 10 x 109/L compared with those without sickle leg ulcers 8.1 x 109/L (p = 0.004). Platelet count was significantly higher in patients with sickle leg ulcer 301 x 109/L compared with those without sickle leg ulcer 260 x 109/L (p = 0.038). Reticulocyte count was significantly higher in HbSS patients with sickle leg ulcer 2.4% in relation to patients without sickle leg ulcer 1.9% (p = 0.020).
Conclusions: Sickle cell anaemia patients with leg ulcers have a significantly lower haemoglobin concentration, higher WBC count, higher platelet and reticulocyte count when compared to those without leg ulcers. Measures to improve haemoglobin concentration should be taken to aid wound healing.
Key Words: Sickle cell disease, leg ulcers, haematological indices, Enugu

IMMUNOGLOBULIN HEAVY CHAIN VARIABLE REGION GENES USAGE AND MUTATIONAL STATUS IN CHRONIC LYMPHOCYTIC LEUKEMIC PATIENTS IN NIGERIA.

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Introduction
Chronic lymphocytic leukemia (CLL) is an indolent B-cell lymphoid neoplasm characterised by the clonal expansion of CD5/CD23/CD19 and CD20-positive positive B-cells in blood, bone marrow and lymph nodes. It is commonly seen in the western world when compared to sub-Saharan African regions. The mutational status of the immunoglobulin heavy chain variable region (IGH) genes is a prognostic feature in CLL. The aims are to identify the most commonly used alleles of the variable (V) diversity (D) and joining (J) gene segments of the IGH gene, to analyse complementarity determining region 3 (CDR3) properties and the mutational status of the IGH in CLL.
Materials and Methods: We analysed IGH genes' mutational status by performing the sequencing of 8 Nigerian CLL patients out of 23 CLL cases obtained from three centres namely, University College Hospital, Ibadan, Oyo State, Enugu State University of Science and Technology Teaching Hospital (ESUTH), and Meena Histopathology and Cytology Laboratory, Jos, Plateau State. Diagnosis of CLL was confirmed according to the latest World Health Organisation (WHO) classification in our previous study. The samples were subjected to polymerase chain reaction (PCR) amplification of the IGH locus using the BIOMED-2 protocol. The research approvals were obtained from the University of Nigeria Teaching Hospital, Enugu (UNTH-NHREC/05/ 01/2008B), Ministry of Health, Ibadan, Oyo State (AD13/479/1138), and Meena Histopathology and Cytology Laboratory, Jos, Plateau State (MEENALAB/AEC/ 177).
Results: Out of the 23 cases, 8 (30.4%) cases were amplifiable and showed common clonal origin using the FR1 primer mixes (BIOMED-2 protocol). The ages of the patients with the sequenced cases ranged from 50-78 years, with three females and four males. Most of the specimens were from nodal sites although two cases were from extra nodal sites, namely the colon and the omentum. Clinical information on patients as regards to the staging of the disease, treatment and overall survival were not available. The IGH analysis, revealed the frequent usage of the IGHV4-34 allele (38%) for the V gene segment, IGHD6-13 (43%) for the D gene segment and IGHJ4-02 allele (43 %) for the J gene segment. The mutational analysis revealed that 62.5% of the CLL cases had mutated IGH and this occurred more within the older age bracket. The complementarity determining region (CDR3) properties showed a median length of 13 amino acids and longer CDR3 lengths were recorded in unmutated cases as opposed to mutated cases (P=0.002).
Conclusion: The study demonstrated a higher prevalence of IGHV4-34 gene usage of the IGH in Nigerian CLL patients and more of mutated IGH than unmutated IGH which is indicative of favourable prognostic feature in the studied Nigerian cases.
Keywords: Immunoglobulin heavy chain (IGH) genes, Chronic lymphocytic leukemia, mutational status, CDR, VDJ.

TOPIC: PREVALENCE AND RISK FACTORS OF DYSLIPIDEMSIA AMONG STUDENTS OF UNIVERSITY OF NIGERIA ENUGU CAMPUS.

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Abstract: Background: Dyslipidemia is an abnormal amount of fat in the blood and the risk factor for the development of cardiovascular disease. There are reports of increasing cardiovascular diseases among the unaware young population, yet the prevalence of dyslipidemia has not been clearly elucidate.
Objective: We studied the prevalence and risk factors of dyslipidemia among students of University of Nigeria Enugu Campus.
Method: This is a cross sectional study of 60 apparently healthy students of the University of Nigeria. After ethical clearance from UNTH, Enugu, anthropometric parameters and lipid profiles were analyzed LDL cholesterol, HDL - cholesterol, Triglyceride (TC) and VLDL cholesterol were determined in fasting blood samples. Data obtained were statistically analyzed using SPSS and inference made.
Result: The overall prevalence was 5% (Chi = 0.351, P > 0.05). The mean

SONOGRAPHIC ASSESSMENT OF FETAL COLON DIAMETER AS A TOOL FOR ESTIMATING GESTATIONAL AGE IN ADVANCED PREGNANCIES IN A NIGERIAN POPULATION

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Introduction: Currently, ultrasound protocol for estimating fetal gestational age includes measurements of bi-parietal diameter, femur length, head circumference and abdominal circumference. These methods are not reliable at third trimester. This necessitates the consideration of colon diameter as a tool for estimating gestational age at third trimester. This is as the colon is not subject to space constriction at third trimester and commences its development at later stages of intra-uterine life. This study therefore, aimed to generate local data on colon diameter and assess the use of same as an independent parameter for estimating gestational age in third trimester.
Materials and Methods: This prospective cross-sectional study was carried out from July 2019 to January 2021 and involved 366 apparently normal fetuses in apparently normal mothers in a single center study. The fetuses were scanned at 1st trimester to obtain baseline gestational age and at 3rd trimester to obtain internal diameters of the descending colon and other conventional biometric measurements. The colon diameter measurements were obtained on a sagittal image the proximal 1/2 of the descending colon, on the same plane with the body of the stomach. Pearson's correlation was used to assess or significant relationships while fractional polynomial regression was used establish the mathematical relationship between fetal colon diameter and gestational age.
Results: This study found that fetal colon diameter increases with gestational age at third trimester and has a positive relationship with gestational age. Pearson's correlation showed $r = 0.881$, $P < 0.001$. Fractional polynomial regression equation obtained was CD = -0.4515 + 0.07703 GA + 0.000009102 GA3. The mean of the colon diameter values obtained in this study was 9.32 ± 2.37mm. The minimum colon diameter obtained was 5.4 mm while the maximum was 16.2mm.
Conclusion: This study suggests that a strong positive relationship exists between fetal colon diameter and gestational age at third trimester. This work also provides a baseline normal range of values for descending colon diameter which finds significance in assessment of pathological distension of the colon in fetuses in utero.
Keywords: Gestational age estimation, fetal colon diameter, third trimester, ultrasound biometric parameters

ERGONOMIC EVALUATION OF THE ACCESSIBILITY OF THE PUBLIC BUILDING IN A NIGERIAN UNIVERSITY TO PEOPLE LIVING WITH DISABILITIES – A STUDY ON INCLUSIVE LEARNING.

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Introduction: Creating environments that are accessible and supportive to People Living with Disabilities (PLwDs) is a major pragmatic way to engage them. It is unknown if PLwDs in Nigeria have a supportive environment for inclusive learning in our great citadels of learning that ought to serve as a template to the rest of the society. This study therefore evaluated the accessibility of public buildings in a Nigerian university.
Method: This cross-sectional survey assessed all the public buildings in the University of Nigeria Enugu Campus (UNEC) using the Americans and Disabilities Act 1990 (ADA) Accessibility checklist for Existing Facilities questionnaire. Data obtained were analyzed using frequency, percentage, mean, standard deviation and chi square. The level of significance was set at 0.05.
Results: A total of 43 public buildings were assessed. Most of the buildings were described as old (n=31, %=72.09), and with storey-design (n=24, %=55.8). Majority of the parking sites did not have a permanently installed sign like the international symbol (n=40 , %=93). Most of the buildings needed a ramp (n=34 , %=79.1) but only few (n=5 , %=11.6) had it. Though newer buildings had better accessibility features (n=8 , %=66.66) than the old ones; overall, there was no significant association between the age of the building and its level of accessibility (X2=1.908, P=0.385). However, there was a significant association between the functionality of the building and accessibility (X2=11.551, P=0.021) as the multipurpose buildings were better accessible than the academic and accommodation buildings albeit poor.
Conclusion: Generally, most public buildings in the institution are poorly accessible to PLwD. The need for inclusive design during the construction of buildings is very essential. Also, restructuring of old buildings for better accessibility is recommended.
Key words: Disability, Ergonomics, University, Building Accessibility.

UTILIZATION AND QUALITY OF SERVICES UNDER TERTIARY INSTITUTIONS SOCIAL HEALTH INSURANCE PROGRAMME (TISHIP) IN ENUGU, SOUTHEAST, NIGERIA: A CROSS-SECTIONAL STUDY

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Introduction: Tertiary Institutions' Social Health Insurance Programme (TISHIP) was launched in Nigerian tertiary institutions in the year 2009. It was designed to meet the healthcare needs of the students' group among other objectives. Despite the availability of TISHIP in the universities in Nigeria, the programme remains poorly utilized. The objective of this study was to access the knowledge, utilization and quality assess of services rendered to the students under the TISHIP in Enugu State.
Method: This was a descriptive cross-sectional study conducted at the University of Nigeria (UNN). Data were collected from 470 students of UNN. Using a multi-stage sample procedure, a semi-structured questionnaire with a Cronbach's Alpha analysis value of 0.844 was adopted. The data were presented in tables with frequencies and percentages, and the correlation was tested using basic linear regression. The t-test was used to examine the difference between the expected and perceived quality of healthcare services provided to students.
Result: The study found that 50.4% of students had heard of TISHIP, which they got from friends/colleagues (45.4%), followed by a school orientation program (43.2%). Approximately 59.3% of respondents stated that they were unaware of the program's operational modalities. Only 44.1% visited the school clinic, despite the fact that 50.8% sought care at a pharmacy/patent medicine shop. The perceived cost of care (46.8%), distance to and from the clinic (26.3%), and knowledge (21.9%) influenced their choices. In the gap analysis, none of the service quality characteristics yielded a positive result, indicating that the desired service quality was not met.
Conclusion: TISHIP awareness was moderate, and knowledge of operational modalities was limited, resulting in low utilization of the program in the institution studied. The participants who utilized the services reported that the services were of poor quality.
Keywords: Health insurance, Tertiary Institution Social Health Insurance Programme (TISHIP), healthcare utilization, quality healthcare services, and health care services.

HEALTHCARE RESOURCE UTILIZATION AND ASSOCIATED COSTS AMONG COVID-19 PATIENTS IN ENUGU STATE, SOUTHEAST NIGERIA.

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Introduction: The huge social, health and economic burden imposed by the outbreak of the COVID-19 pandemic cannot be overemphasized. Increasing healthcare costs have remained the major challenges of the pandemic, above previously planned budgets, leading to crowding out of other essential services. Identifying the utilization of healthcare resources and associated costs is critical to planning for effective management and control of the pandemic. This research aimed at investigating the healthcare resource use patterns and direct medical costs of treatment among COVID-19 patients in UNTH COVID-19 Treatment and Isolation Centre.
Materials and methods: The study adopted an observational cross-sectional study approach based on retrospective collection and analysis of patient-level data who received care at UNTH COVID-19 Treatment and Isolation Centre. Ethical approval was obtained from the Health Research and Ethics Committee of UNTH. Informed consent was not required for this study as it was based on previously collected health service data. Secondary data was extracted from the health facility's medical and financial records using ODK Collect Application. And was analysed using both descriptive and inferential statistics with the aid of Excel and SPSS 20.
Results: A total of 193 patients were confirmed to have COVID-19 infection. Patients with severe symptoms were associated with a higher proportion of resource use when compared to patients with mild symptoms ($p<0.001$). The mean total cost of treatment was $121.2, S.D $171. Cost of medication was the most significant cost for COVID-19 treatment, while hospital consumables had the least cost. COVID-19 patients with severe symptoms were associated with higher healthcare resource use and costs.
Conclusion: The author recommends that the government institutes fiscal policies to improve funding of the health facility to ease the financial impact of COVID-19, especially on the most vulnerable citizens.
Keywords: SARS-CoV-2, COVID-19, healthcare resource utilization, healthcare costs.

CONFERENCE SUBTHEME: PUBLIC HEALTH POLICY RESPONSES AND SYSTEM RESEARCH ON NCDS IN NIGERIA

TITLE: (VIRTUAL) INTEGRATING HEALTH PROMOTION AND SCREENING FOR NON-COMMUNICABLE DISEASES INTO PRIMARY HEALTH CARE: USING VILLAGE HEALTH WORKERS TO INTERFACE BETWEEN COMMUNITIES AND HEALTH CENTRES-RESEARCH PROTOCOL

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Background: The World Health Organisation (WHO) reports that non-communicable diseases (NCDs), (heart disease, stroke, cancer, diabetes and chronic lung disease), are responsible for 74% of global deaths , and more than three-quarters of these occur in low- and middle-income countries (LMICs). In Nigeria, NCDs account for a quarter (24%) of total deaths. Integrating NCDs management into primary health care services is one of the strategic thrusts of the national NCD policy. Village Health Workers (VHWs) have interfaced between the community and primary health facilities in a number of programmes, providing health education and promotion, key household practices. This strategy can be leveraged for the screening of hypertension in the community. The key Implementation problem here is that in rural communities and hard to reach areas, some community members are unable to access the nearest health facilities to utilise basic preventive and screening NCD services. This study hypothesises that the use of VHWs to interphase between communities and primary health care centres will facilitate the integration of NCD management into PHC
Aim: To assess the the early implementation research outcomes of using VHWs to integrate health promotion and screening of non-communicable diseases into primary health care
Methodology*: Study setting:* Implementation setting will be selected rural communities in Anambra and Enugu States, following initial consultation with state and local stakeholders.
Pre-implementation phase: Specific interventions for implementation will be adapted from the state and national guidelines in simple and culturally sensitive language.
Implementation: VHWs will be expected to visit households in communities with pre-packaged information, communication and education (ICE) materials, undertake headlth education of appropraite household members.Screening will include blood pressure measurements, height and weight measurements and random blood sugar testing.Monitoring of the VHWs will be done by health facility staff.Early Implementation Research Outcomes (Acceptability, Adoption, Appropriateness, Feasibility, Implementation cost) will be identified and measured. Detailed plans for publication and dissemination will be outlined in the protocol
Key words: Implementation research, non-communicabel diseases, primary health care, village health workers, Research outcomes

THE PREVALENCE OF LONELINESS AMONG STROKE SURVIVORS IN A POOR RESOURCE COUNTRY

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Background: Loneliness as a specific negative psychological outcome of stroke is noted to be a product of feeling of worthlessness and thus a predictive functional decline and mortality. Loneliness is associated with psychological stress as it causes stroke survivors to lose companionship and encouragements, centers wholly on their inabilities, and diminished interest in the environment. This study was therefore aimed at determining the prevalence of loneliness among stroke survivors in Enugu State.
Methods: This was a cross-sectional study involving 75 (40 male, 35 female) consenting stroke survivors in Enugu, Southeastern Nigeria (Physiotherapy departments and neurological units of the University of Nigeria Teaching Hospital and Enugu State University Teaching Hospital). The three-item short scale UCLA Loneliness Scale was used to measure loneliness among the participants. Data were analyzed using frequency and percentages, Mann Whitney U test. Alpha level was set at $p = 0.05$.
Results: Loneliness was reported by 26.7% of the participants, (that is about 2 in 10 persons). There was a significant difference between marital status and loneliness ($X2=8.366$, $p=0.039$).
Conclusions: The prevalence of loneliness was high among the sampled respondents. This therefore suggests that stake holders involved in the management and rehabilitation of this population should routinely screen stroke survivors for loneliness, in order to help improve their quality of life.

EVALUATION OF THE RENOPROTECTIVE EFFECT OF KOLAVIRON FROM GARCINIA KOLA SEED ON GENTAMICIN – INDUCED NEPHROTOXICITY IN RATS

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Introduction: Kolaviron , a biflavonoid component of Garcinia kola has strong antioxidant properties. The study focused on evaluating the renoprotective effect of kolaviron on Gentamicin intoxicated albino rats.
Material And Methods: Five groups (A, B, C, D and E) of eight rats in each group were used. The Group A (Normal control) were given water and pellet orally while group B (Negative control) were treated with Gentamicin intraperitoneally for 9 days. Group C-E (Positive control, Test 1 and Test 2) received orally 1000mg/kg of Vitamin C, 100mg/kg and 200mg/kg of Kolaviron respectively for 4 days. From the 5th day to the 9th day, the vitamin C and extract administration continued but after 30 mins, 80 mg/kg of Gentamicin was given intraperitonally.
Results: Administration of Gentamicin significantly increased ($p<0.0001$) serum urea (46.73 ± 8.19) and creatinine (210.60 ± 44.97) in the negative control group. Significant reduction was noticed in sodium level (130.30 ± 1.55) ($p< 0.0001$) while significant increase was seen in potassium level (8.00 ± 0.41) ($p<0.0002$). Co-administration of Gentamicin with kolaviron and vitamin C significantly restored the parameters near normal. Test 1 group (sodium 139.50 ± 0.50 ($p< 0.0001$), potassium 5.60 ± 0.10 ($p< 0.0002$), urea 10.63 ± 1.41($p< 0.0001$) and creatinine (76.70 ± 7.07($P < 0.001$)), test 2 group (sodium 143.30 ± 2.49 ($P < 0.0001$), potassium 7.05 ± 0.65 ($p < 0.0002$), urea 10.33 ± 0.79 ($p< 0.0001$) and creatinine 67.55 ± 7.07 ($p< 0.001$)) and positive control group (sodium 142.00 ± 0.41 ($p< 0.0001$), potassium 5.05 ± 0.31 ($p < 0.0002$), urea 9.58 ± 0.69 ($p< 0.0001$) and creatinine 76.63 ± 8.29 ($p< 0.001$)) compared with negative control. Histological observation revealed inflamed glomerulus and tubular necrosis in kidney of rats treated with gentamicin only (Negative control).
Conclusion: This study showed that kolaviron and vitamin C offered significant protection against Gentamicin induced renal nephrotoxicity.
Keywords: Kolaviron, Gentamicin, Nephrotoxicity.

SYNERGISTIC IN-VITRO INTERACTION OF PTEROCARPUS SANTALINOIDES AND ALCHORNEA CORDIFOLA AGAINST GASTRO-ENTERIC PATHOGEN.

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Introduction: Combination of herbal plants for treatment of infections and diseases is as old as man in the practice of folklore medicine Emergency of drug resistance can be overcome by combination of plants with synergistic effect. The aim of this work is to evaluate the interaction between Pterocarpus *santalinoides* and *Alchornea cordifola* combination in the treatment of bacterial infection
Method: The fresh uninfected leaves of Pterocarpus s*antalinoides* and seeds of *Alchornea cordifolia* were collected washed and shade dried. It was pulverized and extracted with methanol. Agar well diffusion assay was used for the susceptibility testing. The MIC and MBC were also tested. The checker board assay was used to determine the synergistic interaction. The enteric pathogens used were *Escherichia coli, Salmonella typhi , Shigella dysenteriae* and *Staphylococcus aureus* which are usually implicated in diarrheoa
Results: The extracts were sensitive to the enteric pathogen with different zones of inhibition. The Minimum inhibitory concentration (MIC) of the extracts against the pathogen ranges between 25mg/ml-50mg/ml and Minimum bactericidal concentration (MBC) ranges between 12.5mg/ml – 25mg/ml. The combined interaction of both extracts shows synergism at various concentration and best at 50:50 against all the enteric pathogen. The synergistic effect was found to have out weight their individual effect with the inhibitory effect to the pathogen far less than MIC's of each of the extracts singly. The fractional inhibitory concentration index of the various combination ratios against the enteric pathogen ranges between 0.17-0.79mg/ml indicating a synergistic effect of the combination against the enteric pathogens tested.
Conclusion: The synergistic activity found between the two extracts, shows a boost in its efficacy and could be seen as a robust microbial therapy for treatment of diarrheoa caused by these enteric pathogens
Key words : *Pterocarpus santalinoides Alchornea cordifolia,* synergistic, Checker board,

ACCENTUATION OF HEPATIC PERIPORTAL MARKINGS: AN ADJUNCT THAT INCREASES THE ULTRASOUND DIAGNOSTIC ACCURACY OF AN INFLAMED APPENDIX – A PILOT STUDY

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Introduction: Diagnosis of inflamed appendix has posed a major challenge in ultrasonography resulting in clinicians relying more on clinical presentation as the most reliable means of diagnosis. Researches have shown that secondary findings in appendicitis can aid in the diagnosis. Findings that bacteria from an inflamed appendix can be transmitted to the portal vein of the liver has necessitated this work. This study is aimed at sonographically assessing changes in hepatic periportal markings as an adjunct to increasing the accuracy of the diagnosis of inflamed appendix.
Materials and Method: This was a cross-sectional observational study involving sixty-four (64) patients conveniently enrolled for the study between May – July 2021 in a private Medical diagnostic center in Enugu state metropolis, Nigeria. A multi-frequency 7.5 - 10 MHz transducer attached to a DC -30, Mindray ultrasound equipment was used on a trans-abdominal transverse graded compression of the right iliac fossa. The inflamed appendix showed a non-compressible target-like structure with a maximum outer diameter of ≥ 6.0mm. Data was analysed using SPSS software version 23. Descriptive and inferential statistics were used to analyse the hepatic periportal appearances and the relationship between the appendix diameter and the level of the portal marking accentuation respectively.
Result: The result showed 31(48.4%) males and 33(51.6%) females with a mean age of 27.91 ± 1.7 years; 51(79.7%) had accentuated hepatic portal markings and 13(20.3%) had none. The majority 25(39.1%) presented with mild accentuated periportal markings, 23(35.9%), and 3(4.7%) presented with moderate and marked accentuated periportal markings respectively. There was a positive correlation between the appendiceal diameter ≥ 6.0 mm and the hepatic periportal markings, ($p < 0.01$).
Conclusion: Accentuation of the hepatic periportal markings can be an adjunct to the primary ultrasound diagnostic criteria of an inflamed appendix, thereby increasing the accuracy of the diagnosis of an inflamed appendix.

ANTI-HYPERTENSIVE ACTIVITY OF FLAVONOIDS FROM *HIBISCUS SABDARIFFA* ON BLOOD PRESURE USING HYPERTENSIVE MALE WISTAR RATS.

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Introduction: Arterial hypertension is one of the leading cardiovascular disorders, (Gunnarsson et al,2020). Flavonoids exerts cardiovasculo-protective effects (Dina *et al*,2019).This study investigated the effect of flavonoids from *hibiscus sabdariffa* on blood prsessure level of hypertensive male Wistar rats.
Materials and Methods: Thirty-five male Wistar rats were purchased and divided into seven groups of five per group. They were allowed access to feed and water for two weeks. Hypertension was induced salt-loading rats with 8% NaCl diet for six weeks. Different concentrations of flavonoids from *hibiscus sabdariffa* were administered to three experimental groups: 50, 100, 200 mg/Kg, Lisinopril,30 mg/kg was administered to positive control while group seven was administered 30mg/kg of lisinopril plus 200mg/kg of flavonoids groups while control group were given feed and water, The feeding lasted for four weeks. Blood pressure levels were measured using Automated tail blood pressure meter .
Results: The result showed that the mean values of systolic (SBP 152.00 ± 2.739 mmHg, 141.20±34.802,F2.967) and diastolic (DBP 105.00±10.100, 95.00±21.943,F4.374) blood pressure after four weeks of administration of flavonoids decreased significantly ($p<0.05$) when compared with its baseline value.
Conclusion: This work has shown that flavonoids from *hibiscus sabdariffa* may cause a reduction in systolic and diastolic blood pressure level and could be an anti-hypertensive agent.
Key words: Flavonoids, Systolic blood pressure, Diastolic blood pressure, lisinopril,Anti-hypertensive.

THE PREVALENCE AND RISK OF MUSCULOSKELETAL INJURIES AMONG PROFESSIONAL AND AMATEUR VIDEO GAMERS.

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Background: Video gaming is an e-sporting and recreational activity associated with several health implications, especially for the musculoskeletal system. Purpose: This study determined the prevalence and risk of musculoskeletal injuries and also the areas of the body that are prone to musculoskeletal injuries among professional(plays esport competitively as a career) and amateur video gamers (plays leisurely with no monetary gains). Method: A total of 65 participants participated in this study consisting of 35.4%(n= 23) professional and 64.4%(n=41) amateur video gamers. The study was a cross-sectional design consisting of two levels of video gamers. It made use of TheExtendedNordic Musculoskeletal Questionnaire (NMQ-E)(Cronbach α coefficient=0.78) and The Dutch Musculoskeletal Questionnaire (DMQ)(Cronbach α coefficient=0.83). Pearson's correlation and descriptive analysis were used. **Results:** There was a higher prevalence of musculoskeletal injuries in professional video gamers as 92.65%(n=22) of professionals reported presence of musculoskeletal injuries while 72.50%(n=29) of amateurs reported presence of musculoskeletal injuries. Three major risk factors for musculoskeletal injuries were identified: bent, stooped, and twisted posture of the neck, trunk, wrists/hands, repetitive movements of the wrists, hands, and fingers, and prolonged static posture adopted by video gamers. Conclusion: Musculoskeletal injuries are prevalent among professional and amateur video gamers. Therefore, there is a need for video gamers to be aware of the risk factors that could predispose them to musculoskeletal injuries and make necessary lifestyle changes.
Keywords: musculoskeletal injuries, video gamers, computer system

KNOWLEDGE AND ATTITUDE OF PREGNANT MOTHERS TOWARD DANGER SIGNS DURING PREGNANCY- A CASE STUDY OF ATTENDEES AT ANTENATAL CLINIC IN UWANI GENERAL HOSPITAL

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Introduction: Nigeria's maternal mortality rate is still among the highest in the world. Lack of awareness of obstetric warning signs causes delays in seeking and getting professional care, which raises maternal mortality. Therefore, this study aimed to assess women's knowledge and attitude toward danger signs during pregnancy and the associated knowledge factors.
Materials and Methods: A simple random sampling technique was used to select 177 women attending the antenatal clinic at Uwani General Hospital Enugu in a cross-sectional survey design from June to September 2022 using a pre-tested self-structured questionnaire. The Cronbach's alpha coefficient of 0.97 was obtained. Descriptive and inferential statistics were used to analyze the data. A woman was classified as having good knowledge if scored > 50% of total questions assessing knowledge level and poor knowledge if scored ≤ 50%. A mean value score > 2.5 on questions bordering on attitude implied a positive attitude and ≤ 2.5 implied a negative attitude.
Results: The majority 174 (98.3%) had good knowledge of danger signs during pregnancy. The commonest source of information was through health workers 173 (97.7%). High fever (96.6%), and abdominal pain (96.6%) were the common danger signs. The commonest complication was the death of an unborn child (97.7%). The overall, attitude was positive 3.190.45. Influence of health workers and antenatal follow-up 166 (93. 8%) were the commonest factors associated with the level of knowledge. Those, who had good knowledge were associated more with those that had a positive attitude (p = 1.000). The knowledge of danger signs was significantly associated with educational and marital status (P=1.000).
Conclusions: Knowledge and attitude towards pregnancy danger signs were good. Health workers and antenatal follow-ups were the determinants of this knowledge hence, information provision during antenatal visits is very vital and must be encouraged.
Keywords: Knowledge, Danger signs, Attitude, Pregnancy, Antenatal visits,

PREVALENCE AND CORRELATES OF SARCOPENIA AMONG OLDER ADULTS WITH KNEE OSTEOARTHRITIS

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Introduction: Ageing is associated with a wide range of changes and decline in the body system and structure. As people age, they tend to lose functionality due to series of age-related degeneration which includes but not limited to sarcopenia. Sarcopenia refers to a decline of muscle strength and degenerative loss of skeletal muscle mass and function often resulting in frailty, disability and mortality. Previous studies revealed an association between sarcopenia and osteoarthritis but the conclusions remain controversial and the occurrence of sarcopenia within osteoarthritis patients still needs to be elucidated.
Materials and Methods: This cross-sectional study involved 100 older adults with knee osteoarthritis in three tertiary hospitals in Enugu, Nigeria. The SARC-calF questionnaire was used to assess sarcopenia while the Western Ontario and McMaster University Osteoarthritis Index was used to evaluate pain, stiffness, and physical function of the participants. Other participants characteristics were assessed using a self-structured questionnaire. Pearson's chi-square test and Pearsons correlation were used to test the association between variables of interest.
Results: Greater number of the participants 90(90%) had no suggestive signs of sarcopenia while the rest 10(10%) had suggestive signs of sarcopenia. Significant associations were observed between sarcopenia and age (X^2=13.147, p=0.001), gender (X^2 7.709, p=0.005) and body mass index (X^2=41.868, p=<0.0001). A significant positive moderate correlation was observed between sarcopenia and pain (r=0.403, p=<0.0001), stiffness (r=0.301, p=0.002) and physical function (r=0.456, p=<0.0001).
Conclusion: Sarcopenia was significantly associated with some participants demographic and clinical characteristics. This necessitates an increased awareness of these findings to improve the health status and quality of life in older adults. Sarcopenia scales should be incorporated during rehabilitation of older adults with knee osteoarthritis to ensure early detection and management thereby curtailing its effects and promoting the outcome of rehabilitation.
Keywords: Sarcopenia, Knee, Osteoarthritis

IDENTIFICATION OF POTENTIAL PATHOGENIC HELMINTHS FROM POULTRY AND PIGGERY DUNGS.

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Introduction: Helminthes are worm-like parasites that survive by feeding on a living host to gain nourishment and protection, sometimes resulting in illness of the host. They have been known to be a major problem of public health, affecting farmers, animal rearers etc.
Objective: This study was conducted to determine the prevalence of pathogenic helminthes from poultry and piggery dungs in Enugu.
Material and Methods: In comprehensive study to identify some patogenic helminths from some indwellers of Amechi, Abakpa, Obiagu, and Akwatta, in Enugu State. Fecal samples from 40 poultry and piggery dungs respectively were collected and analyzed in the standard parsitology laboratory equipment.
Results: It was observed that, the prevalence rate of helminthes were more in the chicken dungs (87.5%) than in piggery dungs (67.5%) with hookworms infestations rankng highest 22(33%), followed by Cryptosporidium pavum 13(19.5 %) and the least was Dipyllobotrium latum1(1.5%) whereas helminthes identified from piggery dungs, Cryptosporidum pavum ranked highest 10(24%) followed by Entamoeba coli 9 (21. 6%)and Hookworm 1 (2.4%) was one of the least identified.
Statistics: Chi square test revealed no significant difference (p>0.05) in the infection rates between poultry and piggery dungs.
Conclusion: This study revealed that helminthes are common parasites of poultry and piggery dungs.
Keywords: Poultry dungs, piggery dungs and pathogenic helminthes,

PHYSIOTHERAPY CLINICAL LEARNING ENVIRONMENT OF A TEACHING HOSPITAL IN THE SOUTH-EAST OF NIGERIA.

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Introduction: Learning Environment (LE) impacts students' level of academic success. Good LE can be associated with an effective curriculum for effective teaching and learning. Clinical students' perception of their LE impacts their knowledge and skills for practice. This study aimed at ascertaining the quality of physiotherapy clinical training at the University of Nigeria Teaching Hospital (UNTH) Ituku-Ozalla, considering its strengths and limitations.
Materials and Methods: by a descriptive case study design, the clinical (fourth and fifth year) Students' Perception of clinical LE of the physiotherapy department of the Hospital was assessed by the Dundee Ready Education Environment Measure (DREEM) questionnaire. Data were analyzed with the SPSS software version 23, by descriptive and inferential statistics with a P-value set at 0.05 and a confidence interval of 95%. Out of 144 questionnaires distributed to the students, 103 (72%) were fit for analysis; 47 males (45.6%) and 56 females (54.4%).
Results: By the DREEM global score of 118.34/200 (59.17 %), the students were more positive than negative perceptions of their LE. However, those aged 29 years and above (though the minority, 1.9% of the students) and 5th years students described the LE as with 'Plenty of problems, and 'not a nice place having many issues that need changing', respectively.
Conclusion: Overall, the strength of the LE was that the students recommended the clinician's level of knowledge, teaching methodology and aims, communication and interpersonal skills, and the learning encouraging atmosphere. The challenges to the LE were student vulnerability to stress and poor psychosocial well-being, especially amongst 5th-year students and students aged 29 and above. The observed challenges to the LE and their consequences to learning can be averted by policies and efforts for a student-centred approach to learning, for alleviation of academic-related stress, improvement of physical LE, and device efficient student support system
Keywords: Physiotherapy, Education, Clinical, Nigeria, Students, atmosphere.

AFRICAN AI POLICY DEVELOPMENT: A SYSTEMATIC REVIEW

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Introduction: Artificial Intelligence (AI) is a rapidly developing field that has the potential to revolutionize many areas of life, including healthcare, education, and agriculture. African countries are increasingly recognizing the potential benefits of AI and are developing policies to guide its adoption and implementation. This systematic review aims to examine the current state of AI policy in Africa and identify gaps and challenges.
Methodology: A systematic literature search was conducted using electronic databases such as PubMed, Scopus, and Google Scholar, as well as relevant grey literature sources such as government reports and policy documents. The search was limited to studies published between 2010 and 2022. The inclusion criteria were studies that focused on AI policy in African countries. A total of 34 studies were included in the review.
Results: This review identified several themes in AI policy development in Africa. The first theme was the need for investment in AI research and development. Many African countries lack the necessary data infrastructure, technical expertise, and regulatory frameworks to support the development of AI. The second theme was the need for ethical and responsible AI. For example, South Africa's AI strategy includes principles of ethical AI. The third theme was the need for AI policy to be context-specific. African countries face unique challenges in adopting and implementing AI, and policies must take into account the social, cultural, and economic contexts of each country. The fourth theme was the need for collaboration and partnerships. Many African countries are forming partnerships and collaborations to promote the development of AI.
Conclusion: AI policy development in Africa is still in its early stages, and there are significant challenges to overcome, such as the lack of infrastructure and technical expertise. However, African countries are making progress in developing AI policies that are context-specific, ethical, and responsible.
Keywords: Artificial Intelligence (AI), Africa, Policy

EFFECT OF DOLUTEGRAVIR-BASED DRUG COMBINATIONS ON THE LEVEL OF MEDICATION ADHERENCE AND VIRAL LOAD AMONG ADOLESCENTS LIVING WITH HIV IN RESOURCE-LIMITED SETTING: A PRE-POST DESIGN.

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Introduction: The use of antiretroviral drugs among HIV-infected adolescents has been challenged with poor medication adherence, leading to an unsuppressed viral load and ultimately to drug resistance. Recently, dolutegravir, an integrase strand transfer inhibitor, has been approved for use in adolescents with HIV, but evidence on medication adherence and viral load suppression is limited. This study determined the effect of Dolutegravir-based drug regimens on the level of medication adherence and viral load among treatment-experienced adolescents.
Methods: A longitudinal pre-post design study was done among adolescents living with HIV at a paediatrics clinic in Nigeria after obtaining ethical clearance. Assessment of medication adherence and viral load testing was done before and at six months of transitioning to dolutegravir-based regimens. McNemar-chi-square was used to determine the effectiveness of the drug on adherence and viral load suppression. Multivariate logistic regression analysis was performed to control for confounders and determine the predictors of medication adherence and viral suppression.
Results: The mean age of the participants was 14.7 years (SD = 3.2), and 53.3% were males. The mean duration of ART use was 10.3 years (SD = 3.2). Six months after transitioning to dolutegravir, there was a significant increase in viral suppression and medication adherence from 67.6% to 90.7% and 62.6% to 92.9% respectively, among the treatment-experienced adolescents. Viral suppression was thirteen times higher among respondents with good medication adherence as compared to those with poor medication adherence (AOR=13.24, CI=3.25 – 53.90).
Conclusion: Dolutegravir is effective in improving medication adherence and viral suppression among Adolescents living with HIV. Thus, the need to transition eligible adolescents to dolutegravir to sustain better treatment outcomes.
Keywords: Dolutegravir, Adolescents, Drug Adherence, Viral Suppression

COMPLIANCE WITH 2016 WHO'S ANTENATAL CARE MODEL AND ITS ASSOCIATED FACTORS AMONG PREGNANT WOMEN IN ENUGU STATE UNIVERSITY TEACHING HOSPITAL PARKLANE, ENUGU

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Introduction: Antenatal care (ANC) makes a difference for a healthy pregnancy. The study assessed the level of compliance with 2016 WHO's ANC model and its associated factors among pregnant women receiving ANC at Enugu State University Teaching Hospital, Parklane, Enugu.
Materials and Methods: A cross-sectional survey design was adopted. Sample size of 201 was calculated from a total population of 420 using Krejcie and Morgan sample size determination table. Participants were purposively recruited between January and June 2020. A validated researchers-developed questionnaire which was pilot-tested for reliability (0.79) using Cronbach Alpha test was used for data collection. Data were subjected to descriptive statistics of frequencies, percentages, means, and standard deviation. Tests of association of variables were done using Chi-square at 0.05 level of significance.
Results: Less than half (42.5%) of the participants, initiated ANC contacts during their first trimester. Major factors influencing their frequency of ANC contacts were personal choice (2.78±1.13) and financial challenges (2.53±1.12). Cost of services (3.08±0.72), and long-awaited time at the clinic (2.58±1.12) were associated with their non-compliance with 2016 WHO's ANC model. Participants' age and occupation were significantly associated (p=0.00) with compliance with 2016 WHO's ANC guidelines. Mothers aged ≥ 25 years (aRR: 3.24, 95% CI 2.52 – 9.57), were at least two-folds more likely to make > 8 number of ANC contacts relative to adolescent mothers; mothers who are civil servants or self-employed (aRR: 2.83, 95% CI 1.29 – 4.92), were twice more likely to have > 8 number of ANC contacts compared with students.
Conclusions: Participants' level of compliance with 2016 WHO's ANC model was less than optimal. Cost of services and long-awaited time at the clinic were major factors associated with non-compliance with 2016 WHO's ANC model. Hence, the need for sensitization to enable dissemination of information about the importance of each component of ANC.
Keywords: Compliance; 2016 WHO's Antenatal Care Model; Associated factors; Pregnant women

ASSESSMENT OF SERUM ELECTROLYTES LEVELS OF OBESE INDIVIDUALS IN ENUGU METROPOLIS

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Introduction: Obesity is a public health disorder characterised by an excessive accumulation of fat by affected individuals. The excess fat leads to degradation in a lot of body functions. This study assessed the serum electrolytes levels of obese individuals in Enugu metropolis.
Methods: Seventy subjects of ages 20–65 years were recruited for this cross sectional study with thirty three obese subjects as test while controls were twenty overweight and seventeen normal weight subjects. Anthropometric indices were measured and body mass index (BMI) calculated. Blood pressure measurements were carried out twice using an automatic sphygmomanometer (CareTouch #PSA-AC, Brooklyn N.Y 11220, 2016) and average result recorded. 5mls of blood was collected from each participant for the determination of serum electrolytes by ion selective electrode method, using a sensa core electrolyte analyser. Data was analysed using SPSS version 25 and results express as mean ± SD.
Results: The result shows a significant increase ($P < 0.05$) in mean ± SD of systolic blood pressure (SBP) (136.87 ± 17.47, 121.65 ± 14.06, 117.82 ± 6.42), diastolic blood pressure (DBP) (78.91 ± 8.83, 72.80 ± 8.40, 71.58 ± 7.80), BMI (33.09 ± 3.87, 27.62 ± 1.33, 21.55 ± 1.80) and a significant decrease ($P < 0.05$) of potassium (3.91 ± 0.42, 4.07 ± 0.24, 4.33 ± 0.35) in the test and control subjects respectively. There exist a positive correlation between SBP and DBP($r= 0.512$), SBP and sodium($r= 0.563$), SBP and potassium($r= 0.511$), DBP vs sodium($r=0.575$) and a negative correlation between DBP vs potassium($r= -0.654$), sodium vs potassium($r= -0.605$) of the test subjects.
Conclusion: This study suggests that Obesity predisposes an individual to electrolyte variations, hence, the need to check these electrolytes values in obese individuals regularly.
Keywords: Obesity, Serum electrolytes, Blood pressure, Enugu, Electrolyte variations.

DETERMINANTS AND EQUITY OF INSECTICIDE-TREATED BED NETS UTILIZATION AMONG WEST AFRICAN WOMEN

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Background: The burden of malaria in West Africa is high. Despite being effective in preventing malaria, the determinants and equity of insecticide-treated net (ITN) among women in West Africa is under researched. This study assessed the determinants of the non-use of ITN and equity of ITN use among women in West Africa.
Methods and materials: Data from the most recent Demographic and Health Surveys (DHS) in 13 West African countries were used in this study (n = 100,199). We included women who gave birth in the five years preceding the surveys in the study. We adjusted the data for sampling weight, stratification, and cluster sampling design. The outcome variable was ITN use. The independent variables were women's socio-demographic, household, and health-related characteristics. The association between the outcome and predictor variables was evaluated with Pearson's chi-squared test and complex sample logistics regression. We set the statistical significance at a p-value < 0.05. The equity of ITN use was analyzed using ADePT software version 6.0., and presented as concentration index and Lorenz curve.
Results: The weighted prevalence of non-use of ITN among women is 48%. Age 25-34 (AOR:1.12, CI:1.07-1.18, $p < 0.001$), age 35-49 (AOR:1.30, CI:1.22-1.39, $p < 0.001$), living in rural areas (AOR:1.13, CI:1.04-1.22, $p < 0.001$), unemployment (AOR:1.43, CI:1.35-1.50, $p < 0.001$), being in the middle (AOR:1.03, CI:0.96-1.11, $p < 0.001$), richer (AOR:1.37, CI:1.25-1.49, $p < 0.001$), and richest (AOR:1.58, CI:1.43-1.75, $p < 0.001$) quintiles, being a female head of household (AOR:1.13, CI:1.06-1.20, $p < 0.001$), participatory healthcare decision-making (AOR:1.12, CI:1.07-1.17, $p < 0.001$), primiparity (AOR:1.14, CI:1.07-1.22, $p < 0.001$), multiparity (AOR:1.07, CI:1.02-1.12, $p = 0.005$), less than four antenatal visits (AOR:1.18, CI:1.13-1.23, $p < 0.001$), using unskilled antenatal provider (AOR:1.48, CI:1.34-1.63, $p = 0.020$), and financial inaccessibility (AOR:1.17, CI:1.13-1.23, $p < 0.001$) increased women's likelihood of non-use of ITN. The concentration index is negative and above the line of equality (concentration index = -0.0328).
Conclusions: The use of ITN among women needs to improve in West Africa. Appropriate interventions should prioitize the rich. The study highlights other individual and contextual factors that might improve ITN use.

CHALLENGES, COPING STRATEGIES AND SOCIAL SUPPORT AMONG CANCER PATIENTS IN TERTIARY HEALTH INSTITUTION, SOUTHEAST, NIGERIA

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Introduction: Cancer is a life threatening disease commonly seen in African context as 'death sentence'. It is usually associated with varied challenges requiring social support from everybody related to the victim. This study determined the challenges, coping strategies and social support among cancer patients in the oncology clinic of University of Nigeria Teaching Hospital Ituku-Ozalla Enugu State,
Materials and Methods: **This was a descriptive cross-sectional study. A purposive sampling was used to select 124 cancer patients.** Data were collected using a researcher developed questionnaire on the patients' challenges, coping and social support. It has with a Cronbach's alpha reliability index of 0.8. Data was analyzed using frequency, percentages, mean and standard deviation and presented in tables.
Results: The result showed that majority (92.7%) of the patients had challenges of severe pains and altered body image and long waiting hours to be seen by the doctors (91.9%). Majority adopted positive coping strategies of fervent prayers and religious activities (3.61±0.68), having a fighting spirit (3.14±1.14), dieting and maintaining a healthy lifestyle (3.57±0.70) and acceptance of the illness and its consequence (3.11±0.96). The major source of social support was discovered to come from family (3.70±0.60) with the highest form being the emotional support (3.66±0.60) and informational support (2.69±1.05) being the least.
Conclusion: majority of the patients face challenges but positively cope with them due to the forms of support and the sources available, therefore the study recommend that cancer patients should be given all the support they can get from all and sundry, as this goes a long way in affecting not just their coping strategies but also help in reducing the challenges they face.
Keywords: Challenges, Coping strategies, Social support, Cancer patients.

PERCEPTION, ATTITUDE AND ACCEPTABILITY OF COVID-19 VACCINATION AMONG NON-MEDICAL UNDERGRADUATE STUDENTS IN A PUBLIC UNIVERSITY IN NIGERIA.

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Introduction: The outbreak of coronavirus disease 2019 (COVID-19) caused a significant challenge to health systems globally, with resounding psychological, social, and economic consequences. However, the development of Covid-19 vaccines brought optimism for combating the COVID-19 pandemic, but its success has been greatly dependent on global vaccine availability and people's willingness to accept and receive the COVID-19 vaccine.
Objective: To determine the perception, attitude, and acceptance of Covid-19 vaccination among non-medical undergraduate students of a public university in Nigeria.
Materials and Methods: A quantitative descriptive cross-sectional survey design was adopted for the study using a sample of 403 undergraduate students from a total population of 2,621 recruited through the purposive sampling technique. Data was collected online using Google Forms with a researcher-developed questionnaire, reliability of 0.914 was obtained using Cohens Kappa. The inferential statistics– Chi-Square Test of Independence was used to test for the association between the knowledge of acceptance of Covid-19 Vaccination
Results: There is a high level of knowledge of Covid-19 vaccination among the respondents 259(64.3) and the major sources of information were social media 255(98.4%) and television 93(35.9%). Almost half 183(45.4%) rated their risk of having Covid-19 to be very low. The overall attitude toward Covid-19 vaccination was mostly positive (69.8%), however, acceptance of Covid vaccine among respondents 37(9.2%) was very low. There was a significant relationship that existed between that acceptance of the Covid-19 vaccination and other variables, knowledge ($P = 0.005$), perceptions ($P < 0.001$), and attitudes ($P < 0.001$).
Conclusions: There was a negative perception, negative attitude, and low acceptance of Covid-19 vaccination among non-medical undergraduate students in Enugu State. The study suggested that awareness campaigns should be organised for students on COVID-19 vaccines and dispel myths, rumours, misinformation and concerns about the vaccines.
Keywords: Covid-19, vaccination, Perception, attitude, acceptability, non-medical undergraduate students, Nigeria

VIRTUAL PRESENTATION: PREVALENCE OF *CANDIDA* SPECIES AMONG ADULT DIABETIC PATIENTS ATTENDING DIABETIC CLINIC IN UNIVERSITY OF NIGERIA TEACHING HOSPITAL ITUKU-OZALLA, ENUGU

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Introduction: Diabetes mellitus (DM) is one of the four major types of non-communicable (NCD) diseases. It is a metabolic condition that predisposes people to fungal infections especially those associated with *Candida* species because of its immunosuppressive effects on the patients. The study investigated the isolation, characterization, prevalence and resistance profile of *Candida* species in adult patients attending diabetic clinic of the University of Nigeria Teaching Hospital Ituku-Ozalla, Enugu.
Materials and Methods: A clean-catch midstream urine samples was collected from 306 diabetic patients comprising of 146 males and 160 females with mean age of 55.5±9.48 from February 2022 to June 2022. Samples were subjected to standard Microbiological procedures. Antifungal susceptibility profile was performed using disc diffusion techniques.
Results: Of the 306 urine samples analyzed, 32 (10.5%) yielded different species of *Candida* including *C. krusei* 18 (56.2%), *C. albicans* 10 (31.2%), and the least was *C. glabrata* 4 (12.5%). Females had a higher prevalence of 24 (75.0%) and 8 (25.0%) were males. Age group 47-57 recorded highest prevalence of 14 (43.8%) and the least was age group 69-79 (18.8%). Of the 10 isolates of *C. albicans*, 6(60.0%) were resistant to Fluconazole, 4(40.0%) were resistant to Nystatin and 2(20.0%) were resistant to Miconazole, Ketoconazole, and Amphotericin B respectively. Of the 18 isolates of *C. krusei*, 14 (77.8%) were resistant to Fluconazole, 8(44.4%) were resistant to Miconazole and Nystatin respectively while 6(33.3%) were resistant to Ketoconazole and Amphotericin B. The four isolates of *C. glabrata* were all resistant to all the antifungal used.
Conclusion: Overall prevalence of Candida species was 10.5%. *C. krusei* was the most predominant species in our study. Antifungal-resistance of *Candida* species is on the increase as displayed by *C. glabrata*. Early detection, species identification and susceptibility profile are necessary for better management of diabetic patients.
Keywords: *Candida* species, Candiduria, CHROMagar Candida, Diabetes mellitus

CONTROLLING THE RISING CARDIOVASCULAR HEALTH ISSUES AMONG NIGERIAN UNIVERSITY ACADEMICS: ADMINISTRATIVE HONESTY AND SELF-DISCIPLINE AS THE ELUDING SOLUTIONS

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Introduction
Cardiovascular (CVS) disorders are among the leading non-communicable diseases posing a serious global health challenge today. These rising CVS health issues seem to be more common among university academics, especially in Nigeria, due to the round-the-clock nature of their work. The prevailing approaches to controlling these CVS issues do not seem to be working, as the problems continue threatening the lives of academics. Nonetheless, a more sincere adherence to the prescriptions of university regulatory authorities by various level administrators of the universities and self-discipline of the academics towards CVS health and well-being requirements are the simple but unexplored panacea to this problem. Against this background, this paper discussed administrative honesty and self-discipline as the eluding solutions to controlling the rising CVS health issues among Nigerian university academics.
Materials and methods
Literature review, anecdotes, and the researcher's observations informed the discussion content.
Results
The paper: discussed the concepts of CVS health, administrative honesty, and self-discipline; related CVS health issues with administrative dishonesty and lack of self-discipline; stated areas of administrative dishonesty contributing to CVS health issues among university academics; outlined areas of lack of self-discipline contributing to CVS health issues among university academics; and situated administrative honesty and self-discipline as the eluding solutions to the rising CVS health issues among university academics.
Conclusion
As university academics, endeavor to be mindful of your CVS health in all you do and say the truth always, for the truth will set you free from all dangers, including the threat of CVS health-related deaths.
Keywords: Cardiovascular health issues; Nigerian university academics; Administrative honesty; Self-discipline; Eluding solutions

ASSESSING THE HEALTH-RELATED QUALITY OF LIFE (HRQOL) AMONG PATIENTS WITH TYPE-2 DIABETES ACCESSING CARE AT A TERTIARY HEALTH FACILITY IN SOUTHEAST NIGERIA, USING THE EQ-5D-5L INSTRUMENT

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Introduction/Objective: Quality of life measurement is essential to enhance the efficiency of disease control, especially for chronic diseases such as diabetes. This study aimed to assess the HRQoL among Type-2 diabetic patients as well as the determinants of their health status at a tertiary health facility in Nigeria.
Method: A cross-sectional study was conducted on 220 diabetic patients attending the Enugu State/Parklane University Teaching Hospital, (ESUTH) Enugu, Nigeria. The EQ-5D-5L questionnaire instrument was used to evaluate the patients' self-reported health status around 5 dimensions (5D) and a Visual Analogue Scale (VAS) among patients waiting to see a doctor. Regression models were performed to assess associations between variables to determine predictors of health status. Ethical clearance was obtained from the ESUTH ethical review board.
Result: 202 diabetic patients successfully completed the questionnaire, with a mean age of 62.5 years (± 11.84), who were mostly female (63%). Majority of the respondents (68.5%) had co-morbidities, mostly cardiovascular diseases. The mean EQ-VAS and utility valuations of respondents were 65.21 and 0.78 respectively. Most of the respondents did not have problems with mobility and self-care compared to usual activities, pain/discomfort and anxiety/depression. More than 50% of the respondents had little to no problem with walking while 65.5% had little to no problem with self-care. Usual activities and pain/discomfort had respondents with more severe issues. The education level of respondents and their employment status independently and significantly predicted EQ-VAS by 0.029 and 0.041 respectively, while education positively predicted utility for the EQ-5D utility index by 0.033.
Conclusion: The study findings indicate a relatively poor health status among the diabetic patients in the study setting. Education and employment positively impacted on the utility valuations/HRQoL) of diabetic patients. Anxiety/depression was not predicted by sociodemographic or clinical characteristics of diabetic patients while pain/discomfort is the major problem of most diabetic patients.
Key words: *Health Related Quality of Life; Type 2 Diabetes; EQ-5D-5L instrument; EQ-VAS*

COST DRIVERS OF PUBLICLY PROVIDED AND PRIVATELY PROVIDED CATARACT TREATMENT IN ENUGU STATE, SOUTHEAST NIGERIA

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Introduction: Cataract is a leading cause of blindness and visual impairment in the world. It is particularly high in the developing countries, and expected to remain a major cause of blindness in the coming years. Cataract disease leads to a serious direct and indirect financial costs. This study was designed to understand the cost drivers in publicly provided and privately provided cataract treatment in health facilities in Enugu State, Southeast Nigeria.
Materials and Methods: This was a cross sectional descriptive survey design study carried out in selected eye clinics in Enugu State. The study population includes cataract patients receiving treatment in public and private health facilities. A structured questionnaire was used to collect data from the patients. The dependent and independent variables were cross-tabulated. Concentration index was used to divide the respondents into socioeconomic quartile. Analysis was carried out at 95% confidence interval. Reliability test was measured at Cronbach alpha score of 0.72, SPSS and Stata were statistical packages used for data analysis.
Results: Our study found that drivers of cost in publicly provided and privately provided cataract treatment include, registration/card fee, consultation fee, Laboratory test, Imaging, Surgery, wound dressing, admission and drugs costs. Total cost of treatment in the previous month's visit excluding surgery in the public health facilities was ₦18,435.48, while the total cost of treatment in the current visit in the public facilities was ₦8,171.42. Total cost of surgery in the previous month's visit and in the current visit in the public facilities were ₦8,7142.86 and ₦90,000.00 respectively. Total cost of treatment in the private health facilities in the previous month's visit was ₦30,308.70. Total cost of treatment in the current visit in the private facilities was ₦7,129.17.
Conclusion: The study show that cost of treatment in both public and private health facilities for cataract treatment are high and pose serious challenge to the people particularly the poor and the vulnerable groups.
Key words: Cost Drivers, Cataract treatment, Southeast, Nigeria



PHYSICAL PRESENTATION: FACTORS HINDERING EARLY ANTENATAL BOOKING AMONG PREGNANT WOMEN ATTENDING ANC IN UNIVERSITY OF NIGERIA TEACHING HOSPITAL ITUKU-OZALLA, ENUGU.

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Introduction: Antenatal care is the care given to pregnant mothers to timely identify and mitigate pregnancy related problems that can harm the mother and the fetus and it is considered as a key maternal service in improving a wide range of health outcomes for women and new born. Aim: The study determined the factors hindering early antenatal booking among pregnant women attending antenatal clinic (ANC) in University of Nigeria Teaching Hospital, Ituku-Ozalla, Enugu.
Materials and Methods: A descriptive survey design and a structured questionnaire that yielded a Cronbach alpha coefficient of 0.670 guided the data collection from a sample of 180 out of 320 pregnant women attending ANC in University of Nigeria Teaching Hospital.
Results: Findings from the study revealed that the majority (61%) of the pregnant women booked their antenatal early and all perceived ANC as highly important. The two major institutional factors hindering early antenatal booking were distance to the health facilities offering the ANC services (3.0 ± 0.6) and unsubsidised ANC services in the available health facilities (3.0 ± 0.6). The major maternal factor was young maternal age (3.4 ± 0.8). The major economic factor recorded was high cost of transport (3.5 ± 0.7). The main socio-cultural factor revealed was lack of social support (2.9 ± 0.5). There was significant association between age of the pregnant women and the timing of antenatal booking ($P = 0.16$ at $P < 0.05$ significance level). Conclusion: Although the researcher observed that a relatively good number of the respondents booked ANC early, it is recommended that efforts should be targeted towards improving early ANC booking in Enugu state by addressing the identified hindering factors in this study.
Key words: Early antenatal booking, Antenatal Clinic, Pregnant woman, Hindering factors.

KNOWLEDGE AND USE OF CHORHEXIDINE GEL IN UMBILICAL CORD CARE AMONG POSTPARTUM WOMEN AT POLY GENERAL HOSPITAL, ENUGU SOUTHEAST NIGERIA: A CROSS SECTIONAL STUDY

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Background: Sepsis in the first week or two of life is a major cause of newborn deaths. People from diverse cultural backgrounds use different substances for umbilical cord care. Evidence-based umbilical cord care practices have large potential to lower infant morbidity and mortality linked to infection. This study investigated knowledge and use of chlorhexidine gel for umbilical cord care.
Methods: A cross-sectional descriptive survey was employed among 191 postpartum women at the Poly General Hospital Asata, Enugu, selected through simple random sampling. A researcher-developed questionnaire with a Cronbach alpha of 0.78 was used for data collection.
Results: Half 101(52.1%) of the respondents had poor knowledge of chlorhexidine gel use in umbilical cord care. There was no significant association between educational status and knowledge of chlorhexidine gel use in umbilical cord care among the participants ($p = .072$). Only 89 (46.6%) had ever used chlorhexidine gel for umbilical cord care while 49 (25.7%) used chlorhexidine gel for their last child. Parity was not significantly associated with use of chlorhexidine gel ($p = .736$).
Conclusion: There is poor knowledge of chlorhexidine gel use for umbilical cord care among the participants. Use of chlorhexidine gel in this population is still suboptimal. Healthcare providers should continue to provide information on chlorhexidine gel use in umbilical cord care in order to optimize its knowledge and use.
Key words: Chlorhexidine gel, Knowledge, Postpartum women, Umbilical cord care.

EXAMINING MULTIPLE AND MIXED FUNDING FLOWS TO PRIMARY HEALTHCARE FACILITIES IN LAGOS STATE, NIGERIA.

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Introduction: The study described the types, attributes, and effects of multiple and mixed funding flows to publicly owned primary healthcare (PHC) facilities in Lagos State, Nigeria.
Methods and materials: The study adopted a qualitative approach involving semi-structured interviews with policymakers (n = 12), service providers (n = 8) and ward development committee (WDC) leaders (n = 4) between January and February 2022. A topic guide covering purchasing of PHC services and multiple funding flow to PHC facilities was used to conduct the interviews. Data were analysed thematically.
Results: The current funding flows to PHC facilities included out-of-pocket payment (OOP), salaries, overhead, capital budget, drug revolving fund, state health insurance scheme (SHIS) capitation, and donations. The future funding flow was direct facility funding and capitation from basic healthcare provision fund (BHCPF). Current flows were perceived to be inadequate. Staff salaries, SHIS-capitation, and OOP were more predictable than other flows. Unpredictable overhead and capital transfers from state and local governments constrained access to and volume of funds to PHC facilities. Contrary to policy, the State Primary Health Care Board did not manage staff salaries. Cash transactions and weak financial information disclosure hindered accountability of OOP and facility overhead. Low enrolment and few empanelled PHC facilities constrained SHIS-capitation flow. Although BPHCF implementation is delayed, the use of separate bank accounts would limit the flexibility of resource pooling in facilities. PHC providers dedicated health workers to SHIS-clients and shifted clients and costs to more predictable fund flows. Nevertheless, multiple funding enabled PHC to access more funds, expand the scope of services, improve the quality of services, and increase client patronage.
Conclusions: Multiple funding flows have both positive and negative consequences for PHC providers. Strategies to improve PHC financing must address the contradictory incentives associated with multiple funding flow and undesirable behaviours of providers.

EFFECTS OF INFANT POSITION ON MUSCULAR RESPONSES AND ENERGY COST OF LOCOMOTION DURING INFANT CARRYING IN ADULT FEMALES

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Aim: During infant carrying tasks, the position of the infant on the trunk is usually determined by the mother's levels of comfort and convenience. Load positions on the trunk have been linked to varying responses in other situations. Determining the responses associated with load positions during infant carrying tasks will provide useful knowledge for ergonomic interventions in the maternal population. This study evaluated the effects of infant position on trunk muscle activities, energy cost of locomotion and Rate of Perceived Exertion (RPE) in adult females during front and back infant carrying methods (ICMs).
Materials and Methods: In this repeated measures study, 32 females (18-35 years) performed four 10-minute infant carrying tasks with an infant dummy placed in different trunk positions [Upper Back (UB); Lower Back (LB); Upper Front (UF); Lower Front (LF)]. For the upper and lower trunk categories, the dummy's center of mass was placed above and below the anterior or posterior aspects of the participants' T9 spinal level, respectively. During each task, activities of the Erector Spinae (ES), Rectus Abdominis (RA), Right and left external oblique (Rt EO and Lt EO) muscles were measured via electromyography (EMG). The energy cost of locomotion was assessed by calculating the Physiological Cost Index (PCI) while RPE was investigated with a Borg's scale of perceived exertion. Data were analyzed with descriptive and inferential statistics of independent T-test at an alpha level of 0.05.
Results: The mean age and body mass index of the participants are 21.0±2.5years and 21.1±3.8kg/m^2. Comparing upper vs. lower back and upper vs. lower front ICMs , there were no significant differences ($p>0.05$) in all studied variables except for RPE which yielded a significant difference ($p=0.020$) between the upper and lower back ICMs. Participants perceived the upper back ICM to be more exerting than the lower back ICM.
Conclusion: The position of the infant load on the trunk during back and front ICMs does not affect the activities of the trunk muscles (ES, RA, LT EO and RT EO) and energy cost of locomotion in adult females.
Keywords: infant carrying, front, back, trunk muscles, energy cost

KNOWLEDGE AND PERCEPTION OF BREAST CANCER AND PRACTICE OF ITS PREVENTIVE MEASURE AMONG THE FEMALE UNDERGRADUATES OF THE UNIVERSITY OF NIGERIA, ENUGU CAMPUS

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Introduction: Breast cancer remains a major health problem and it accounts for 26% of all malignancies in the female population. However, little is known about the knowledge and practice of preventive measures for breast cancer among female university students in Nigeria, the population which represents a considerable number of young females in the country. This study aimed to assess the level of knowledge and perception of breast cancer and the self-reported practice of its preventive measures.
Materials and Methods: This cross-sectional descriptive study surveyed a total of 354 eligible female undergraduates. A researcher-designed validated questionnaire with Cronbach's alpha (∞) coefficient value of 0.829 was used for data collection. Perception of breast cancer treatment outcome and practice of preventive measures of breast cancer were evaluated using 4 points Likert scale and a mean value of ≥ 2.5 was considered as either good perception or good practice. The level of Knowledge was determined by assigning 1 to a correct response and 0 to for incorrect response. Percentage scores of ≥70%, 50 - 69%, and <50% represent good, moderate, and poor levels of knowledge respectively. Pearson correlation analysis was used to determine the linearity between knowledge and self-reported preventive measures. The P-value was set at $p<0.05$.
Result: A few of the respondents (78, *22.0%)* had a good knowledge level *and* the perception of respondents towards breast treatment outcome was positive (3.01 ± 0.41). The self-reported practice of breast cancer preventive measures was poor (2.05 ± 0.41). knowledge was moderately negatively related to self-reported preventive measures (r= -0.377, p =<0.01).
Conclusion: Knowledge of breast cancer and the practice of its preventive measures were poor among the respondents under study. Therefore, there is a need for intensive educational programs which will encourage the adoption of health preventive measures for breast cancer.
Keywords: Breast cancer, Knowledge, Perception, Treatment outcomes, Preventive measures, Female Undergraduates

ANTIULCER POTENTIALS OF CRUDE EXTRACTS OF *CHROMOLAENA ODORATA* AGAINST ETHANOL-INDUCED GASTRIC ULCER MODELS.

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Introduction: This study investigates the antiulcerogenic potentials of crude aqueous and methanol extracts of *Chromolaena odorata* against ethanol-induced gastric ulcers in experimental albino rats.
Materials and Methods: Six groups of 4 animals each were used for the experiments. Gastric ulcers were induced in the animals by the oral administration of a single dose of 1 ml/kg of absolute ethanol after a 5-day prior treatment with a low dose (150 mg/kg body weight) and high dose (300 mg/kg body weight) of the crude aqueous and methanol extracts of *C. odorata*. Cimetidine (a standard anti-ulcer drug) at 100 mg/kg body weight served as the positive control groups. The negative control groups received no treatment prior to ulcer induction. The animals were sacrificed under anaesthesia, the stomachs excised and the ulcers scored. Ulcer index (UI) and percentage ulcer protective index (UPI) were calculated and compared statistically. The stomach tissues were promptly fixed in 10% neutral buffered formalin and processed into paraffin blocks and sections for histological analysis.
Results: The extracts afforded varying degrees of protection against both ulcer models ranging from approximately 14% to 72%. The aqueous extracts appeared to afford better protection against ethanol induced gastric ulcers (average UPI of 71.5% across the aqueous extract treated groups) than the methanol groups (average UPI of 20.1 %) with reference to the negative control groups.
Conclusion: Crude extracts of *C. odorata* may possess antiulcer effects against ethanol-induced gastric ulcers in albino rats.
Keywords: Ulcers, Antiulcer, *Chromolaena odorata*, Phytochemicals, Pharmacology, Antioxidants

HAEMOGRAM, FIBRINOGEN AND C-REACTIVE PROTEIN AS CLINICAL BIOMARKERS IN THE DIAGNOSIS OF MALARIA

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Background/Aim: Accurate diagnosis of malaria is difficult using the most widely available technique (microscopy) and the prevalence may be underestimated. In this study, haemogram, fibrinogen and C-reactive protein (CRP) were investigated as biomarkers in the diagnosis of malaria.
Materials and Methods: Ninety-five (95) children infected with malaria and 50 apparently healthy control subjects (age and gender-matched) were recruited for this study after obtaining their consent. Full blood count, fibrinogen and CRP were determined using standard methods. The procedures followed in this study were in accordance with the ethical standards of University of Nigeria ethics committee on human experimentation.
Results: There were significant increase ($p>0.05$) in TWBC (3.65 ± 1.8 x109/L) and platelets (228.4 ± 113.5 x109/L) when compared with control (7.97 ± 2.5 x109/L) and (315.5 ± 53.6 x109/L) respectively; and a significant decreases ($p < 0.05$) in fibrinogen (324.03 ± 59.87 mg/dl) and CRP (21.52 ± 35.59 mg/L) when compared with control (224.74 ± 34.88 mg/dl) and (2.43 ± 0.97 mg/L) respectively. The parasite density (2.06 ± 0.97 x103/µl) showed positive correlation with fibrinogen ($p < 0.01$, $r = 0.461$),CRP ($p < 0.01$, $r = 0.232$) and TWBC ($p < 0.01$, $r = 0.192$) and negative correlation with platelet ($p < 0.01$, $r = -0.312$).
Conclusion: These could serve as effective biomarkers in diagnosis and in assessing malaria severity.
Keywords: Diagnosis, Haemogram, Fibrinogen, C-reactive protein, Malaria

LEVEL OF KNOWLEDGE, ATTITUDE, AND BELIEFS TOWARDS CHRONIC LOW BACK PAIN AMONG CLINICAL STUDENTS AT THE UNIVERSITY OF NIGERIA

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Introduction: Chronic low back pain (CLBP) is a prevalent health issue that requires proper management by healthcare providers. The attitudes and knowledge of these providers significantly influence the quality of care that patients receive. This study aims to determine the level of knowledge, attitudes, and beliefs towards CLBP among clinical students at the University of Nigeria.
Materials and Methods: Ten research questions were formulated to guide this study. The Health Care Providers' Pain and Impairment Relationship Scale (HC-PAIRS) and the Neurophysiology of Pain Questionnaire (NPQ) were used to measure attitudes and beliefs about CLBP, and knowledge of pain, respectively. The questionnaires were distributed to 360 clinical students. A convenience sampling technique was used to select the participants. Mean and standard deviation were used to analyse the data, and chi-square was used to assess the differences between the level of knowledge of pain and attitude and beliefs towards CLBP.
Results: The study had a 95.8% response rate ($n = 347$), with the majority female students ($n = 212$, 61.1%). The mean correct NPQ score was 3.14 (±1.69), with no significant difference among the departments ($p = 0.391$). The mean scores for HC-PAIRS were 64.1 (±9.9), with a significant difference among the clinical students in the medical and health departments ($p = 0.029$). Knowledge scores had no association with scores for attitudes and beliefs toward patients with CLBP.
Conclusion: This study found a deficit in knowledge of pain among clinical students, with a low correlation with attitudes and beliefs toward patients with CLBP. And improving the knowledge of pain might result in a change in these attitudes and beliefs. This study highlights the importance of incorporating better pain education into the curriculum of clinical students to improve their knowledge of pain and attitudes toward patients with CLBP.
Keywords: *Chronic low back pain, Clinical students, Knowledge, Attitudes, Health care providers*

NON-ADHERENCE TO SELECTED SELF-CARE ACTIONS AND ITS DETERMINANTS AMONG ADULTS WITH TYPE 2 DIABETES MELLITUS IN A TERTIARY HOSPITAL IN ENUGU STATE NIGERIA

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Introduction: Non adherence to diabetic management regimen is possibly the most common reason for poor health outcomes among diabetic patients and adherence behavior of diabetic patients in Southeastern Nigeria has been understudied. The study determined the prevalence of non-adherence to medication, self- monitoring of blood glucose (SMBG), clinic visits and the associated factors among out-patient type 2 adult diabetics at a tertiary hospital in Enugu State Nigeria.
Materials and Methods: Using a descriptive cross-sectional design, 200 adult diabetic patients were purposively selected. Researcher-developed questionnaire (r = 0.90) was tool for data collection. Analysis was done in proportions, percentages and logistic regression (alpha level was P=0.05).
Results: Respondents' mean age was 60.1±10.6; 88% (n=176) were married and females were 63.5% (n=127). Overall prevalence of non-adherence to drugs was 24.5% that varied from 26.9% to 11.8% depending on drug combinations. Majority (n=115, 57.5%) of the respondents had no glucometer for SMBG at home; 86.1% (n=155) on oral hypoglycaemic agents did not monitor their blood glucose level 2-3 times weekly; 78.9% (n=15) on injection insulin combined with tablets did not monitor their blood glucose level at least once daily. Non-adherents to clinic visits were 49.0% (n=98). Age <50 years (P= 0.006) and being married (P=0.025) were associated with drug non-adherence. Cost of transportation (P=0.000), discouraging attitudes of health workers (P=0.003) and late commencement of clinic activities (P= 0.006) were associated with clinic visit non-adherence.
Conclusion: There was non-adherence to diverse self-care activities among diabetic patients in this study therefore factors that contribute to non-adherence should be addressed by healthcare providers. Latest trends and innovation in diabetic treatment will be a futile effort if patients do not adhere to their regimen.
Keywords: Diabetic management; Non-adherence; Self-care actions; Type 2 diabetes.

PROSTATE CANCER EDUCATIONAL INTERVENTION AS A STRATEGY FOR ENHANCING KNOWLEDGE OF MEN IN SELECTED HOSPITALS IN CROSS RIVER STATE, NIGERIA

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Background: Prostate Cancer (PC) is a common cause of cancer-related death among men. In developing countries, available evidence indicates that factors responsible for high PC-related mortality rate include poor knowledge and low uptake of screening practices.

Methods: A quasi-experimental pretest-post-test research design was used. The study was conducted in two randomly selected General hospitals in Cross River State. The hospitals were General hospitals, Ogoja and Ugep. A sample of 220 men aged between 40 and 70 years was purposively selected for the study. An educational training package on knowledge and screening uptake of PC with four teaching sessions of 60 minutes each was administered weekly to participants. Men's knowledge was evaluated at four time points: baseline (PT1), immediately after intervention (PT2), three months (PT3), and six months (PT4) using a validated structured questionnaire (r = 0.89). Data analysis was done with appropriate statistical tests in SPSSs software (version 25) at a significance level of p<0.05.

Result: Majority 107(51%) of the respondents were between 40-49 years. The result revealed that post-intervention knowledge in post-test 1, 2 and 3 was significantly higher than the pre-intervention knowledge (p<0.001). Also, knowledge at post-tests 2 (p= 0.008) and 3 (p=0.020) were significantly higher than post-test1 knowledge. There was no significant difference between knowledge at post-test 2 and post-test 3 (p=0.804).

Conclusion: The prostate cancer-specific educational intervention improved the knowledge of men about prostate cancer. Therefore, it was recommended that there should be an initiation of aggressive and regular prostate cancer education/teaching of men in hospitals, schools, churches and traditional gatherings by nurses and other health care providers. It should be mandated by policy that men over the age of 40 participate in health awareness and prostate cancer prevention programs.
Keywords: Prostate cancer, educational intervention, Knowledge of men,

EXPERIENCES WITH MENSTRUATION AND MENSTRUAL HYGIENE MANAGEMENT AMONG PUBESCENT GIRLS IN SEMI-URBAN AND RURAL SECONDARY SCHOOLS IN ENUGU STATE NIGERIA.

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Introduction: The rate of poor menstrual management, absenteeism and school drop-out associated with menstruation and Menstrual Hygiene Management (M&MHM) has remained high among school girls, especially in low and medium-income countries. Over a decade of quantitative research and interventions have failed to meet the age-sensitive menstrual needs of adolescents. The objectives to of this study were to explore the menstrual experiences of pubescents; examine the psychosocial issues associated with the experiences; understand the meaning of the experiences; and co-construct a mid-range model that explained the meaning of the experiences with pubescents.
Methods: Constructivist grounded theory design was used to explore the experiences of 30 purposively recruited pubescents. Data collection was conducted through questionnaires, interview guides, observations, group discussions and in-depth interviews. Open and focused coding was conducted using the Open to Axil coding paradigm. Selective coding was used to identify the core theme. Data verification by participants and in the literature as well as triangulation were done.
Results: The median age of participants was 14 years, the median age at menarche was 13. Four themes emerged from the data they include: Menstruation is a rite of passage involving maturing into womanhood, transitioning reproductively and becoming self-disciplined; Menstruation experiences involve dealing with menstrual realities including, menstrual euphoria, pains, discomfort and limitation; Menstrual influencers and enablers including financing menstruation, informing menstruation and providing menstruation environment impacts the bio psychosocial responses to (M&MHM); and Experiences with menstruation and menstrual hygiene management can be explained as menstrual ambivalence involving the feeling of eustress and distress.
Conclusion: Menstrual ambivalence model explained the relationship in the physical, social and psychological processes associated with menstruation and menstrual hygiene management among pubescents in schools. Based on the relationship, the menstrual ambivalence model was proposed.
Keywords: Menstruation, Menstrual Hygiene Management, Constructivist Grounded Theory, Pubescents

ASSOCIATION OF UPPER RESPIRATORY TRACT BACTERIA CO-INFECTIONS AMONG PERSONS LIVING WITH HIV ON COMBINED ANTI-RETROVIRAL THERAPY (cART).

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Introduction: Pathogenic bacteria colonization of upper respiratory tract can induce bloodstream infections which increases disease burden in HIV-infected persons. The goal of this study was to determine opportunistic bacteria colonization of the upper respiratory tract among HIV-infected persons on cART.
Methods: This was a cross sectional study that enrolled HIV-infected persons that were on cART. The participants were selected based on presence pharyngitis and mouth odour from a tertiary hospital. The study adopted consecutive sampling method. Those that completed a structured questionnaire and had CD_4 cells ≤500 cells/µl, had throat swab collected, and analyzed bacteriologically. The data obtained were subjected to statistical analysis and significance level at P≤0.05
Results: A total of 152 HIV-infected persons on cART were enrolled for this study. They comprised of 31.6% males (48/152) and 68.4% (104/152) females with mean age of 38.9±12.9 year-olds. A prevalence rate of pathogenic bacteria isolates was 68.4% (104/152, the females accounted for 44.7% (68/152). The age group of 31-40 and 41-50 had the highest bacterial isolates of 21.7% and 19.7% respectively, while traders, teachers, and healthcare workers accounted for 30.2%, 14.5% and 13.5% bacterial colonization. The duration of cART showed that those of 5-years and 6-10 years had 35.5% and 19.1% of bacterial isolates, respectively. The bacteria isolates obtained were *Staphylococcus aureus, Streptococcus pyogenes, coagulase-negative Staphylococcus aureus, Escherichia coli, Streptococcus pneumonia, Klebsiella pneumonia and Haemophilus influenza*. These bacteria isolates exhibited multi-antibiotics resistant pattern and all were resistant to vancomycin and ciprofloxacin.
Conclusions: The findings in this study showed that HIV-infected persons on cART harbor opportunistic bacteria in the upper respiratory tract with limited antibiotics for treatment and/or prophylaxis. This may increase the burden of HIV infections and result in high mortality.
Keywords: cART, opportunistic bacterial infections, vancomycin, ciprofloxacin

ESTABLISHMENT OF CLINICAL INDICATION BASED DIAGNOSTIC REFERENCE LEVEL AND EVALUATION OF POST-OPTIMIZATION IMAGE QUALITY FOR COMMON CT EXAMINATIONS IN ENUGU METROPOLIS.

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Keywords: Computed Tomography, CT Dose Optimization; Clinical Indication Based; Diagnostic Reference levels.
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Introduction The clinical application of computed tomography (CT) in diagnostic imaging has markedly increased over the recent years with associated concerns about the radiation risks to the patient. There is need to obtain good diagnostic quality images at the lowest possible radiation dose. The study objectives were to establish DRLs for adult Computed Tomography (CT) common examination based on Clinical indications and assess diagnostic CT image quality obtained after optimization.
Materials and methods This cross sectional study was conducted in 5 CT units in Enugu. A total of 2490 and 205 subjects were selected using convenient sampling method in the pre-optimization and post-optimization phase respectively. The median values and percentiles of CTDI/DLP was calculated using descriptive statistics. Student t-test was used to make comparison between the measured doses and reported data. The consistency of subjective image quality evaluation was performed with the Kendall coefficient of concordance and the objective image quality assessment was performed using ImageJ software v.2.10 ($p<0.05$).
Results The clinical diagnostic reference levels (CTDI/DLP) for head were 43/907, 43/879, 43/1689, 34/969, and 28/995 for trauma, CVA, metastasis, infection and seizure respectively, while that of the abdomen/pelvis were 16/2723, 12/2011, 16/2011, and 15/2047 for liver disease, malignancy, mass and urography respectively. The clinical diagnostic reference levels for chest (CTDI/DLP) were 13/763 and 13/1531 for lung disease and mass respectively. Qualitative and quantitative assessment of image quality showed that all post-optimization images were rated acceptable and showed high SNR values. There was dose reduction of 4%-66% in the post optimization phase.
Conclusion There is need to optimize current CT protocols in Enugu as higher CTDI and DLP values were obtained when compared to other national and international studies especially in the chest and abdomen/pelvis region. The image qualities pre- and post-optimization were comparable with associated reduction in patient radiation dose.

ASSESSMENT OF BACTERIAL ISOLATES AND THEIR ANTIBIOTICS SENSITIVITY PATTERNS AMONG PRIMARY SCHOOL CHILDREN WITH ASYMPTOMATIC BACTERIURIA IN ENUGU, NIGERIA.

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Introduction: Increased incidence of drug resistant uropathogens is attributed majorly to asymptomatic bacteriuria infections. This study was designed to determine the prevalence and antibiogram of bacteriological agents on asympotmatic bacteriuria among primary school children in Enugu, Nigeria.
Materials and Method: This was a cross-sectional descriptive survey involving apparently healthy primary school children aged 6 to 12 years. A pre-tested, care-giver administered questionnaire was used to obtain information about the participants including age and sex. Following a clinical examination, a sample of spot mid-stream urine was collected from each participant for urine culture.
Results: A total of 450 apparently healthy primary school children were enrolled into the study. One hundred and ninety five (43%) were males while 255 (57%) were females. The age range was 6 to 12 years with a mean ± standard deviation (SD) of 10.13 ± 1.81 years. Ninety (20%) of the 450 urine samples had bacterial growth but only 73 (16.20%) had colony counts $\geq 10^5$ colony forming units (CFU)/ml and thus qualified as cases of asymptomatic bacteriuria. A total of 57 bacterial isolates were obtained with *Escherichia coli* being the most predominant organism followed by *Staphylococcal aureus.* All the bacterial isolates were sensitive to ciprofloxacin and levofloxacin while cotrimoxazole and nitrofurantoin were the least sensitive antibiotics.
Conclusion: Eschericia coli was the most frequently occurring organisms amongst those with significant bacteriuria. Ciprofloxacin had the best antibacterial activity against the study isolates. The high level of resistance of isolates to antibiotics was found among commonly used oral antibiotics and thus the antibiotic resistance of these isolates could be attributed to abuse and/or inappropriate use of antibiotics in Nigeria.
Keywords: Asymptomatic bacteriuria, Primary school children, Antibiotics sensitivity pattern.

SYNERGISTIC IN-VITRO INTERACTION OF PTEROCARPUS SANTALINOIDES AND ALCHORNEA CORDIFOLA METHANOL EXTRACTS AGAINST GASTRO-ENTERIC PATHOGEN.

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Introduction: Combination of herbal plants for treatment of infections and diseases is as old as man in the practice of folklore medicine Emergency of drug resistance can be overcome by combination of plants with synergistic effect. The aim of this work is to evaluate the interaction between Pterocarpus *santalinoides* and *Alchornea cordifola* combination in the treatment of bacterial infection
Method: The fresh uninfected leaves of Pterocarpus sa*ntalinoides* and *Alchornea cordifolia* were collected washed and shade dried. It was pulverized and extracted with methanol. Agar well diffusion assay was used for the susceptibility testing. The MIC and MBC were also tested. The checker board assay was used to determine the synergistic interaction. The enteric pathogens used were *Escherichia coli, Salmonella typhi , Shigella dysenteriae* and *Staphylococcus aureus* which are usually implicated in diarrheoa
Results: The extracts were sensitive to the enteric pathogen with different zones of inhibition. The Minimum inhibitory concentration (MIC) of the extracts against the pathogen ranges between 25mg/ml-50mg/ml and Minimum bactericidal concentration (MBC) ranges between 12.5mg/ml – 25mg/ml. The combined interaction of both extracts shows synergism at various concentration and best at 50:50 against all the enteric pathogen. The synergistic effect was found to have out weight their individual effect with the inhibitory effect to the pathogen far less than MIC's of each of the extracts singly. The fractional inhibitory concentration index of the various combination ratios against the enteric pathogen ranges between 0.17-0.79mg/ml indicating a synergistic effect of the combination against the enteric pathogens tested.
Conclusion: The synergistic activity found between the two extracts, shows a boost in its efficacy and could be seen as a robust microbial therapy for treatment of diarrheoa caused by these enteric pathogens
Key words: *Pterocarpus santalinoides Alchornea cordifolia,* synergistic, Checker board,

MICROBIAL AGENTS OF URINARY TRACT INFECTION AND ANTIBIOTIC SUSCEPTIBILITY PATTERN OF ISOLATES AMONGST DIABETIC PATIENTS ATTENDING UNIVERSITY OF NIGERIA TEACHING HOPITAL, ITUKU-OZALLA, ENUGU STATE, NIGERIA

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Introduction
Diabetic patients could be prone to urinary tract infection (UTI). Antibiotic resistance is increasing. This study aimed at determining the prevalence of UTI, causative agents and their antibiotic susceptibility pattern amongst diabetic patients attending diabetic clinics at University of Nigeria Teaching Hospital (UNTH) Ituku-Ozalla, Enugu State, Nigeria.
Materials and methods: This cross-sectional study investigated 160 randomly selected diabetic patients (80 males, 80 females) with signs and symptoms of UTI attending diabetic clinics at UNTH Ituku-Ozalla, for UTI from September 2019 to April, 2020. Ethical clearance, informed consents, were obtained. Early morning midstream urine sample was collected from each patient volunteer in sterile urine bottle. The urine samples were examined using standard microbiological methods. Demographic information of the patients were obtained using questionnaires. Face content validation was carried out on the questionnaires by three experts in Medical laboratory Sciences.
Results: A total of 33 (20.6%) of the patients were positive. Females recorded higher prevalence for UTI 27.5% than males 13.8% ($p < 0.05$). Age group 31-40 years ranked highest in prevalence for UTI 66.7% ($p < 0.05$). *Escherichia coli* isolates recorded highest 14 (38.9%), Coagulase Negative Staphylococci (CONS) and *Candida* spp 7 (19.4%) each, *Streptococcus* spp 3 (8.3%), *Klebsiella* spp and *Staphylococcus aureus* 2 (5.6%) each, *Proteus* spp 1 (2.8%). Gram positive isolates showed highest susceptibility to streptomycin (100%), ciprofloxacin and gentamycin (91.7%) each. Gram negative isolates showed highest susceptibility to gentamycin and amoxicillin (76.5%) each.
Conclusion: Periodic screening of diabetic patients for UTI, antibiotic susceptibility tests, are advocated.
Key words: Microbial agents, Urinary tract infection, Diabetic patients, Antibiotic Susceptibility Pattern, UNTH,

ASSESSMENT OF NURSES' INVOLVEMENT IN HEALTH RESEARCH AND POLICY MAKING AT A FEDERAL TEACHING HOSPITAL SOUTH EAST NIGERIA

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Introduction: Nurses account for a significant proportion of the health-care workforce in most countries; however, they are marginally represented in policy decision-making. The aim of the study was to assess nurses' involvement in health research and policy making at a Federal Teaching Hospital in Nigeria.
Materials and methods: A cross-sectional design was adopted by using 305 nurses. Data collection was done by means of a validated questionnaire with cronbach alpha of 0.89. Data were analyzed descriptively by using frequencies, percentages, means, and standard deviations.
Results: The findings revealed that 217 (71.1%) of the respondents had been involved in research activity; however, only 36 (16.6%) had participated in a research study after school. The result also revealed that only 72 (23.6%) of the respondents had been involved in health policy decision-making in the hospital. Educational qualification did not have any influence on their involvement with research and policy development. Majority of the respondents strongly agreed that lack of relevant knowledge and skills (3.83 ± 0.89); inadequate organizational support (3.67 ± 0.75); and professional dichotomy (3.50 ± 0.71) were hindrances to being involved in research activities and health policy decision-making. The result revealed that organization support(3.93 ± 6.69), having interest in politics(3.85 ± 6.59), mentoring in research (3.78 ± 2.09), higher education in nursing (3.77 ± 2.09) will enhance their involvement in policy making and research.
Conclusion: Nurses have not been adequately involved in research and policy development. Findings revealed organizational and individual factors as barriers to nurses' involvement in the research and policy-making process.
Keywords: Health research, nurses' involvement, policy formulation

THERMOTHERAPY AS A TREATMENT FOR CONGESTIVE HEART FAILURE A META ANALYSIS

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Introduction: The effect of thermotherapy on congestive heart failure a meta analysis
The meta analysis in this research is necessary so as to be able to present enough justifying evidence to involve this intervention in the management of congestive heart failure. Heart failure research is more advanced than other areas of thermotherapy.
Materials and Method: For this meta analysis five articles were reviewed. These articles were selected based on the fact that the subjects for the articles passed through proper diagnosis by qualified medical practitioners and were certified fit to pass through thermotherapy for the given period. The procedure for the thermotherapy is that individuals were immersed in water up to their neck where they remain at rest in controlled temperature of 88degrees to 89 degrees Fereinheit. The duration of immersion is 6 to 8 minutes and gradually increased every few days, applied every other day. The bath water contains chloride salt of sodium, calcium and free carbonic acid. Using heat therapy, topical manual therapy is an ancient approach to the treatment of congestive heart failure . Currently, many studies have supported this, it can be dry heat or water immersion therapy.
Result: In a study conducted in 2020 in Finland, it was found that after series of treatments: 1. people were able to walk and climb stairs more easily and 80 percent of bed bound patients were able to be more active and move around without much discomfort. 2. percentage of blood ejected by the left ventricle improved significantly. 3. the walls of blood vessels throughout the body became more healthy and flexible, allowing the arteries to dilate with easy heart beats. 4. both diastolic and systolic blood pressures decreased. 5. enlarged hearts decreased in size towards normal. 6. free radicals which is linked to severe heart failure decreased. 7. mental and physical quality of life improved. In another study where 65 patients were followed for 5 years, the subjects had 31 percent less cardiac event than the control. . In another study 12 infants 1-4 months old were treated for 5 minutes 5 times a week for 4 weeks, it was found that afterwards, 3 of the infants still needed surgery and the other nine had had their hole in the heart healed. In a study in which group of subjects were exposed to sauna, 5 times a week for 4 weeks, left ventricular ejection fraction increased from 24+/-7% to 31+/-9% and left ventricular end diastolic dimension decreased from 66+/-6mm to 62+/-5mm.
Conclusion: thermotherapy is a formidable adjunct in the treatment of congestive heart failure
Key words: heart failure, thermotherapy, disability index, non communicable disease.

THE PERCEPTION, ACCEPTABILITY AND WILLINGNESS TO PAY FOR RTS,S MALARIA VACCINE AMONG WOMEN OF CHILD BEARING AGE IN ENUGU METROPOLIS.

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Introduction: Malaria is a major public health problem associated with high morbidity and mortality globally. Many studies have been conducted with the aim of getting a potential vaccine that can be used to reduce malarial transmission. RTS,S/AS01 malaria vaccine is a novel vaccine currently deployed for malaria control and its awareness and cost have inhibited the utilization and uptake of the vaccine. The aim of this study was to determine the perception, acceptability and willingness to pay for malaria vaccine (RTS,S), among women of child bearing age in Enugu metropolis.
Materials and methods: This was a descriptive cross sectional study that was conducted among 400 consenting women at post natal clinics in Enugu metropolis. Contingent valuation method was used to estimate willingness to pay (WTP) for vaccine among the women. Inferential statistics using Chi-Square test, Independence t test and Fishers Exact Test were done to ascertain relationship among variables while the Principal Component Analysis (PCA) was used to generate the socioeconomic index based on home assets. Level of significance was set at 5% CI.
Results: The findings showed that 63.2% (253) of the respondents were aware of malaria vaccine. The majority of the respondents (92.5%, 370) readily accepted to give the vaccine to their children and wards. Majority (80%, 322) of the respondents was willing to pay for the malaria vaccine and the average maximum amount the participants who were willing to pay was less than a thousand naira. The predictors of willingness to pay were the educational status (P=0.010, OR = 2.002; CI: 1.180- 3.397), socioeconomic status (p=0.001, OR = 1.592; CI: 1.206 – 2.102), and number of children in the household (p=0.002, OR = 0.663; CI: 0.471- 0.851).
Conclusion: The level of awareness/perception, acceptability for malaria vaccine among households in Enugu metropolis was high however the average WTP amount N1022 equivalent to 2.5USD was low.
Keywords: Malaria, Vaccine, Willingness to pay, Perception and Acceptability

ARE THE PSYCHOSOCIAL AND PHYSICAL DISABILITIES OF STROKE SURVIVORS AGEING RELATED?

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Abstract.
Most stroke survivors, advanced in age are encumbered by physical and psychosocial disabilities such as motor impairments, balance dysfunctions, depression, activity limitation, participation restriction etc. These disabilities also characterize ageing as seen among older adults. It is therefore not known if the post-stroke disabilities are due to ageing or intrinsic neurological deficits. This study sought to know if the physical and psychosocial disabilities of stroke survivors are due to ageing or due to stroke specific impairments.
Ethical Consideration: Ethical approval was sought and obtained from the Health Research Ethics Committee of the University of Nigeria Teaching Hospital, Enugu, Nigeria. Participants were informed about the research and duly signed informed consent obtained before their participation in the study.
Material & Methods: This was a cross-sectional study with a matched design comparing selected physical and psychosocial attributed between stroke survivors (SS) and their age- and sex-matched apparently healthy older adults (ASMAHOA). Physical attributes such as functional ability (FA), participation, balance and motor function (MF) and psychosocial variables such as depression, self-esteem, and self-efficacy were assessed using validated instruments. Data obtained were analysed using descriptive statics and paired t-test. Level of significant was set at $\alpha = 0.05$. A total of 34 SS and 34 ASAMAHOA participated in this study
Results: 19 (55.9%) males and 15 (44.1%) females in each group with a mean age of 69.02±5.55 years and 68.89±5.40 years respectfully. Stroke survivors had significantly ($p<0.05$) lower scores compared to ASAMAHOA (SS vs ASAMAHOAl) on FA (24.65±8.57 vs 44.56±8.36), MF [upper-limb (68.62±28.24 vs 97.09±15.03), lower-limb (50.71±25.14 vs 72.74±8.40)], self-esteem (63.18±15.42 vs 77.94±7.20) and self-efficacy (47.82±25.48 vs 88.65±17.94), but a significantly higher depressive symptoms (13.53±8.23 vs 10.32±4.30).
Conclusion: Stroke survivors experience significantly greater disabilities than their age- and sex-matched apparently healthy older adults. Therefore, post-stroke disabilities are not primarily due to ageing.
Keywords: Stroke, Disability, Neuro-impairment, Ageing

STRESS LEVEL AMONG CAREGIVERS IN THE MANAGEMENT OF FRACTURE PATIENTS, SOUTH EASTERN NIGERIA

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Introduction: Care-giving is a combination of multi-faceted factors, made up of psychological, social and physical components, which likely can cause them stressed, burden and depression; affecting the clients health management prognosis.
Materials and Methods: Ethical approval was sought and obtained and Stress levels of caregivers attached to fracture in-patients from University of Nigeria, Teaching Hospital Enugu (UNTH), National Orthopaedic Hospital Enugu (NOHE), Alex Ekwueme Federal University Teaching Hospital Abakiliki (AEFUTH), Princeton Orthopaedic Awka, Apex Orthopaedic Hospital Awka, and University of Port-Harcourt, Teaching Hospital (UPTH)participated were surveyed using questionnaire and Zarit Burden Stress Interview (ZBI) Scale. Data was descriptively analyzed using SPSS version 21.0
Results: Findings showed the age of the 300 caregivers as 21-60years. 145 (48.3%) men and 155 (51.7%) women. 96(32%) single, 184 (51.3%) married, 6 (2.0%) divorced, 11 (3.7%) widowed, 3(1.0%) missing. 3(1.0%) no formal education, 26(8.7%) FSCL, 142(47.3%)SSCE, 125(41.7%) BSc. 77 (25.67%) participants were from UNTH. 64 (21.33%) NOHE. Fifty (16.67%) from Princeton Orthopaedic Hospital, Awka, and 49 (16.33%) from Apex Orthopaedic Hospital, Awka. Thirty (10.0%) were from AEFUTH Abakiliki and UPTH respectively. Caregivers burdens: mild, moderate and severe 12.3, 27. 0, 60.7 respectively. Cross tabulation reported inverse proportional relationship between stress level and care length. Medical bills cost and caregivers' stress levels correlation reported a weak Pearson's r positive correlation, r = .27. Relationship between Patients' medical bill cost and stress is significant ($p<0.05$). Higher expenditure reported higher and severe caregivers stress (M = 2.28, SD = 1.37) representing the gross financial burden on caregivers and stress level (M = 3.15, SD = .61). Study showed a weak positive correlation between the patients' medical bill cost and Caregiver stress.
Conclusions: Caregivers stress exist with tremendous effects on prognosis of therapists management on the clients. Hence, age and experiences be considered in selecting candidates as caregivers.
Keywords: Stress, Caregivers, Fracture, Patients, Nigeria

ASSESSMENT OF KNOWLEDGE AND PRACTICE OF PARENTS ACCOMPANYING THEIR CHILDREN TO CHILDREN OUTPATIENT CLINIC, UNTH, ENUGU TOWARDS IMMEDIATE MANAGEMENT OF TOOTH AVULSION

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Introduction: Tooth avulsion is the complete displacement of a tooth from its socket in the alveolar bone as a result of trauma. It is a public health challenge and can have a significant impact on an individual's overall health and well-being. The immediate management is reimplantation. Hence, this study assessed the knowledge and attitude of parents accompanying their children to children outpatient (CHOP) clinic, University of Nigeria Teaching Hospital Ituku-Ozalla towards immediate management of avulsed tooth.
Materials and Methods: This was a cross-sectional study of 217 parents accompanying their children to Children Outpatient (CHOP) Clinic, University of Nigeria Teaching Hospital (UNTH) Ituku-Ozalla. Data on sociodemographic profile, knowledge, practice and experience regarding immediate management of tooth avulsion was collected. Data was analyzed using SPSS version 26.0. Chi square test was conducted and $P< 0.05$ was considered significant.
Results: There were 83(38.2%) males and 134(61.8%) female study participants and 172(79.3%) are married.Their age ranged from 18 to 50 years and many 164(75.6%) had tertiary education. Eighty 98(45.2%) have received information on tooth avulsion and friends 32(32.7%) were the main source of information. Only 20(10.2%) knew that reimplantation of tooth into the socket was the immediate treatment of an avulsed tooth. Also, 116 (53.5%) parents believe that primary (milk) tooth should be reimplanted. Upto 80 (36.9%) did not know the transport medium for an avulsed tooth and few 50 (23.0%) knew that the best time to reimplant an avulsed tooth is within 30 minutes after the trauma. There was significant association ($p=0.01$) between being married and having knowledge of immediate management of avulsed tooth
Conclusion: There is poor knowledge of immediate management of avulsed tooth indicating the need for creating awareness in the study population.
Keywords: Tooth avulsion, management, parents

SATISFACTION WITH AND PERCEPTION OF PHYSIOTHERAPY TREATMENTS AMONG ADULTS WITH KNEE OSTEOARTHRITIS IN ENUGU METROPOLIS: A CROSS-SECTIONAL STUDY

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Introduction: Physical therapy is one of the most valued components of the rehabilitation team) and plays an essential role in management of osteoarthritis. However, its relevance will be best captured from patients' perspective. Hence, this study assessed the level of satisfaction with and patients; perception of physiotherapy among adults with knee osteoarthritis.
Materials & Methods: In this cross-sectional study, ninety patients with osteoarthristis undergoing physiotherapy were recruited from three tertiary health institutions in Enugu Metroplois. public hospitals in Enugu metropolis. The study as conducted as per the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) checklist. A cluster sampling was used to select the participating hospitals with conveniece sampling employed to select individual patients. A self-structured questionnaires namely Physical Therapy Patient Satisfaction Questionnaire and the Revised Patient Perception of Patient – Centredness (PPPC-R) questionnaire were used to assess satisfaction and perception, respectively. We included adults (18-80years) attending outpatient physiotherapy clinic. We excluded patients with history of knee replacement surgery and/or present with cognitive impairment.
Results: A total of ninety patients (females = 73.3% and male = 26.7%) participated in this study. The mean total score for the patients' level of satisfaction with and patients' perception of physical therapy were 63.86±0.36 and 41.09±0.29, respective.
Conclusion: Patients with osteoarthritis were moderately satisfied but had a fair perception of the use of physiotherapy for osteoarthritis.
Keywords: Physiotherapy, osteoarthritis, satisfaction, perception, Enugu metropolis

LEVELS OF DEPRESSION, AMONG UNDERGRADUATE STUDENTS AND ITS RELATIONSHIP WITH ACADEMIC PERFORMANCE AT IMO STATE UNIVERSITY, OWERRI

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Introduction: Depression is a disorder that can affect one's overall functioning and its prevalence among university students has been reported to range between 6 and 54%. The study determined the prevalence of depression and its relationship with academic performance among final-year IMSU students
Materials and Methods: The descriptive correlational design was used for the study. From a total of 4,566 final-year undergraduate students, a sample of 318 final-year students was randomly selected from nine faculties in the university. A researcher-developed demographic questionnaire, Beck's Depression Inventory (BDI-1l), and students' CGPA were used to source data for the study. Descriptive data were summarized using descriptive statistics, while the Pearson product-moment correlation coefficient and Analysis of Variance were used to test relationships or differences among variables and groups at a 0.05 level of significance.
Results: The mean age of the respondents was 24.95±3.30; 42.5% were males and 57.5% were females. The level of depression among the students was minimal on average (11.59±8.23); a score of 13 being the cutoff for minimal depression out of a maximum possible score of 63. The academic performance of the students was fairly high with CGPA ranging from 2.30-4.21 (mean 3.3123±.39010). There was a weak negative relationship between students' depression level and academic performance (r = -0.15), and this relationship was not statistically significant (p = .795). Age (p = .012) and gender (p = .000) had a significant influence on the students' depression levels.
Conclusion: Majority of the students had minimal to mild depression in the university under study. (86.17%). The prevalence of moderate to severe depression was low (13.83%), and this was found among students of management, social sciences, and science faculties. Students' academic performance was slightly above average and this was not significantly related to depression, though an increase in depression level will lead to a decrease in academic performance.
Keywords: depression, university students, academic performance, correlates.

MALARIA EPISODE DURING PREGNANCY AND BIRTH WEIGHT AT TERM.

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The occurrence of malaria during pregnancy poses a significant public health challenge within endemic regions of sub-Saharan Africa and can have significant impacts on the outcome of childbirth. As malaria epidemiology is constantly evolving and Malaria in Pregnancy is a multifaceted occurrence, more evidence is needed to determine the most effective methods of managing and preventing malaria.
materials and methods: A total of one hundred and twenty-eight (128) pregnant women were recruited during this study, a well-structured questionnaire was administered, blood samples were obtained during fever episode for malaria investigation. Cord blood was obtained during child delivery for malaria investigation and childbirth weight was documented.
Results: Thirty-seven (28.9%) pregnant women had one episode, forty-two women (32.8%) had two episodes of malaria and forty-nine women had three episodes of malaria (38.3%). None of the cord blood from pregnant women with single episode of malaria had malaria parasite. Cord blood from women with three episodes of malaria infection show malaria parasites. Low birth weight was recorded among the babies delivered by women with three episodes of malaria infection (89%) while 65% of babies delivered by women with two episodes of malaria infection recorded low birth weight.
Conclusion: Despite control of malaria infection in Nigeria, Pregnant women still suffer more of this deadly disease, and it affect outcome of pregnancy.
Keywords: Malaria, Pregnancy, Cord blood, infection, endemic

CORRELATION OF PELVIC ULTRASOUND FINDINGS WITH HIGH VAGINAL SWAB IN PATIENTS PRESENTING WITH INFERTILITY AND CLINICAL INDICATION OF PELVIC INFLAMMATORY DISEASE

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Abstract: Infertility is the failure of a woman of child bearing age to achieve pregnancy after about 12 months of unprotected coitus. There are many causes of female infertility which include conditions such as anovulation, endometriosis, leiomyoma and infection. In the present study infection as possible cause was evaluated. The study correlated pelvic ultrasound findings with results from High Vaginal Swab of patients presenting with infertility and clinical indication of Pelvic Inflammatory Disease (PID). This is with the view of establishing pelvic inflammatory disease as a causative factor in infertility.
The study included 170 patients who were randomly selected from patients who presented with infertility in the Obstetric and Gynecology clinic of University of Nigeria Teaching Hospital Enugu and had a provisional diagnosis of pelvic inflammatory disease.
The patients were examined with both pelvic ultrasound and High Vaginal swab investigations and their results correlated.
The result showed that 45.55% of the populations were diagnosed with PID using ultrasound and 58.14% had positive PID result with HVS, while 16.81% had positive PID with both ultrasound and HVS.
In conclusion, ultrasound and HVS are veritable tools in diagnosis of patients presenting with infertility and should be used jointly for a comprehensive evaluation of the patient presenting with PID, as a positive ultrasound and HVS finding is suggestive of chronicity of the condition.
Key words: Pelvis, Infection, Swab, Ultrasound, Infertility

INCIDENTALOMAS IN CHEST RADIOGRAPH OF SUBJECTS PRESENTING FOR PRE-EMPLOYMENT MEDICAL EXAMINATION

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Introduction: **Imaging gives essential details of medical condition in both symptomatic and asymptomatic subjects. It aids in the** discovery of potentially life-threatening diseases. Although, it may make way for anxiety in subjects, expensive follow-up and invasive investigations, pre-employment medical imaging, specifically chest x ray is invaluable in an environment with poor health-seeking behaviour such as ours.
Materials and Methods: A total of 311 radiographs of apparently healthy subjects that presented for pre-employment chest X ray in the year 2022 in University of Nigeria Teaching Hospital Enugu were evaluated for incidental abnormal findings while reporting.
Results: Participants of 311 were included in the study having met the criteria. Age ranged from 20-45 years. Males were 47.3% while females were 52.7%. The incidental findings were seen in 5.1% of the subjects. Of all the incidental findings, prominent aortic knuckle and cardiomegaly had the highest incidence (25% each), followed by presence of cervical ribs (12.5%). The other findings of spina bifida occulta, scoliosis, leash of vessels in the upper zone, unilateral blunted costophrenic angle, metallic implant in the spine has incidence of 6.3% each. Incidental features were seen in subjects 25 years and above. Men have a higher frequency of having a prominent aortic knuckle while cardiomegaly was seen mostly in females.
Conclusion: Apart from features of hypertension, clinically relevant incidental findings on chest radiograph were uncommon. However, due to the poor health-seeking behavior in this environment, mandatary medical examination is still a necessity because it creats awareness of an evolving disease condition which may need to be addressed.
Keywords: pre-employment, medical examination, chest radiograph, incidentaloma, hypertension, Nigeria

LEFT VENTRICULAR HYPERTROPHY IN AFRICAN CHILDREN INFECTED WITH HIV/AIDS

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Introduction: Left ventricular hypertrophy (LVH) is a cause of cardiovascular risk in children with HIV/AIDS globally. LVH measured by echocardiography (using the left ventricular mass index) seen in a disease characterized by wasting is incongruous and may be due to factors modulating hypertrophic response on cardiac muscles. There is need to study this in African children with HIV/AIDS, to fill this gap.
Materials and methods: Echocardiography was performed on eighty four cases and eighty four age and sex matched controls, consecutively recruited for the study using SONO 2000 machine with 5.5 – 12 MHz transducer. The prevalence of LVH was determined using proportions and associated factors using logistic regression. Data analysis was with SPSS version 25.
Results: LVH was seen in (56.9%) of the patients and (4.1%) of the control group ($p = 0.001$). Left ventricular mass index (LVMI) g/m^2 were significantly higher in the cases with 90.37± 35.50, $F = 1.59$, $p = 0.04$ than control with 89.37 ± 14.25. Relative wall thickness (RWT) was with in normal in the control = 0.35 ± 0.06 and high in the cases = 0.67 ± 0.17, $F = 1.21$, $p = 0.01$. Eccentric hypertrophy was common, seen in 36.9% of them. A linear relationship between LVH and CD4+ cell counts and BMI for age of the patients was noted. Logistic regression analysis, showed lower BMI for age and lower CD4+ cell count as predictors of LVH. $r = 0.212$, $p = 0.005$, CI = 0.001 – 0.014; $r = 0.396$, $p = 0.03$, CI = 0.002 – 0.066 respectively.
Conclusions: The prevalence of LVH is high. This supports the recommendation for baseline and periodic echocardiography in the management priority in these children with HIV/AIDS for cardiovascular complications.
Key Words: Left ventricular hypertrophy, children, retroviral disease

CHRONIC KIDNEY DISEASE IS THE COMMONEST CAUSE OF DEATH IN THE ADULT MEDICAL WARDS OF UNIVERSITY OF NIGERIA TEACHING HOSPITAL.

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Introduction: Most developing regions of the world are undergoing epidemiological transition resulting in a high burden of both communicable and non-communicable diseases. This affects the pattern of death in this region.
Materials and Methods: Data were collected from admission and death records, retrospectively from January 1995 to January 2005, and analyzed using Statistical Package for Social Sciences (SPSS Inc. Chicago, IL, USA) version 17.0. Simple descriptive statistics were done.
Results: The mortality rate was 28.3% (4637/16,368) admissions. Infections (19.3%) were the most common cause of death. However, chronic kidney disease was the single most common disease entity causing death (13.9%). Other important causes of death in order of prevalence were cerebrovascular accident (10.3%), heart failure (9.3%), acquired immune deficiency syndrome (7.6%), chronic liver disease (6.5%), septicemia (6.1%), respiratory failure (4.4%), diabetes mellitus (3.2%), primary liver cell carcinoma (2.9%) and cardiac arrhythmias (2.4%). There were few deaths from tetanus, malaria, typhoid fever, and coronary artery disease.
Conclusion: Mortality is high in our medical wards and reflects the emerging mixed disease spectrum of communicable and non-communicable diseases.
Keywords: Chronic kidney disease, infections, adult medical wards, mortality

OSTEOPOROSIS KNOWLEDGE AMONG STUDENTS OF HEALTH-CARE ACADEMIC PROGRAMS IN SELECTED UNIVERSITIES IN SOUTHEAST NIGERIA

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Background: Osteoporosis is a growing health burden and is one of the most common metabolic diseases. Students in relevant health-care academic programs are the future professionals who should play an active role in increasing community awareness regarding chronic diseases such as osteoporosis. This research aimed to evaluate the knowledge of osteoporosis among students among students in healthcare professions programs in two selected universities in South-east Nigeria.
Method: A convenient sample of 1682 students, majorly females (56.8%) within ages 21-30years (57.6%), who were in Medicine and Surgery, Nursing, Nutrition and Dietetics, Pharmacy and Physiotherapy academic programs in University of Nigeria (50.7%) and Nnamdi Azikiwe University (49.3%) participated in this cross-sectional study. The Facts on Osteoporosis Quiz (FOOQ) questionnaire was used to collect the data and data were analysed using descriptive and inferential statistics. Independent t-test and Analysis of Variance were used to test for differences between groups and Tukey HSD test was used for post-Hoc analysis between groups. Alpha level was set at 0.05.
Results: Significant differences were found in the mean FOOQ scores of students from different healthcare academic programs (0.000), age groups (0.000) and academic levels (0.000), however, no significant differences were found between students of different gender (0.565) or from different Universities (0.531). Osteoporosis knowledge among Physiotherapy students was significantly higher (0.000) than that of students in all other academic programs.
Conclusion: This study highlights the educational needs of students in healthcare academic programs regarding osteoporosis. Curriculum reviews and improved clinical education may be required to improve osteoporosis knowledge among these future healthcare professionals.
Keywords: Osteoporosis, Knowledge, Students, Healthcare, Academic Programs,

LOW BACK PAIN AMONG UNDERGRADUATE PHYSIOTHERAPY STUDENTS: PREVALENCE STUDY.

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Introduction: This study is aimed at investigating the prevalence of Low Back Pain among physiotherapy students. Low Back Pain is a musculoskeletal disorder that affects a wide range of individuals. Physiotherapists are specialists equipped with the skills to combat this musculoskeletal pathology. Low Back Pain affectation is often associated with age, with older people being at more risk. In recent times however, its prevalence among younger population gradually increase. Physiotherapy practice and training which
involves a lot of bodily involvement may pose a risk to developing low back pain among physiotherapy students.
Materials and Methods: This study utilizes a cross sectional design. The survey was carried out online, on volunteer undergraduate students of University of Nigeria, and Nnamdi Azikiwe University. Their indicators of health were assessed after Ethical Clearance was obtained from the Molecular Pathology Institute Health Research Ethics Committee (MPIHREC) Enugu, and data regarding presence of low back pain and level of involvement in academic activities were gotten and analyzed. The reliability test on data of Cronbach alpha 0.89 was obtained
Results: The results showed a lifetime prevalence of 76.7% among the participants, which was seen to increase with increasing academic level, and related to prolonged standing and sitting looking down.
Conclusions: The high incidence is related to academic activities that may not be directly related to undergraduate physiotherapy study, but there is still a high prevalence among the students, which physiotherapy knowledge has not curtailed.
Keywords: Prevalence, Physiotherapy, Undergraduate, Southeast, Back Pain

FACTORS ASSOCIATED WITH MOBILITY IMPAIRMENTS AMONG OLDER ADULTS IN ENUGU METROPOLIS

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Background: Mobility is an independent indicator for an older adult's health and wellbeing. Mobility Impairments refers to the reduced or loss of capacity to carry out daily activities.
Objective: The study was a descriptive survey research design aimed at ascertaining the factors associated with mobility impairments among older adults in Enugu Metropolis. ii
Method: This study was conducted in Enugu Metropolis with 220 Older adults. A questionnaire with section A to F and a physical performance test were the two instruments used for data collection from the respondents. Face validation of the instrument was used to validate the questionnaire and Cronbach`s Apha was used to ascertain the internal consistency of the instrument which yielded a co-efficient index value of 0.717. Descriptive statistics of percentages and frequencies was used to analyze the data collected while hypotheses were tested using Chi-square test of independence at $p<0.05$ level of significance using SPSS (24.0) software.
Result: The findings revealed that majority of the participants had mobility impairments ranging from no impairment, mild, moderate, preclinical to severe mobility impairment. There were significant differences between mobility impairments and age (p=0.000), gender (p=0.000), NCD (p=0.003), psychological status (p=0.000) and sedentary lifestyle (p=0.000).While there were no significant differences between mobility impairments and nutritional status (p= 0.168) and low muscle weakness (p= 0.253). The findings also revealed that age, gender, NCD, psychological status, and sedentary lifestyle were the major factors associated with mobility impairments.
Conclusion: Based on the findings, recommendations aimed at reducing or preventing factors associated with mobility impairments among older adults were given and campaigns to educate older adults on the predisposing factors of mobility impairments should be encouraged.
Keywords: Mobility, Impairments, older adults, Sedentary Lifestyle, Non-communicable Chronic Diseases. iii

Virtual Presentations

PAIN MANAGEMENT AND PATIENT EDUCATION FOR PHYSICAL ACTIVITY IN INTERMITTENT CLAUDICATION (PREPAID): FEASIBILITY RANDOMISED CONTROLLED TRIAL

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Introduction: This study tested the feasibility of conducting a trial of pain management (Transcutaneous Electrical Nerve Stimulation (TENS)) and patient centred education to increase physical activity in people with peripheral arterial disease (PAD) with intermittent claudication (IC).
Methods: Participants diagnosed with PAD and IC were recruited from NHS Greater Glasgow & Clyde cardiovascular services. This is a double-blind feasibility randomised controlled trial The primary outcome measure was absolute claudication distance (using Garnder treadmill protocol). Secondary outcomes included physical activity behaviour and patient-reported quality of life. Assessment was at baseline (with second treadmill test for screening), post intervention (6weeks) and follow-up (3 months). Participant experience of the intervention was explored with semi-structures interviews after follow-up. Feasibility was assessed by recruitment, retention, intervention uptake and adherence, and outcome completion.
Results: Ninety-five potential participants completed baseline screening (from 1030 reviewed records and 267 eligible individuals). Individuals (n=38) excluded during screening had >20% variability in treadmill absolute claudication distance. All randomised participants (n=56) received their allocated intervention, and outcome completion was 91% (6 weeks) and 80% (3 months). Attendance at the group education session was high (96%) with 63% taking follow-up phone calls. Compliance with TENS (>=30 min/day, >=3 days/week, >=3weeks) was 70% according to participant completed log books, but only 28% using use records from TENS machines. The participants interviewed (n=9) were generally positive about the interventions and trial procedures, however experience of TENS use was mixed. Some participants were dissatisfied with the size and cables of the TENS machine.
Conclusions: The PrEPAID trial was feasible to run, however, 40% of potential participants were excluded at screening, due to issues of research fidelity and not participant suitability or willingness to participate. Future work should consider a revised primary outcome measure and use of a smaller wireless TENS machines.
Key words: physical activity, pain management, behaviour change, complex intervention, long-term condition

ASSESSMENT OF RADIOGRAPHERS' KNOWLEDGE OF FIRST AID AND EMERGENCY CARE: A CASE STUDY OF RADIOGRAPHERS IN ENUGU METROPOLIS

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Introduction: Diagnostic radiographers play a very important role in a medical emergency environment as they often work alone with critically ill and/ or-injured patients. Radiographers' knowledge of first aid and its application in emergency cases can be the difference between life and death of a patient. This study was therefore, aimed to assess the knowledge of radiographers on first and emergency care.
Materials And Methods: A cross-sectional survey was conducted using a self-administered questionnaire which was distributed to 70 radiographers working at six (6) different radiography centers in Enugu metropolis. The questionnaire consisted of 4 parts and the Cronbach alpha is 0.7. Data was collected and analyzed using SPSS version 21.0. A total of 68 questionnaires were completely and adequately filled and returned.
Result: The result from the study showed that 92.6% (n=63) of radiographers think the knowledge of first aid and emergency care is very important. Only 54.4% (n=37) of the radiographers had an average knowledge of first aid. A gross dissatisfaction in their knowledge of first aid was shown by 26.5% (n=18) of the radiographers. The study also showed that 80.8% (n=55) of respondents would be interested in a compulsory training on first aid and emergency care.
Conclusion: This work provided useful information on the radiographers' knowledge of first aid and emergency care in Enugu metropolis. It is worthy of note that radiographers' knowledge of first aid and emergency care is below expectation. There is, therefore, an urgent need to organize regular trainings and refresher courses to ensure radiographers are adequately equipped to recognize and manage medical emergencies that may arise in the course of their work.
Keywords: Radiographers; Knowledge; First Aid; Emergency Care

COMPARATIVE ANALYSIS OF BURDEN OF TOPMOST DISORDERS REQUIRING REHABILITATION SERVICES – A SYSTEMATIC REVIEW AND META-ANALYSIS

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Background: Rehabilitation is an essential health service that should be available for all. Equitable distribution of scarce and limited rehabilitation resources is determined by the burden of diseases. Most studies on burden of diseases have laid greater emphasis on disability adjusted life years (DALYs) and rarely compared these burdens among conditions. This present study aims to systematically review and compare the burden of the top 10 GBD ranking of disorders.
Method: This review was pre-registered with PROSPERO (CRD42022316091). PubMed and Google Scholar were systematically searched as well as a manual search of grey literatures from 01/01/1990 to 29/02/2022. The results of this review were reported based on PRISMA guideline. Meta-analysis results were presented using forest plots and summary tables.
Results: A total of 11,367 studies were obtained from the searches, while the findings of 55 studies (17,753,434 participants) were reviewed. Majority of the studies were conducted in high-income-countries (56.1%) though, all the studies on neonatal disorders (100.0%) and congenital birth disorders (100.0%) came from the low-and-middle-income-countries. Neonatal disorders, stroke and ischaemic heart disease (IHD) topped the rank of disease burden. Overall, the burden of neurological disorders and their associated risk factors (aRFs), in terms of disease prevalence, were evaluated to be 36.75% while their mortality rate was 29.90%. Neurological conditions and aRFs accounted for 61.83% of total economic burden.
Conclusion: Neonatal disorders, stroke and IHD are the three most burdensome disorders. There is therefore need for greater focus of rehabilitation attention and resources in the coming decades.
Keywords: Burden of diseases, Rehabilitation, Systematic Review, Comparative Analysis

PATIENT DERIVED XENOGRAFT CANCER MODEL THE FIRST OF ITS KIND AS A THERAPEUTIC MODEL IN NIGERIA

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Introduction: Cancer is a heterogenous disease. Patient derived xenograft (PDX) models are three-dimensional hence, replicate the heterogeneity of cancer while cell lines are two dimensional and homogenous. This poses a limitation for use of cell lines as therapeutic tools. However, genetically engineered nude mice are not readily available in resource poor setting. We aimed to characterise and establish PDX models against all odds.
Methods: Ethical clearance (065/03/2019) was obtained for this study. Triple-negative breast cancer (TNBC) was derived from a consenting 32-year-old Nigerian woman who had neoadjuvant therapy and had undergone a mastectomy. TNBC lacks expression of hormone receptors including human epidermal receptor (HER2-), estrogen receptor (ER-) and progesterone receptor (PR-) genes. TNBC xenograft was established by orthotopic surgical implantation of breast cancer tissue fragments of 2mm3 in size with cultrex in the cleared breast pads of immunosuppressed mice and a further two passages. The size of the implanted tumour was checked twice weekly. Haematology & eosin histology and immunohistochemistry analysis were used to characterize the tumour xenograft and primary tumour respectively structurally and functionally. Real-time quantitative polymerase chain reaction (RQ-PCR) was used to evaluate the genomic correlation between primary tumour and tumour xenograft. RQ-PCR was performed using TaqMan chemistries. This was validated by DNA sequencing of the xenografts tumour and primary tumour using Nanopore DNA sequencing, and Ligation Sequencing ID2 chemistry. The DNA sequences were aligned with Meg Align Pro software, a bioinformatic tool.
Results: The xenografts recapitulated the primary tumour molecularly and morphologically. There was a local invasion of breast cancer in the bone. The pairwise alignment yielded significant percentage relativity.
Conclusion: PDX models unique to Sub Saharan Africans can be established in a low resource setting and used as therapeutic tools for drug discovery, translational and precision medicine.
Keywords: Cancer, Therapeutics, PDX models, DNA Sequencing, RQ- PCR.

TITLE: GASTROPROTECTIVE PROPERTIES OF *CAJANUS CAJAN* LEAVE EXTRACTS IN ETHANOL INDUCED GASTRIC ULCER IN ALBINO RATS

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Introduction: Ulcer is one of the most prevalent non-communicable disease (NCD) affecting people in low and middle-income Countries. Plants are a key source of novel medications, and they are frequently utilized to cure a variety of ailments by humans. This study investigated the gastro-protective properties of aqueous and methanol extracts of *Cajanus cajan* leaves in ethanol induced gastric ulcer in Albino rats.

Materials and methods: Twenty-four rats weighed and divided into six groups (A-F) of four rats each were used for this study. Group A and B served as negative and positive controls respectively, gastric ulcer was induced in all other groups except group A by administering 1ml/kg of 95% ethanol orally with or without a 3-day prior treatment with standard drug (Omeprazole) or leave extract (low and high dose aqueous and methanol extract). The rats were sacrificed, stomach excised and ulcers scored. Histological and statistical analysis were also performed.

Results:*Cajanus cajan* leave extract protected the stomach of the rats from ethanol induced ulceration to varying degrees with the high dose (240mg/kg body weight) aqueous extract group having an ulcer preventive index (UPI) of 69%. The positive control group had a negative UPI signifying that the control drug did not afford any protection to the animals in the group. Histological findings also correlated with calculated ulcer indices with *C.cajan* leave extracts treated animals having significantly less gastric epithelial cell lesions when compared to untreated ones.

Conclusion: Aqueous leaf extract of *Cajanus cajan* at higher concentrations possesses gastro-protective properties against ethanol induced gastric ulcers.

Keywords: *Cajanus cajan, gastric ulcer, gastroprotective, Non-communicable disease*

EVALUATION OF LEAD APRON AS A POTENTIAL SOURCE OF NOSOCOMIAL INFECTION IN OPERATING THEATER

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Introduction: For radiation protection, lead aprons are often carried into the operating theater from the radiology department, where there are few or no dedicated lead aprons for the operating theater, and can be a potential source of nosocomial infection. The research aimed at evaluating the presence of microorganisms on the lead aprons and devising a simple method of cleaning to lower the risk of contamination in the operating room.
Materials and methods: A total of 64 swabs were taken in two regions of the lead apron, the shoulders (inner and outer) and secondly, the front middle part of the apron (inner and outer). 40 samples were collected before cleaning, while 24 post-cleaning swabs was also taken from areas where growth were isolated using three different agents routinely used in our hospital: (cetrimide and chlorohexidine gluconate (savlon), isopropyl alcohol (methylated spirit) and sodium hydrochloride (Hypo/bleach). The samples collected were cultured on plates of Blood Agar, chocolate Agar, and MacConkey Agar and incubated at 37°c for 48h. The Data was analysed using SPSS version 16.0, using descriptive statistics such as frequency and percentage.
Result: Growth was observed on 29(72.5%) of X-ray aprons, and Staphylococcus aureus 20(69%) and Staphylococcus epidermidis 9(31%), were the pathogens observed on the lead apron, mostly on the outer part of the lead apron at the level of the patients and bed, followed by the inner part at the same level. The least noticeable area of growth is the inner part of the shoulder. After cleaning, no growth was detected in the 24 samples collected.
Conclusion: Lead aprons can be a potential source of nosocomial infections in the operating theater, and cleaning them with any of the available disinfectants in the hospital before taking them to the room will significantly reduce the bacteria load.
Key words: lead apron, nosocomial infection, operating theater.



TREATMENT OUTCOMES OF STEREOTACTIC BODY RADIATION THERAPY FOR CERVICAL CANCER: A SYSTEMATIC REVIEW.

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Introduction: The standard of care for cervical cancer patients is external beam radiotherapy (EBRT) with a brachytherapy boost. Brachytherapy is not feasible in certain patients. Stereotactic body radiation therapy, (SBRT) involves the delivery of larger doses of radiation in a few fractions. The research aimed at evaluating and summarizing the current literature in cervical cancer patients treated with SBRT boost through a systematic review.
Materials and methods: A literature review was conducted between 2004 and 2022 for peer reviewed articles. A search through data base available at our disposal at the point of or research (Pubmed and Scopus) using pre-defined search strategies resulted in eighteen (18) articles that were evaluated. Data on local control, survival, toxicity, and dose were extracted and reported using Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA).
Results: Eighteen studies met the inclusion criteria and were fully reviewed, with a total of 328 patients. SBRT achieves better target coverage and better dose distributions to critical organs; there is good locoregional tumor control, with a median target coverage of 99.1% as against 50.7% for BT at 100%. BT dose is 10–20% higher; however, the organ-sparing effect of SBRT is increased by 20-30%. There is mild toxicity to SBRT, with only two studies recording 13% and 19% grade 4 toxicity. Combining the two treatment methods (SBRT and IMRT) shows improved target dose coverage for large tumors.
Conclusion: The current studies show that SBRT is an effective and safe modality for patients with cervical cancer. There is a significant increase in local tumor control, and it can be used as a radiation boost in cervical cancer patients not eligible for ICBT. There is also associated grade 3 or 4 gastrointestinal and urinary toxicity in a few patients when a high dose is used in a large tumor volume.
Key words: SBRT, cervical cancer, treatment outcome.

EVIDENCE-DRIVEN DECISION-MAKING IN COMMUNICABLE DISEASE CONTROL IN SOUTH-EAST NIGERIA: PERCEPTIONS FROM PRODUCERS AND USERS OF RESEARCH EVIDENCE

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Introduction: Endemic tropical diseases (ETDs), such as malaria, HIV, and tuberculosis, are high-priority research areas and continue to receive the funding required for eradication in low-resource countries like Nigeria. However, these ETDs represent a significant annual health burden, negatively affecting social progress and economic productivity. This study explores the perceptions of producers and users of evidence on the barriers and solutions to integrating research evidence into decision-making for controlling ETDs in Southeast Nigeria.
Materials & Method: The study involved structured discussions in a workshop with sixty-eight participants (producers and users of evidence). Participants were purposely selected and allocated to groups based on their current involvement in endemic disease control and expertise. A topic guide facilitated the discussions, and a designated recorder took thorough notes. The results of the discussions were manually analysed and synthesised.
Results: The main gaps in health policy and systems research (HPSR) are weak research connections between evidence producers and users and low demand for research evidence. The study identified potential solutions to these challenges, such as strengthening research communication channels, institutionalising long-term capacity building, and promoting collaboration between researchers and decision-makers.
Conclusion: Constraints in the interactions between the users and producers of evidence limit evidence-informed decision-making for controlling ETDs. Stronger research partnerships, the institutionalisation of HPSR, and frameworks for translating research into policy and practice could all help to overcome these limitations.
Keywords- Evidence-based decision-making, endemic tropical diseases, HPSR, used of evidence

PAIN MANAGEMENT AND PATIENT EDUCATION FOR PHYSICAL ACTIVITY IN INTERMITTENT CLAUDICATION (PREPAID): FEASIBILITY RANDOMISED CONTROLLED TRIAL

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Introduction: This study tested the feasibility of conducting a trial of pain management (Transcutaneous Electrical Nerve Stimulation (TENS)) and patient centred education to increase physical activity in people with peripheral arterial disease (PAD) with intermittent claudication (IC).
Methods: Participants diagnosed with PAD and IC were recruited from NHS Greater Glasgow & Clyde cardiovascular services. This is a double-blind feasibility randomised controlled trial The primary outcome measure was absolute claudication distance (using Garnder treadmill protocol). Secondary outcomes included physical activity behaviour and patient-reported quality of life. Assessment was at baseline (with second treadmill test for screening), post intervention (6weeks) and follow-up (3 months). Participant experience of the intervention was explored with semi-structures interviews after follow-up. Feasibility was assessed by recruitment, retention, intervention uptake and adherence, and outcome completion.
Results: Ninety-five potential participants completed baseline screening (from 1030 reviewed records and 267 eligible individuals). Individuals (n=38) excluded during screening had >20% variability in treadmill absolute claudication distance. All randomised participants (n=56) received their allocated intervention, and outcome completion was 91% (6 weeks) and 80% (3 months). Attendance at the group education session was high (96%) with 63% taking follow-up phone calls. Compliance with TENS (>=30 min/day, >=3 days/week, >=3weeks) was 70% according to participant completed log books, but only 28% using use records from TENS machines. The participants interviewed (n=9) were generally positive about the interventions and trial procedures, however experience of TENS use was mixed. Some participants were dissatisfied with the size and cables of the TENS machine.
Conclusions: The PrEPAID trial was feasible to run, however, 40% of potential participants were excluded at screening, due to issues of research fidelity and not participant suitability or willingness to participate. Future work should consider a revised primary outcome measure and use of a smaller wireless TENS machines.
Key words: physical activity, pain management, behaviour change, complex intervention, long-term condition

EVALUATION OF THE COMBINATION EFFECTS OF EXTRACTS OF *Jatropha tanjorensis* AND *Adansonia digitata* ON CLINICAL FUNGAL ISOLATES.

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Introduction: *Jatropha tanjorensis* and *Adansonia digitata* has being in use since ancient time to cure minor health issues, hence the aim of this study to evaluate the combination effects of the extracts of *jatropha tanjorensis* and *adansonia digitata* on clinical fungal isolates.
Materials and methods: The phytochemicals screening of the extracts were done and the methanol and aqueous (cold and hot) extracts of the plants bark, leaves and stem were assessed for their antifungal activities against 8 fungal isolates using agar diffusion method. The minimum inhibitory concentration (MIC) and minimum fungicidal concentration (MFC) were done according to standard methods.
Result: The phytochemicals screening showed that the plants contain alkaloids, terpernoids, saponins, flavonoids, tannin, glycoside and phenol. The hot water extracts of *J. tanjorensis* gave a higher zone of inhibition diameter (IZD) better than the methanol and the cold water extract while the methanol extracts of *A. digitata* gave a higher IZD than the cold and the hot water extracts, this depicts high antifungal activities. The Combined extracts showed the highest susceptibility on *Aspergillus niger* while showing lowest susceptibility *on Trichophyton shoenleinii*. There was no statistical significant difference (p=0.613119) in susceptibility pattern of the methanol and aqueous extracts of the *A. digitata* bark, leaf and stem. However, there was significant difference (p=0.033593) in the aqueous and methanol extract of *J. tanjorensis* stem and bark at concentrations of 100mg/ml and 50mg/ml. Conventional antifungal drugs showed highest antifungal activity. The lowest (MIC) and (MFC) were recorded in *A. niger* (1.5625mg/ml) and (3.125mg/ml) respectively while the highest (MIC) and (MFC) were recorded in *T. shoenleinii* (25mg/ml) and >100mg/ml respectively.
Conclusively, this study revealed that the combined plant extracts were more effective against opportunistic fungi than the dermatophytes. We therefore recommend the use of the combined plant extracts for therapeutic uses against opportunistic fungal infections.
Keywords: *Jatropha tanjorensis, Adansonia digitata, Fungi, Minimum inhibitory concentration.*

EVALUATION OF ANTIFUNGI ACTIVITY AND PHYTOCHEMICAL ANALYSIS OF METHANOLIC PLANT EXTRACT OF OSU FRUIT (*HUNTERIA UMBELLATA*)

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Introduction: *Hunteria umbellata* (Osu fruit) has been claimed by traditional practitioners to be effective in the treatment and management of many non communicable and communicable diseases such as diabetes mellitus, yaws, infertility, ulcer, dysmenorrhea.and gastrointestinal tract infections among others This study aimed at evaluating the antifungal potency and phytochemical analysis of the methanolic extract of *H. umbellata*.
Materials And Methods: The powdered fruit parts were extracted using soxhlet machine. The methanol extract of the *H. umbellata* epicarp, mesocarp and seed were assessed for their antifungal activities against 6 fungal isolates, using pour plate agar block method. The activities of some conventional antifungal drugs were also examined.
Results: The phytochemical screening showed that alkaloids, terpenoids, saponins, flavoniods, tannin, glycoside and phenol were present. The mesocarp, seed and epicarp of *H. umbellata* showed varying degrees of antifungal activities. The extract with the highest antifungal activity was the mesocarp with *Penicillium* spp having the highest inhibition zone diameter (45mm) followed by *candida albicans* (41mm), *Trihophyton spp* (40mm), *Aspergillus niger* (40mm) while *Aspergillus flavus* and *Aspergillus fumigatus* did not show activity at all. There was statistical significant difference ($P<0.05$) ($P = 0.033593$) in susceptibility pattern of the methanol and aqueous extract of the mesocarp. However, there was significant difference (<0.05) ($p = 0.033593$) in the methanol and aqueous extract of the seed and epicarp against *Candida albicans*, *Trichophyton spp* from the highest concentration (100mglml) to the lowest concentration (3.125mglml) while, at the same concentration, the seed and epicarp of methanol extract of *H. umbellata,* showed no significant difference ($p>0.05$) ($p=0.738259347$) against *Aspergillus flavus* and *Aspergillus fumigatus*. The methanol extract of *H. umbellata* mesocarp was better than the seed and epicarp extract ($p<0.05$).
Conclusion: *Hunteria umbellata* fruit can be used as a potential agent for the treatment of various non communicable and communicable diseases.
Keywords: Antifungal, Medicinal herb, infectious diseases, *Hunteria umbellata*

ASSESSMENT OF LEVEL OF UTILIZATION OF LUNG ULTRASOUND IN THE DIAGNOSIS OF PNEUMONIA AMONG SONONGRAPHERS IN NIGERIA.

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Introduction: Pneumonia is the highest killer of children in Nigeria. Its management requires imaging modalities like computed tomography, chest x-ray, and lung ultrasound (LUS). Lung ultrasound has demonstrated more sensitivity to the diagnosis of lung diseases than chest x-ray and clinical examination combined. This study assesses the utilization of LUS among sonographers in the management of pneumonia.
Materials and methods: This cross-sectional online questionnaire survey involved 213 practicing sonographers in Nigeria who consented to and filled online questionnaires sent to their personal and group WhatsApp between August 9th and September 20th 2022. A pilot study was conducted to determine the internal consistency of the items in the questionnaire and a Cronbach Alpha of 0.85 was obtained. Data was analyzed using SPSS software version 23. Descriptive statistics and inferential statistics were used to analyze the level of utilization and relationship between practice of LUS and level of education respectively.
Results: The majority of the respondents are males; between 31-40 years; B.Sc. holders; work in private establishment and are on full-time employment. Out of 213 participants, 150 (70.4%) have never practiced lung sonography. Also, of 63 (29.6%) that practiced LUS, majority have just practiced for 1-5 years. Major reasons for practicing LUS are interest, carving out a niche for themselves and making extra money while the major reasons for not practicing LUS are lack of skill, low referral and no formal training. No relationship between practice of LUS and level of education ($p > 0.05$) They recommended that practice of LUS should be made compulsory for sonographers while regulatory authorities should include it as part of their continuous development program.
Conclusion: Practice of LUS among Nigerian sonographers is low. Lack of skill and training are the major reason for such low utilization. This will negatively affect the management of patients with pneumonia.
Keywords: Assessment; Practice of LUS, Patients; Pneumonia; Sonographers

KNOWLEDGE OF ETHICO-LEGAL ASPECTS OF NURSING PRACTICE AMONG NURSES AND MIDWIVES IN ESUT TEACHING HOSPITAL PARKLANE, ENUGU STATE NIGERIA.

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Introduction: Ethics is the study of what is right and wrong in human conduct. Nursing ethics and laws are necessary in nursing because nursing services involve provision of care to humans that if not provided effectively, may impact negatively on the client and all concerned. Also, with the rise in legal and ethical problems associated with client care, nurses should have adequate understanding of basic legal concepts. The purpose of this study was to assess the knowledge of ethico-legal aspects of nursing practice among nurses in ESUT Teaching Hospital Parklane, Enugu. The specific objectives of the study were to (1) assess the knowledge of nurses and midwives towards ethics in nursing practice, (2) assess their knowledge on legal aspects of nursing practice and (3) assess their knowledge on implications of not abiding to these aspects.
Method and Material: A sample size of 197 were recruited using simple random sampling technique. Descriptive survey design was adopted for the study and the instrument for data collection was self-administered questionnaire. The reliability of the instrument was ascertained using Cronbach's Alpha average reliability of 0.726. Data collected was analyzed using descriptive statistics. Major findings from the study revealed that majority (82.7%) of the nurses have good knowledge on ethics but lacked knowledge on ethical theories, majority have knowledge of legal aspects of nursing practice (80.7%) but lacked Knowledge on some legal aspects like tort laws, battery and negligent homicide.
Conclusion: Greater number of the participants (95.4%), are knowledgeable on ethics and the implications of not abiding to the ethico-legal aspects of nursing practice but lacked knowledge on some legal aspects. In view of this, it was recommended that seminars and workshops should be organized for nurses to give update especially on areas where they have deficient knowledge.
Keywords: Ethics, law, nurses, midwives.

ANTHROPOMETRIC EVALUATION AND ERGONOMIC ASSESSMENT OF CLASSROOM FURNITURE SUITABILITY FOR UNDERGRADUATES IN A NIGERIAN UNIVERSITY.

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Introduction: Anthropometric data are essential for applying ergonomic principles for the design and implementation of the principles of fitting the furniture to the user. Furniture designs that does not match with the body dimensions predisposes students to negative health impacts. This study determined the level of furniture mismatch among these cohorts.
Method: This cross-sectional study done among undergraduates of the Faculty of Health Sciences and Technology in the University of Nigeria. Classroom furniture design was assessed using a self-structured ergonomic checklist. Ethical approval was sought and obtained from the Research and Ethics Committee of the University of Nigeria Teaching Hospital. Anthropometry and classroom furniture measurements was also evaluated to determine mismatch. Data were analyzed descriptively and inferentially with chi-square at α=0.05.
Results: A total of 1200 students from different departments and levels of study was selected. The study revealed a high percentage mismatch for seat height (100%, n=1200), desk heights (100%, n=1200) and seat width (96.1%, n=1153) and a moderate mismatch for seat depth (59.6%, n=715) and backrest height (59.3%, n=711). There was a significant association between the furniture mismatch and each of departments ($p<0.05$), grade ($p<0.05$).
Conclusion: There is a substantial degree of mismatch between the furniture design and the anthropometry of the students. This mismatch can predispose them to musculoskeletal disorders and therefore calls for immediate intervention.
Key words: Ergonomics, Anthropometric measures, Furniture dimensions, Match and Mismatch.

PSYCHOSOCIAL AND CLINICAL DETERMINANT OF POSTPARTUM DEPRESSION AND ANXIETY – A SIX WEEK PROSPECTIVE COHORT STUDY

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Introduction: Postpartum depression and anxiety are two common mental health disorders in women of child bearing age. Childbirth is a widely celebrated moment across the world as it comes with happiness, a unique feeling of contentment, and euphoria in women.
Aim: The aim of this study was to ascertain the psychosocial and clinical determinant of postpartum depression and anxiety among women in Akwa Ibom State.
Method: This prospective cohort study design was carried out among women in their 36-40 weeks of gestation, 2, and 6 weeks postpartum respectively who attended antenatal clinic in three selected hospitals in Uyo. Ethical approval for this study was obtained from the University of Uyo Teaching Hospital, Uyo Institutional Health Research Ethical Committee (IHREC). Researcher developed interviewer-administered structured questionnaire was used to collect variables of all the mother's socio-economic and demographic characteristics, obstetric and clinical data as appropriate. Antepartum anxiety was assessed using Hamilton anxiety rating scale with Cronbach alpha value 0.77, Antepartum depression was assessed using Patient Health Questionnaire with Cronbach value 0.85, and social support was assessed using Interpersonal support evaluation list 12 shortened version (ISEL-12) with Cronbach value 0.83. Stage two and three involved a follow-up at 2, and 6 weeks postpartum respectively when participants' new born parameters and labor outcome were assessed, in addition to postpartum depression, postpartum anxiety, and social support. Postpartum depression at these phases was evaluated using Edinburgh postpartum depression scale with Cronbach value 0.79. Data collected was analyzed using descriptive statistics, repeated measure and multiple regression. Level of significance set at $<=0.05$.
Result: A total of 264 Women aged 18 – 45years (28.54±4.58) who were attending antenatal clinic were recruited in the study. At base line the prevalence of antepartum depression, anxiety and social support were (n = 264, % =39.7%, 48.3% and 49.2%) respectively. At 2 weeks prevalence postpartum depression, anxiety and social support were (n = 264, % = 42.9%, 50.9% and 22.3%) respectively, with a comorbidity prevalence of (n = 264, % =26.3%). At 6 weeks, the prevalence rate of postpartum depression, anxiety and social support were (n = 264, % = 38.2%, 46.9% and 9.5%) with a comorbidity prevalence rate of (n = 264, % = 23.3%). There was a significant different in depression ($F = 24.696$, $P < 0.001$), anxiety ($F = 89.161$, $P<0.0001$), and social support ($F = 7.426$, $P=0.007$) when compared across the time series (baseline, 2 weeks, and 6 weeks). First pregnancy ($\beta = 0.152$, $P = 0.021$) and number of children ($\beta = 0.143$, $P = 0.026$) were significant predictors of PPD and PPA respectively at week 2.
Conclusion: PPD and PPA significantly increased from baseline to 6 weeks while social support significantly decreased across the time spectrum. First pregnancy and number of children are predictors of PPD and PPA respectively.
Keyword: Psychosocial, postpartum depression, Antenatal depression, postpartum anxiety, Antenatal anxiety.

HUMAN FACTOR CHALLENGES ASSOCIATED WITH HOSTEL FACILITIES IN UNIVERSITY OF NIGERIA ENUGU CAMPUS - A MIXED METHOD DESIGN.

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ABSTRACT

Introduction: The condition of students' hostel facilities plays an important role in the attainment of quality education. However, there has been significant evidence as regards the inadequacy of essential facilities among public universities in Nigeria hence this study assessed the condition of hostel facilities in the University of Nigeria Enugu campus (UNEC). **Methods**: This research utilized a mixed study design to evaluate the human factor challenges associated with hostel facilities in the UNEC. Ethical Approval was obtained from the Research and Ethics Committee of the University of Nigeria Teaching Hospital. A self-developed and content-evaluated checklist was used to collect data from a total of 660 rooms comprising 80% of all the rooms in all the undergraduate hostels in UNEC, statistical package for social sciences (SPSS) was used to descriptively analyze the quantitative data collected while the qualitative data were analyzed using thematic synthesis. **Results**: The results of the analysis revealed that 74.1% (n=489) of the rooms were poorly ventilated, 85.2% (n=562) of the rooms lacked reading tables and 87.5% (n=7) of toilet plumbing were broken. The results however indicated adequacy of few facilities. Themes generated from the 30 students interviewed poorly described the hostel facilities.
Conclusion: The state and management practices regarding the undergraduate hostel facilities in UNEC is poor thereby exposing the occupants of these hostels to numerous health hazards while also giving them a feeling of dissatisfaction. An urgent declaration of a state of emergency on the hostel facilities in UNEC is highly recommended.
Keywords: Housing, Hostel facilities, Hygiene, Health, Students, Quality, Education, Condition.

CAROTID AND ABDOMINAL AORTA PLAQUE DISTRIBUTION IN A NIGERIAN GEREATRIC POPULATION

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Objectives: To sonographically determine the prevalence and distribution of carotid and abdominal aorta plaques among the geriatric population in Port Harcourt Metropolis, Rivers State.
Materials and methods: This prospective cross-sectional study was conducted between May and December 2021 at one government-owned and two privately owned diagnostic centers in Rivers State. Ethical clearance was duly obtained from a national ethics and research body. Convenience sampling was used to select 176 subjects aged between 65 and 91 years. Information obtained includes demographics, smoking and alcohol habits, blood pressure, and diabetic state. The abdominal aorta and carotid arteries were sonographically assessed in longitudinal and transverse planes with a 3.5MHz frequency curvilinear transducer on a GE Logiq V5 Expert (France, 2015) ultrasound machine. Data was analyzed using SPSS v 21 and results presented with tables and graphs. P value of 0.005 was used.
Results: The mean age of participants was 72.96±5.7. Plaques were prevalent among subjects aged between 71 and 80 years (21%; n = 36) and were seen more at the abdominal aorta (33.5%, n = 59) when compared to the carotid artery (6.3%, n = 11). Abdominal plaques were more common in males (21.0%, n = 37) than females (12.5%, n = 22), but carotid plaques were equally distributed for both genders. Carotid artery plaque positively correlated with weight and blood pressure but not with age and BMI. Abdominal aorta plaque demonstrated a positive correlation with age only but negatively correlated with BMI and blood pressure. There was no significant relationship between carotid artery plaques with age, smoking, alcohol consumption, and hypertensive disease. However, there was noted a significant relationship between abdominal aorta plaques with age (p=0.028) and hypertensive disease (p=0.037) only.
Conclusion: Abdominal aortic plaque has a higher prevalence than carotid artery plaque, and the sonographer was more likely to come across it among male geriatric populations. There is a need for further investigation on the potential stability of these plaques which will serve as a tool for assessment of patients with potential cardiovascular events.
Keywords: Atherosclerosis, abdominal aorta plaques, carotid artery plaques, geriatric population, Nigeria.



ASSESSMENT OF THE ATTITUDE OF WOMEN WITH BREAST CANCER TOWARDS RADIOTHERAPY TREATMENT

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ABSTRACT

Introduction: Radiotherapy is an indispensable modality in the treatment of patients with breast cancer. The aim was to determine the attitude of women with breast cancer towards radiotherapy treatment.

Materials and Methods: A prospective, cross-sectional study of patients who underwent radiotherapy treatment at University College Hospital Ibadan, University of Nigeria Teaching Hospital Ituku-Ozalla and National Hospital Abuja was carried out between April and August 2019. Ethical approval for the study was obtained from the Ethics Committee of National Hospital Abuja. Written informed consent was obtained from all the subjects. The Cronbach alpha test for internal consistency of items was applied in checking for the reliability of the instrument. The Cronbach alpha coefficient value was 0.82. A well-structured questionnaire was distributed to the patients. Data was analyzed using frequency, percentage and Pearson's correlation.

Results: A total of 102 female patients participated in the study. 46.1% (n=47) of the respondents were aged 46 years and above. Majority of the respondents (78.4%, n=81) showed a positive attitude towards radiotherapy treatment. There was no statistically significant correlation between patient's educational background and attitude towards radiotherapy (r=0.192, p=0.053).

Conclusion: Most of the patients with breast cancer had a positive attitude towards radiotherapy treatment with just a few that had a negative attitude. More efforts should be made by the health care providers to create a friendly and conducive environment which will further boost the attitude of women with breast cancer towards the treatment modality.

Key words: Breast cancer, Radiotherapy, Attitude

SATISFACTION WITH AND PERCEPTION OF PHYSIOTHERAPY TREATMENTS AMONG ADULTS WITH KNEE OSTEOARTHRITIS IN ENUGU METROPOLIS: A CROSS-SECTIONAL STUDY

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Introduction: Physical therapy is one of the most valued components of the rehabilitation team) and plays an essential role in management of osteoarthritis. However, its relevance will be best captured from patients' perspective. Hence, this study assessed the level of satisfaction with and patients; perception of physiotherapy among adults with knee osteoarthritis.

Materials & Methods: In this cross-sectional study, ninety patients with osteoarthristis undergoing physiotherapy were recruited from three tertiary health institutions in Enugu Metroplois. public hospitals in Enugu metropolis. The study as conducted as per the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) checklist. A cluster sampling was used to select the participating hospitals with conveniece sampling employed to select individual patients. A self-structured questionnaires namely Physical Therapy Patient Satisfaction Questionnaire and the Revised Patient Perception of Patient – Centredness (PPPC-R) questionnaire were used to assess satisfaction and perception, respectively. We included adults (18-80years) attending outpatient physiotherapy clinic. We excluded patients with history of knee replacement surgery and/or present with cognitive impairment.

Results: A total of ninety patients (females = 73.3% and male = 26.7%) participated in this study. The mean total score for the patients' level of satisfaction with and patients' perception of physical therapy were 63.86±0.36 and 41.09±0.29, respective.

Conclusion: Patients with osteoarthritis were moderately satisfied but had a fair perception of the use of physiotherapy for osteoarthritis.

Keywords: Physiotherapy, osteoarthritis, satisfaction, perception, Enugu metropolis



MALARIA EXPOSURE, ITS TREATMENT AND PREVENTION: KNOWLEDGE AND PRACTICE AMONGST STUDENTS OF ENUGU STATE UNIVERSITY COLLEGE OF MEDICINE (ESUCOM).

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Introduction: Malaria a major cause of hospital admission and absence from school among students, affecting their learning. This study aimed at ascertaining the knowledge, treatment and prevention of malaria among the students of Enugu State University College of Medicine (ESUCOM).

Material and Method: The study was of a cross-sectional descriptive design, with data collected by the researcher's designed questionnaire from 300 students (Medicine and Surgery-189, Medical Laboratory Science-30, and Anatomy– 81), from 200 to 600 level, Male (138) and Female (162), aged between 14 and 36 years, who were involved by stratified sampling technique. Data analysis was done by the descriptive statistics of frequency, percentage and diagrams (pie charts, bar charts and histogram), using the EPI info computing programme.

Results: On the knowledge of Malaria (presenting majority): high fever (69%) and headache (26%) as symptoms of Malaria; Cerebral Malaria and Laziness as complications of Malaria infection. Breeding mosquitoes: site– polluted water (74.5%), season– rainy (92.9%); Mosquitoes infected by biting infected person (76.8%). Treatment preferences: Treatment places– Pharmacy shop and Health Centers and Clinics (108), drugs - Paracetamol and anti-malaria and tepid sponge (62.6%); Source of drugs– Pharmacy Shops (76%), Patent Medicine Shops (10.4%) and Healthcare Institutions (9.4%); drug administration- Injections (62.7%) preferred to tablets (8.4%); Malaria drugs used- ACT (76.3%), Chloroquine (10.5%) and Fansidar (7.9%); availability of prescribed drugs- always (47.3%) and often (33.3%); Traditional medicine usage– rare (58.3%) and occasional (22.9%). Prevention and control strategies: avoiding stagnant water (36.5%), hygiene (29.2%), free waterways (22.9%). In order of preference (%): bed nets (33); door and window nets (29.8); insecticides (18.1); mosquito repellents (10.6), and coils and sticks (8.5).

Conclusion: The students have good knowledge of malaria, its treatment and prevention. Limited availability of drugs and poor health seeking-behaviour amongst the students (including self-medication) can be curbed by deliberate measures by health stakeholder can improve this situation.

Keywords: Malaria, Control, Students, Mosquitoes, drugs,

ASSESSMENT OF LEVEL OF UTILIZATION OF LUNG ULTRASOUND IN THE DIAGNOSIS OF PNEUMONIA AMONG SONONGRAPHERS IN NIGERIA.

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Introduction: Pneumonia is the highest killer of children in Nigeria. Its management requires imaging modalities like computed tomography, chest x-ray, and lung ultrasound (LUS). Lung ultrasound has demonstrated more sensitivity to the diagnosis of lung diseases than chest x-ray and clinical examination combined. This study assesses the utilization of LUS among sonographers in the management of pneumonia.
Materials and methods: This cross-sectional online questionnaire survey involved 213 practicing sonographers in Nigeria who consented to and filled online questionnaires sent to their personal and group WhatsApp between August 9th and September 20th 2022. A pilot study was conducted to determine the internal consistency of the items in the questionnaire and a Cronbach Alpha of 0.85 was obtained. Data was analyzed using SPSS software version 23. Descriptive statistics and inferential statistics were used to analyze the level of utilization and relationship between practice of LUS and level of education respectively.
Results: The majority of the respondents are males; between 31-40 years; B.Sc. holders; work in private establishment and are on full-time employment. Out of 213 participants, 150 (70.4%) have never practiced lung sonography. Also, of 63 (29.6%) that practiced LUS, majority have just practiced for 1-5 years. Major reasons for practicing LUS are interest, carving out a niche for themselves and making extra money while the major reasons for not practicing LUS are lack of skill, low referral and no formal training. No relationship between practice of LUS and level of education ($p > 0.05$) They recommended that practice of LUS should be made compulsory for sonographers while regulatory authorities should include it as part of their continuous development program.
Conclusion: Practice of LUS among Nigerian sonographers is low. Lack of skill and training are the major reason for such low utilization. This will negatively affect the management of patients with pneumonia.
Keywords: Assessment; Practice of LUS, Patients; Pneumonia; Sonographers

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