AFRICA CENTRE OF EXCELLENCE IN PUBLIC HEALTH AND TOXICOLOGICAL RESEARCH (ACE-PUTOR)

UNIVERSITY OF PORT HARCOURT
Choba, Nigeria

2022 ACE-PUTOR RESEARCH FAIR

Theme:
Advancing Scientific Medical Research in the 21st Century

Book of Abstracts

Date ▶ Thursday, 17th March, 2022

Venue ▶ School of Post-Basic Nursing, University of Port Harcourt Teaching Hospital
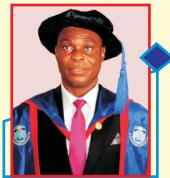
Time ▶ 9:00am to 4:00pm

Chief Host:
Prof Owunari Abraham Georgewill, Vice Chancellor, University of Port Harcourt

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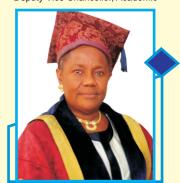**PROF. CLIFFORD OFURUM**
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NATIONAL ANTHEM

Arise, O compatriots, Nigeria's call obey
To serve our Fatherland
With love and strength and faith
The labour of our Heroes past
Shall never be in vain
To serve with heart and might
One nation bound in freedom,
Peace and Unity.

O God of creation, direct our noble cause
Guide thou our Leaders right,
Help our youth the truth to know
In love and honesty to grow
And live in Just and true
Great lofty height attain
To build a nation where peace and justice shall reign.

UNIPORT ANTHEM

On the green low land and swampy plain
Of the new calabar River Stands
The University of Port Harcourt;
A citadel of learning and excellent education
A home of Academic enthusiasts,
Searching, searching for knowledge and wisdom

Enlightenment and self-reliance, our mission,
Our hope in the future is rooted in God alone;
The vision of our fathers shining in the stars,
Opportunities, unlimited and equal,
Our progenies citizens of the universe,
From far and near, the pride of UNIPORT echoes.

REFRAIN:
Unique, Unique, Unique UNIPORT
Unique, Unique, Unique UNIPORT

Welcome and Introduction speech

On behalf of the management and staff of the Africa Centre of Excellence in Public Health and Toxicological Research (ACE-PUTOR), I welcome everyone to the 2022 PUTOR Research Fair. The African Centre of Excellence in Public Health and Toxicological Research (ACE-PUTOR) is a regional Centre established to promote collaboration and interdisciplinary research; improve the practice of public health, biochemistry, toxicology, and nursing; produce cutting—edge research projects to solve public health issues arising from oil and gas sectors and undertake consultancy and community services. The Centre is support by the World Bank Group (WBG), French Development Agency (AFD), the Association of African Universities (AAU) and the National Universities Commission (NUC).

The mission of the Centre is to provide a platform that will congregate highly skilled human resource both within and outside UNIPORT; build a robust resource of highly skilled and motivated public health professionals who are equipped with current knowledge, skills and competencies required to improve the training and practice in focused areas; produce cutting—edge research projects; and undertake consultancy and community services.

This fair will showcase some of the research conducted by MSc and PhD students in PUTOR and we employ you to support these students by providing constructive feedback on their work. This fair will also provide opportunities for networking with colleagues and up takers of research findings.

I hope you find very moment of time you spend here richly rewarding and you can keep in contact with us through aceput@uniport.edu.ng and visit our website (www.aceputoruniport.edu.ng) for interesting information and details on how you can partner with us.

Thanks once more for your presence in this meeting and God bless you

Prof Daprim Ogaji
Centre Leader

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Section 1: Abstracts from PhD Research

G2018/PUT/PHD/EVH/FT/002: Environmental Exposures and Health effects of Polycyclic-Aromatic-Hydrocarbons (PAHs) Pollution due to Artisanal Refining of Crude Oil in Bayelsa, Nigeria
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ABSTRACT

Introduction: Artisanal crude oil refining results in deposition of PAHs and soot into the environment with consequent environmental pollution, human exposures and health problems. Considering the need for evidence in this regard, this study characterized the environmental exposures and health effects of pollution due to artisanal refining of crude oil in Bayelsa State, Nigeria.

Methods: This study utilized a comparative cross-sectional design and was conducted in 3 Local Government Areas in Bayelsa State. Sample size of 615 was proportionately distributed across the communities and multistage sampling was used to select respondents. A detailed questionnaire [index of internal consistency (r= 0.93)] was used to elicit relevant data and environmental samples were obtained from the communities for estimation of PAHs concentration using the GC-FID. Data analysis was done using the SPSS version 23. Descriptive and inferential statistics were generated and p-value $\leq$ 0.05 was considered statistically significant. Consent, confidentiality, and privacy were upheld.

Results: Mean PAHs concentration in water were Sampou 3.50±4.51 μg/l, Gbarain 1.76±4.35 μg/l and Nembe 1.90±4.20 μg/l. Mean PAHs concentration in fish were Sampou 5.62±5.92 μg/kg, Gbarain 3.81±5.57 μg/kg and Nembe 4.61±5.33 μg/kg. THQ for fish/water consumption was < 1. Mild to moderate neurological and respiratory disease symptoms were experienced by 79.8% and 49.6% of the respondents respectively. Inferential statistics showed higher risk of presenting with neurological toxicity symptoms in Nembe (O.R.: 3.293, p-value: 0.001). Respiratory disease symptoms were predicted to more likely be found among females (p: 0.037), smokers (p: 0.003) among others.

Conclusion: Artisanal refining of crude oil activities are potential sources of environmental pollution and human exposure to PAHs in Bayelsa State. Constant environmental monitoring of PAHs levels as well as the use of more environmentally safe cooking and waste-disposal methods are recommended.

Key words: Polycyclic-aromatic-hydrocarbons, artisanal-refining, crude oil, health effects, Bayelsa.

G2018/PUT/PhD/EVH/FT/003: Heavy Metals and Non-Communicable Diseases among people living with HIV/AIDS in Niger Delta, Nigeria
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ABSTRACT

Introduction: Though HIV is a global pandemic, Nigeria retains the second largest pool of HIV infection in the world. Furthermore, Niger Delta residents are constantly exposed to contamination from heavy metals due to continuous oil and gas exploration. The possible contribution of the concentration of heavy metals in the body to the development of non-communicable diseases (NCDs) among people living with HIV (PLWHA) in Nigeria has received little attention. This research assessed the body concentration of heavy metals in PLWHA and to evaluate potential link with the occurrence of NCDs.

Methods: In this comparative cross-sectional study, 185 consenting participants were enrolled from 2 tertiary hospitals in Port-Harcourt, South-South (Niger Delta) and a tertiary hospital in Ibadan South-West Nigeria. The participants included 104 HIV-positive cases and 81 HIV-negative controls. Levels of heavy metals, both toxic (lead; Pb, cadmium; Cd) and essential (copper; Cu, zinc; Zn, iron; Fe) in blood were determined using Atomic Absorption Spectroscopy (AAS). Inflammatory and oxidative DNA damage biomarkers were determined using ELISA. Data were analyzed using Pearson's correlation coefficient and ANOVA at p = 0.05. Ethical approval was obtained from the appropriate research committees.

Results: Elevated levels of Pb and Cd and decreased Cu, Fe and Zn were observed in HIV-infected subjects in Niger Delta compared with HIV-negative controls. There was a significant increase in prevalence of NCDs among HIV-positive subjects compared to HIV-negative controls (p=0.015).

Conclusion: This study suggests evidence of an association of body concentration of heavy metals and the occurrence of NCDs among PLWHA.

Keywords: HIV, heavy metals, non-communicable diseases, biomarkers, Niger Delta.

G2018/PUT/PhD/EVH/FT/004: Microalbuminuria: An Early Biomarker of Kidney Disease Among Residents in Oil and Non-Oil Producing Communities in Rivers State

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ABSTRACT

Background: Microalbuminuria is a precursor and early biomarker for chronic kidney disease, a huge but neglected public health problem with a global prevalence estimated between 8-16%, and leads to catastrophic health expenditures for individuals, families, and communities. Chronic environmental exposure to nephrotoxins from crude oil exploration activities is an emerging health issue and has been strongly implicated in the multi-faceted etiology of kidney disease. However, there is a paucity of data on the occurrence of kidney disease in rural communities in Rivers State. This study is aimed at comparing the prevalence of albuminuria in rural oil and non-oil producing communities in Rivers State.

Methods: This was a community-based comparative cross-sectional study using multi-stage random sampling in oil and non-oil polluted communities in Gokana and Ikwerre local government areas respectively and involved 760 participants (380 in each group). Kidney disease was assessed using albumin and creatinine assays from random morning spot urine. Microalbuminuria (albumin-creatinine ratio (ACR) of 3-30mg/mmol was considered positive for kidney disease. Chi-square test was used to compare the prevalence of microalbuminuria among the two communities. Ethical approval is obtained from the University of Port Harcourt.

Results: The prevalence of microalbuminuria among residents in the oil-polluted & non-oil polluted communities were 40.8%and 26.6%respectively. The difference in the prevalence of microalbuminuria among the study groups was statistically significant (X^2 = 17.176, p=0.0001).

Conclusion: There was a higher prevalence of microalbuminuria in the oil-polluted community compared to the non-oil polluted community with a statistical significance of p   0.05.

Key words: kidney disease, microalbuminuria, nephrotoxin

G2018/PUT/PhD/EVH/FT/005: Assessment of risk perception of air particulate pollution and extreme temperature on human heath of residents of Port Harcourt Rivers State

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ABSTRACT

Background: Climate change impacts on public health through its influence on air quality, temperature variations and other weather events. The aim of this study is to assess risk perception of air particulate pollution and extreme temperature on human heath of residents of Port Harcourt Rivers State.

Materials and Methods: The study was conducted among residents in Port Harcourt metropolis, Rivers State. This is descriptive cross-sectional study. The included residents who are 18 years and above and have lived in Port Harcourt metropolis for at least 1 years. Residents who were critically ill at the time of this study and visited the state were excluded. A multi-stage sampling method was used to recruit 776 participants. An air monitor equipment (Aerocet 531S Met One High Volume sampler andExtech 4-in-1 meteorological meter with model number 45170) were used to measure the air particulate matter of the environment. Afterwards, a semi-structured questionnaire was used to grant interview and obtain responses from the participants in the same locations. The questionnaire pre-tested with a sample size of 78 which is the approximate 10% of the original sample size. Data collected were entered into the Statistical Package for Social Science (SPSS) version 25 (IBM, Armonk, New York, USA) as numeric codes and analysed. Ethical clearance for the study was obtained from the Ethics Committee of University of Port Harcourt and informed consent was obtained from all participants who took part in the study.

Result: The findings revealed that the average values of the PM_1 (31.9 µg/m3 vs15 µg/m3), $PM_{2.5}$ (40.8 µg/m3 vs25 µg/m3), PM_4 (51.9 µg/m3 vs 35µg/m3), PM_7 (75 µg/m3 vs 40 µg/m3), PM_{10} (170.4µg/m3 vs 50µg/m3) and TSP (111.0µg/m3 vs 60-90 µg/m3) in all the locations were very high and exceeded the acceptable limit. Also, there was high level of perceived risk of health impact of air particulate pollution (74.5%) and extreme temperature (71.6%) on the residents of Port Harcourt who participated in the study.

Conclusion: There was a high level of air particulate pollutants above the permissible limit. This indicated a corresponding perceived risk of health impact of air particulate pollution and extreme temperature on the participants in the study. The Government and NGOs should use this finding as a guide to plan public health interventions to prevent and control the health impact of exposure toair particulate pollution and extreme temperatures in vulnerable population in Nigeria.

Key words: Risk perception, air particulate pollution, extreme temperature, human heath, Port Harcourt.

G2018/PUT/PhD/EVH/FT/008: Systematic Review of Exposure to Polycyclic Aromatic Hydrocarbons and Obstructive Lung Disease

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Background. There is fast-growing epidemiologic evidence of the effects of environmental chemicals on respiratory health. Polycyclic aromatic hydrocarbons (PAHs) have been linked with airway obstruction common in asthma and/or asthma exacerbation, and chronic bronchitis and emphysema.

Objectives. A systematic review of the association between exposure to PAHs and obstructive lung diseases is not yet available. The present systematic review aims to evaluate the evidence available in epidemiological studies that have associated PAHs with obstructive lung diseases such as asthma, chronic bronchitis, emphysema.

Methods. We performed a systematic literature search on PubMed, Google Scholar, and Scopus databases using relevant keywords and guided by predesigned eligibility criteria.

Results. From the total of 30 articles reviewed, 16 articles examined the link between PAHs and lung function in both adults and children. Twelve articles investigated the association between PAHs and asthma, asthma biomarkers, and/or asthma symptoms in children. Two articles studied the relationship between PAHs and fractional exhaled nitric oxide (FeNO), a biomarker of airway inflammation and the relationship between PAHs and obstructive lung diseases and infections, respectively. One study assessed exposure to daily ambient PAHs and cough occurrence. Twenty-seven studies found an association between PAHs and asthma and reduced lung function. In children, it is reinforced by studies on prenatal and postnatal exposure, whereas in adults, reductions in lung function tests marked by low forced expiratory volume in 1 second, (FEV1), forced vital capacity (FVC), and forced expiratory flow (FEF25-75%) were the major health outcomes.

Conclusions. The literatures reviewed in the present study largely suggest positive correlations between PAHs and obstructive lung diseases marked mainly by asthma and reduced respiratory function.

Keywords: polycyclic aromatic hydrocarbons, lung function, asthma, chronic obstructive pulmonary disease, FEV1

G2018/PUT/PhD/EVT/PT/001: Causes, Health Effects and Adaptation to Soot Pollution in the Niger Delta: A Perception Study

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ABSTRACT

Introduction: In the Niger Delta region of Nigeria, soot pollution is a common consequence of oil and gas exploration impacting both human and ecological health. This perception study employed the self-reporting technique in determining the causes, health effects and adaptation to soot pollution in the Niger Delta.

Methods: This study was conducted in Rivers, Delta, Edo, Bayelsa and the FCT (control). The study adopted a cross-sectional design. The instrument for data collection was a structured questionnaire. The questionnaire comprised of 50 questions grouped into 7 sections. Average overall face validity of the instrument was 95% with a reliability co-efficient of 0.87. Sample size was determined using Taro Yamane's equation. Descriptive, inferential and two-step cluster analysis were employed as data analysis techniques.

Results: A total of 2249 participants responded to the questionnaire. Of these, 78.8% were residents while 21.2% were visitors. Most respondents lived in urban areas (66.7%) and were predominantly graduates (52.2%). 80% of respondents had observed soot pollution. The causes of the soot pollution were: Artisanal refining (kpo-fire) (56.3%), gas flaring (48.3%), burning of confiscated crude oil and acts of sabotage (48.3%), activities of oil, gas, and construction companies (39.4%), burning of tyres and rubber-based materials (39.4%). The effects of soot pollution were: Breathlessness, cough and nasal irritation (63%), worsening of existing asthma (29.5%), skin irritation (55.3%). Residents adapted to soot pollution by: Relocating (19.8%), leaving windows and doors closed (35.7%), regular cleaning of surfaces (61%), regular bathing (45.1%) and reduction in outdoor activities (13.2%). A strong positive correlation (r = 0.593) existed between the period of residency and reported effects of soot pollution.

Conclusion: Soot pollution is impacting negatively on health outcomes and livelihood. There is an urgent need to engage all relevant stakeholders in controlling and mitigating impact of soot pollution in the region.

Keyword: Soot, pollution, particulate matter, oil and gas, Niger Delta.

G2018/PUT/PhD/EVT/FT/002: Prosopis africana effects on Low-Dose Heavy Metal Mixture-Induced Alterations in Lipid Profile and Hematological Parameters of Male Albino Rats

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ABSTRACT

Introduction: Oil field workers are constantly exposed to several environmental pollutant including heavy metals mixture (HHM) which consequently poses serious threat to public health. This warrants the need to study the health impacts of HHM exposure and possible remedy.

Methods: 56 male albino Wistar rats were divided into eight weight matched groups (n=7). This includes normal (group 1) and toxic (group 2) controls received deionized water and metal mixture; (Lead (II) acetate Pb (20 mg/kg body weight), Mercury chloride Hg (0.40mg/kg body weight), cadmium chloride Cd (1.61mg/kg body weight and sodium arsenite as (10.0mg/kg body weight) only for 60 days.), respectively. Albino Wistar rats in groups 3, 4, and 5 were given HHM and Prosopis Africana (PA) (500, 1500, and 1500mg/kg, respectively), and groups 6, 7 and 8, received HHM like in group two (2) but was treated with 0.8 mg/kg body weight of zinc chloride, 1.5 mg/kg body weight of sodium selenite   and combination of both respectively. All treatments were administered through oral gavage for 60days. Data analysis was done using the SPSS version 23. Descriptive and inferential statistics were generated and $p<0.05$ was considered statistically significant. Animal research ethics was observed.

Results: Low dose HMM caused a marked increase ($p<0.05$) in total cholesterol, triglyceride, low-density lipoprotein levels and decreases in; high-density lipoprotein, percentage body weight gain, feed and fluid intake. Also, significant decreases in red blood cell count, haemoglobin, and packed cell volume. A significant increase in total white blood and platelet counts were observed in metal mixture exposed group. But in PA treated groups, their levels were found to attain almost normal values as found in normal control which is like zinc, selenium and zinc-selenium mixture treated groups.

Conclusion: PA could be a promising agent in improving lipid profile and hemodynamic picture in cardiovascular diseases and blood dyscrasias due HHM exposures.

Key words: Prosopis Africana, Low-Dose Heavy metals, Metal Mixture, lipid profile, haematological parameters.

G2018/PUT/PhD/EVT/FT/007: Ameliorative Effect of Musa cavendish Peel Extract on Heavy Metal Mixtures Induced Alteration in Brain Acetylcholinesterase

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Introduction: Heavy metal-induced neurotoxicity has been suggested to cause imbalance in cholinergic systems. The pathological mechanisms associated with metal mixtures neurotoxicity are poorly understood, but several reports have established that it is mediated by changes in acetylcholinesterase (AChE) activity which results in oxidative stress. The activity of AChE is one of the most important indicators of cholinergic function. Exogenous variables such as diet and heavy metals affect AChE activity which can disrupt neurotransmitter signaling. Increased AChE levels in plasma and the brain are some signs of metal-induced brain barrier.

Method: Thirty-five female albino rats of 6-8 weeks were divided into 5 groups; group 1 (control) was given only deionized water, group 2 were treated with a metal mixture of aluminum, manganese, mercury and lead while groups 3, 4 and 5 were treated with metal mixture and 200mg/kg, 400mg/kg and 600mg/kg of Musa cavendish peel extract respectively for 60 days. Brain samples were collected after the animals were anaesthetized with diethyl ether, the brains were dissected for the hippocampus, cerebral cortex, olfactory lobe and cerebellum sections and homogenized in cold phosphate buffer saline before centrifugation; the supernatants were used to assay AChE using an improved version of the Ellman method.

Result: There was a substantial increase in the brain AChE activity in the brains of rats exposed to only heavy metal mixture ($P < 0.05$). The control group demonstrated significant inhibition of AChE activity in the brain region ($P < 0.05$). The administration of M. cavendish peel extract to the exposed groups were effective in lowering the AChE activity irrespective of the dose given.

Conclusion: Metal mixture induces neurotoxicity through increased levels of AChE activities and oxidative stress. M. cavendish peel extract proved to have a neuro-protective effect by reversing the toxicity of metal mixtureand lowering AChE activity in metal mixture exposed groups.

Key words: Neuroprotection, Acetylcholinesterase, Metal mixture, Neurotoxicity

G2018/PUT/PhD/EVT/FT/008: Ameliorative effect of banana peel extract and essential elements on heavy metals mixture-induced ocular toxicity

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ABSTRACT

Background: Developing nations with crude oil reserves have experienced the double-edged consequences of industrialization. While there have been pockets of benefits like provision of jobs, development has also meted-out pollution of environment and loss of livelihoods. The Niger Delta region has been bathed with oil spills which lead to human exposures to heavy metals from crude oil. Impacts of pollution from individual associated metals from industrial activities have been well documented but there is paucity of information on the synergistic implications of heavy metals mixtures (HMM) in the human body. In this study, the effects of exposure to different doses of HMM (Pb, Al, Mn and Hg), the role of banana peel extract and essential elements (Zinc and Selenium) on the eyes of Wistar albino rats were investigated. The study aimed to identify the synergistic effects of the HMM on ocular pathology of the rats; and also, to investigate whether or not banana peel extract and essential elements had any effect on the accumulation of these metals on the eyes.

Methods: The animals were 60, 4-weeks old female rats, selected into 8groups (group1, being control and groups2-8, being the test groups). Comparative analysis was conducted across all groups, result revealed that group2 rats accumulated more metals than groups 3-8. ANOVA provided sufficient evidence to reject the null hypothesis that there was no significant difference in the mean concentrations of accumulated metals. Tukey multiple comparison tests (TMCT) was employed to establish the significant difference in the accumulation of these metals.

Results: Both the extract and essentials metals significantly reduced NO and MDA levels in the eyes, leading to reduction in oxidative stress and both treatments increased SOD and CAT

Conclusion: The treatments have the ability to protect the eyes from oxidative damage from HMM.

Keywords: Banana peels, ocular toxicity/pathology, metals mixture, pollution

G2018/PUT/PhD/NBT/FT/001: Red Cabbage Ameliorates Hypercholesterolemia and Atherogenic Indices in Water-Soluble Fractions of Spent Crankcase Oil-Induced Toxicity in Male Rats

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ABSTRACT

Introduction: Spent crankcase oil (SCO) contains a cocktail of metals and polycyclic aromatic hydrocarbons (PAHs), passed on to the associated water-soluble fractions (WSF); and studies show that exposure to low dose heavy metals could cause a rise in the triglycerides (TG), total cholesterol (TC), low-density lipoproteins (LDL), and very-low-density lipoproteins (VLDL) concentrations; salient markers of cardiovascular disease. Studies also present the red cabbage (RC) vegetable to be rich in phenolic compounds with potent hypolipidemic effects. Hence, this study sought to estimate the changes in the lipid profile and atherogenic indices of male Wistar albino rats exposed to the WSF of SCO and treated with aqueous extracts of RC for 60 and 90 days.

Methods: 64 male Wister albino rats divided into 8 groups (8 animals each) were orally administered 1ml of deionized water, 500mg/kg aqueous extracts of RC, 1ml of 25%, 50%, and 100% WSF of SCO daily for 60 and 90 days, while alternate groups were given the aqueous extracts and the stated percentages of the WSF. After the exposure periods, serum TG, TC, LDL, and VLDL concentrations were analyzed using appropriate kits and the results were used to estimate the atherogenic indices (non-HDL, cardiac risk ratio, atherogenic coefficient, and atherogenic index).

Results: Whilethe 60days study presented a non-significant (P<0.05) difference in the TG, and VLDL levels in the exposed groups compared to the control and the treated groups, a significantly (P<0.05) elevated LDL was recorded for the exposed groups (78.06±3.89, 74.32±3.39, 74.80±6.08), in higher levels than the treated groups (40.60±6.07, 48.22±6.34, 66.75±2.97), compared with the control (27.85±4.24). All parameters, except the HDL level, increased after 90 days in the 100% and 25% exposed groups compared to the control and the RC treated groups.

Conclusion: RC extracts can act as a good hypolipidemic agent in WSF of SCO hyperlipidemic potentiating events.

Key Words: spent crankcase oil, red cabbage, lipid profile

G2018/PUT/PhD/NBT/FT/003: Antioxidant defense system in lungs of rats treated with Camellia sinensis (tea plant) and exposed to petrol fumes

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ABSTRACT

Introduction: Exposure to petrol fumes have attributed to defects in the heart, lungs, skin and kidneys causing different genotoxic, mutagenic, immunotoxic, carcinogenic and neurotoxic manifestations. Camellia sinensis (tea plant) possess antioxidant, anti-inflammatory properties.

Methods: Forty-eight Wistar albino rats were grouped into: G1 (control) G2 (exposed not treated), G3, G4, G5 (treated with aqueous drink of 500mg/kg b.w, 1000 mg/kg b.w and 1500 mg/kg b.w respectively), G6, G7, G8 (treated with methanol extract of 500mg/kg b.w, 1000 mg/kg b.w and 1500 mg/kg b.w respectively). Test groups were exposed to petrol fumes for 6 hours a day, 6 days a week for 60 days.

Results: After 30 days' catalase levels in G6, G7 were significantly increased (p<0.05) when compared to G1 and G2 while G8 was significantly reduced (p<0.05) when compared to G2. MDA levels G4 was significantly increased (p<0.05) when compared to G2. Gluthathione levels of G3, G4, G5, G6, G7 and G8 increased significantly (p<0.05) when compared to G1 whereas G4, G6, and G7 were also significantly increased (p<0.05) when compared to G2. After sixty days, MDA levels of G4 and G5 were significantly higher (p<0.05) when compared to control and also G4 was significantly higher (p<0.05) when compared to G2. GSH levels of G4 was significantly higher (p<0.05) when compared to G1 whereas G5, G6, G8 were significantly lower when compared to G2. SOD levels of G2, G3, G5 were significantly higher when compared to G1 whereas G4, G6, G7 were significantly lower when compared to G2.

Conclusion: Antioxidant capacities of Camellia sinensis aqueous drink and methanol extract were expressed better at thirty days whereas the aqueous drink was more beneficial at sixty days. This could be due to alcoholic effect of methanol or bioaccumulation of more ROS that overwhelmed the function of the tea drink and extract.

Key words: Petrol fumes, Exposure, Oxidative stress, inflammation.

G2018/PUT/PhD/NBT/FT/004: In vitro antioxidant and anti-hemolytic properties of total flavonoids purified from Psidium guajava leaf extract

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ABSTRACT

Introduction: The mechanism of heavy metal-induced toxicity has been linked to increased cellular oxidative stress often caused by an increase in cellular ROS generation or due to impairment of endogenous antioxidants. Flavonoids have been reported to possess potent in vitro and in vivo antioxidant activities. This study investigated the prospect of purifying total flavonoids from guava leaves as well as assesses the in vitro antioxidant and anti-hemolytic activities of the guava flavonoid-rich extracts.

Methods: Total flavonoids were purified using Macroporous Adsorptive Resins (MAR). Antioxidant activities were assessed using the 2,2-diphenyl-1-picrylhydrazyl (DPPH) radical scavenging and Ferric Reducing Ability of Plasma (FRAP) assays. The anti-hemolytic effect was assessed using Pb-exposed human RBC.

Result: Using AB8 MAR with an extract loading concentration of 15 mg crude extract/g resin, adsorption time of 45-minute, eluent ethanol concentration of 50 % (v/v) and elution time of 40 minutes, a 2-fold improvement (i.e., from 36 % to 73 %) was achieved in the flavonoid content of guava leaf extract. The DPPH radical scavenging activity, FRAP activity and anti-hemolytic effects of GFE were improved by 1.48, 1.60, and 1.40 folds respectively, following flavonoid enrichment.

Conclusion: MAR therefore presents a cheap and effective way of improving the flavonoid contents, the antioxidant, and anti-hemolytic activities of guava leaf extract. This may be useful in ameliorating heavy metal-induced oxidative stress.

Keywords: Flavonoids, Guava, Antioxidant, Macroporous adsorptive resins

G2018/PUT/PhD/NBT/FT/006: Harunganamadagascariensis stem back extract abates hepatotoxic and testicular damage by DD-force in albino rat

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ABSTRACT

Introduction: Agricultural and anthropogenic activities has been implicated in environmental pollution over the year which has posed increasing concern in public health. Agro-chemicals including organophosphate of which dichlorvos popularly known as DD-force in south-eastern Nigeria is a major chemical used for the control of pest infestation, fumigation and storage of food material. This research was design to investigate the mitigative potential of Harunganamadagascariensisstem back extract on DD-force induced toxic damage in male albino rats.

Method: Sixty (60) weight matched rats were grouped into 5 cages of 12 rats each and fed on rat chow and water ad libitum. Group 1 was the control while group 2 was the toxic control group alone (DD-force). Group 3, 4, and 5 received low, medium and high doses of HM concurrently with the toxicant. Oral gavage was adopted for the study for two months. The rats were humanely sacrificed under diethyl ether anaesthesia and blood sample, liver and reproductive organs (testis and epididymis) harvested for analysis using standard procedures. Biochemical, enzymatic and non-enzymatic parameter, histopathological examination and morphological changes were observed.

Result: The result showed sequential decline of antioxidant parameters (GSH, SOD, CAT, GPx) and increased oxidative stress parameter (MDA) in liver and reproductive organs but was subsequently restored in dose dependent manner. Biochemical parameter equally showed increased trend as above and morphological changes were observed. Reproductive hormones (FSH, LH, TES) and semen analysis results which showed significant decline by DD-force toxicity was dose dependently increased by HM administration.

Conclusion: Findings validated the ameliorative potentials of HM against DD-force induced toxicity in male albino rats.

Keywords:Harunganamadagascariensis, dichlorvos, abate, oxidative stress, antioxidant, public health, hepatotoxic.

G2018/PUT/PhD/NBT/FT/007: Ameliorative Potential of Locally Formulated Complementary Diets on Weanling Wistar Rats Exposed to Petrol Fumes

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ABSTRACT

Introduction: This study investigated the ameliorative potential of locally formulated weaning diets from maize, millet, guinea corn soybean, crayfish, tiger nut, date palm and Moringa oleifera leaf powder on weanling wistar rats exposed to petrol fumes.

Methods: Thirty-five weanling rats weighing 45-70 g were divided into seven (7) groups of five (5) rats. Experimental animals exposed to petrol fumes for 4 hours daily in an exposure chamber. Group 1-4 animals were fed 10g of the different diet formulation while Group 5,6 and 7 were fed corn-starch, Cerelac and rat-chow respectively for 30 days. Rats fed normal rat-chow were not exposed to the petrol fumes. Hematological indices, hepatic, renal functions, lipid profile, antioxidant markers, oxidative and inflammatory markers were investigated in treatment groups relative to the control.

Results: Group 2 and 4 animals showed significant (p<0.05) improvement in the hematological indices relative to the negative control. Rats fed the locally formulated diets demonstrated a protective effect on the hepatic as well as the renal function when compared with the control groups. The antioxidant biomarkers were significantly enhanced while the oxidative compared with the negative control.

Conclusion: Results in this study has demonstrated that addition of Moringa oleifera leaf powder to weaning diets improved the ameliorative potential of such diets on weanling rats exposed to petrol fumes.

Keywords: Ameliorative potential, Antioxidant biomarkers, Oxidative stress markers.

G2018/PUT/PhD/NBT/FT/009: Ameliorative influence of rice husk extract against Nephrotoxicity and hepatotoxicity induced by high-dose codeine intake in male Albino rats

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ABSTRACT

Introduction: Rice husk is a by-product generated largely from rice milling. Codeine in this study was considered a drug and not as an analgesic due to its recent alarming abuse. The study investigated the ameliorative activity of methanol extract of rice husk against codeine-induced toxicity on the liver and kidney of male albino Wistar rats.

Method: To realize this point, forty-eight (48) albino Wistar rats weighing between 100 -110g. were utilized and weight-matched animals were assembled into 6 groups of 8 rats per group. Group I served as the normal control (NC); Group II received 10mg/kg of codeine only; Group III received 500mg/kg of the rice husk extract (RHE) only; while Groups IV, V, and VI were administered combination of 10mg/kg codeine and RHE concurrently at three different concentrations of 250,500,1000mg/kg body weights respectively

Results: The result revealed that co-treatment of rats with RHE at different doses of 250, 500, and 1000mg/kg body weight for 30 days significantly ameliorated the codeine-induced hepatic and renal damages as recorded by the liver markers (AST, ALP, ALT, total protein, albumin, conjugated and total bilirubin); and kidney markers (urea, creatinine, and electrolytes) respectively. Also, codeine-induced inflammation was recorded by increased activity of tumor necrosis factor alpha (TNF-α) and decreased activity of interleukin-10 (IL-10). These inflammatory markers were restored with the treatment of RHE. The biochemical changes recorded by RHE were in line with the histopathological observations recorded from the liver and kidney tissues suggesting a hepato-renal ameliorative potential of RHE in a dose-dependent manner.

Conclusion: The ameliorative effect of the RHE against codeine-induced hepato-renal toxicity may be applicable in preventive/management of codeine-induced organ damage or injury. However, isolated bioactive compounds of RHE will be a promising therapeutic agent against hepato-renal damage/injuries. Thus, a new path for further research.

Keywords: Codeine-toxicity, hepato-renal dysfunction, inflammation, rice husk extract.

G2018/PUT/PhD/NBT/FT/002: FMS-like Tyrosine Kinase 3 Inhibitors with Better binding Affinity and ADMET Properties than Sorafenib and GILTERITINIB for the Treatment of Acute Myeloid Leukemia: Molecular Docking Studies

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ABSTRACT

Background: The need for new and effective drug against fms-like tyrosine kinase 3 (FLT3) induced acute myeloid leukemia (AML) is timely. Over 30-35% of patients down with AML are caused by mutations of FLT3-ITD and FLT3-TKD which keeps the protein activated while it activates other signaling proteins downstream that are involved in cell proliferation, differentiation, and survival. As drug target, many inhibitors are already in clinical practice. Sadly, the average overall survival rate for patients on medication suffering from AML is 5 years despite the huge efforts in this field.

Objective: To perform docking simulation and ADMET studies on selected phytochemicals against FLT3 protein receptor for drug discovery against FLT3 induced AML.

Methods: Molecular docking simulation was performed using human FLT3 protein target (PDB ID: 6JQR) and 313 phytochemicals with standard anticancer drugs. The crystal structure of the protein was downloaded from the protein data bank and prepared using Biovia Discovery Studio. The chemical structures of the phytochemicals were downloaded from the NCBI PubChem database and prepared using Open Babel and VConf software. Molecular docking was performed using PyRx on Autodock Vina. The ADMET properties of the best performing compounds were calculated using Swiss ADME and pkCMS web servers.

Results: The results obtained showed that glabridin, ellipticine and derivatives (elliptinium and 9-methoxyellipticine), mezerein, ursolic acid, formononetin, cycloartocarpesin, hypericin, silymarin, and indirubin are the best performing compounds better than sorafenib and gilteritinib based on their binding affinities.

Conclusion: The top performing compounds which had better binding and ADMET properties than sorafenib and gilteritinib could serve as scaffolds or leads for new drug discovery against FLT3 induced AML.

Keywords: FMS-like tyrosine kinase 3, acute myeloid leukemia, FLT3, FLT3-ITD, FLT3-TKD, mutation, molecular docking simulation, ADMET.

G2018/UPH/SPH/PHD/EPID/FT/014: Validity of vaginal self-collected samples for Human Papillomavirus detection among underserved women in rural Delta State

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ABSTRACT

Background: With the emergence of human papillomavirus (HPV)-based primary screening as recommended by the World Health Organization, the option of self-collection where the woman takes sample from the vagina herself may overcome the barrier of speculum examination. Despite evidence of high acceptability of self-collection, there is need to evaluate the validity of such samples for HPV detection. The objective of this research was to determine the validity of self-collected vaginal samples for HPV detection among Nigerian women.

Methods: A cross-sectional analytic study was conducted among 230 asymptomatic women, selected by multi-stage sampling method in Orhuwhorun community, Udu Local Government Area of Delta State between May to June 2021. Participants were instructed on self-collection (SC) of vaginal samples using Hybribio female sample collection kit and a clinician-collected (CC) cervical sample was obtained using a similar swab. Paired specimens were tested for HPV using the 21 HPV GenoArray Diagnostic kits. SPSS vs 25 was used for data analysis. Agreement between the two collection methods was calculated using concordance and discordance rates and Cohen's kappa statistic. A 2 by 2 contingency table was used to determine the sensitivity and specificity of both sampling methods. A $p < 0.05$ was considered statistically significant.
Results: 230 women of mean age 41.08 years (SD ± 8.45) were enrolled and 228 paired SC and CC results were analyzed. Of the 228 samples, 44 (19.3%) and 48 (21.1%) had HPV on clinician-collected and self-collected samples respectively. HPV detection concordance was 92.9% (95%CI: 89.7–96.3), Kappa value of 0.66 ($p < 0.001$), showing substantial agreement. Sensitivity and specificity of SC compared to CC were 86.4% (95%CI: 76.2–96.5) and 94.6% (95%CI: 91.3–97.8) respectively.
Conclusions: The excellent performance of SC support its use for HPV screening among Nigerian women, hence, should be considered in cervical cancer screening programmes.
Keywords: Human papillomavirus, self-collection, clinician-collection, cervical cancer, Delta State.

UPH/SPH/EPID/PhD/2018/FT/007: Gestational diabetes mellitus and offspring's nutritional status

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Introduction: Gestational diabetes mellitus (GDM) is a major public health and pregnancy problem. It has been reported that GDM affects 1%–14% of all pregnancies with a steady increase. GDM has been associated with the incidence of childhood overweight/obesity.This study was aimed at comparing the nutritional status using BMI of offspring of mother's with GDM with those without GDM as there is a dearth of knowledge on the trend.
Methods: A prospective cohort study where 101 women alongside their offspring's who attended antenatal clinic from 2018-2019 at UPTH were recruited. 53 males and 48 female offsprings participated in the study. Questionnaires that entail variables such as socio-demographic and risk factors of GDM was administered. Child weight and height was also measured using standardized instrument. Body mass index (BMI) was calculated by dividing the weight in kilograms by the height in meters squared. Ethical approval was gotten from University of Port-Harcourt Ethics Committee.
Results: Results from the study indicates that the incidence of childhood overweight/obesity is more prevalent amongst mothers with GDM as 14 (13.9%) was reported as against 9 (8.9%) amongst non-GDM group.
Conclusion: The study showed that a higher percentage of childhood overweight/obesity is more with the GDM mothers. One of the risk factors for GDM is macrosomia. Various research has shown that overweight/obese children have a higher likelihood to be overweight/obese adults. It is therefore imperative that government should set up policies that will enlighten the public, fund more research to be done on GDM, introduce interventions that will promote lifestyle and dietary changes to curb the menace caused by poor glycemic control during pregnancy.
Key words: gestational diabetes mellitus, GDM, childhood, overweight, obesity, BMI.

G2018/SPH/PhD/EPID/PT/015: Prevalence of Myocilin Gene Mutation in Adult-Onset Primary Open Angle Glaucoma and Non-Glaucoma Subjects of Rivers State Origin

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ABSTRACT

Introduction: Glaucoma is a group of optic nerve disorders with characteristic visual field defects due to the death of retinal ganglion cells. It is the leading cause of irreversible blindness incapacitating over 80 million people worldwide and about 2 million people in Nigeria. Gene-Linkage-based studies have identified several genes associated with POAG:Myocilin, Optineurin, Tank-Binding Kinase (TBK1) and APbb2 mainly among Caucasian and few Black populations.

Objective: The aim of this study is to investigate the prevalence of myocilin gene mutation in adult-onset primary open angle glaucoma patients and non-glaucoma subjects of Rivers State origin and show its relevance as a biomarker for the diagnosis of adult-onset POAG.

Methods: In this comparative cross-sectional study, 393 POAG patients attending the Glaucoma Clinic at the University of Port Harcourt Teaching Hospital, were compared with 393 sex and age matched phenotypically normal participants. Clinical assessment of participants combined with findings from clinical records and interviewer-administered semi-structured questionnaire were used. Samples of venous blood were obtained from participants for genetic analysis. Data were analyzed using SPSS Version 25. Descriptive statistics such as means, frequencies and proportions were determined. Chi-squared test for fitness, Independent T-test & one-way ANOVA were employed for various analysis. A p-value of   0.05 was considered significant.

Results: 786 participants aged   40 years were recruited. The mean age of the study population was 59.8 ± 11.8 years. The prevalence of mutation in the myocilin gene among POAG group was 8.4% and in the non-glaucoma group 2.3%. This observed difference was statistically significant. The chromosomal location of the mutant myocilin gene was in chromosome 1-GLC1A. 171638779, 171638703, 171638610 and 171638608.

Conclusion: Mutations in myocilin gene is associated with adult-onset POAG among indigenes of Rivers State and could be used as a biomarker in early diagnosis of the disease.

Keywords: Prevalence, myocilin gene mutation, Adult-onset Primary Open Angle Glaucoma, Rivers State.

UPH/SPH/EPID/PhD/2018/FT/004: Community-volunteer driven intervention and caregivers' knowledge on childhood immunization in rural communities of Rivers State

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ABSTRACT

Introduction: Immunization is a cost-effective public health intervention as it prevents an estimated two to three million deaths annually in children. Current interventions focus more on supply-side than demand-side challenges, especially at the community levels.   Information on immunization from community members has been shown to improve caregivers' knowledge on immunization. The objective of the study is to evaluate community volunteer-driven health education and caregivers' knowledge on immunization in rural communities of Rivers State.

Methods: A randomized controlled study was carried out in selected rural communities among caregivers with infants 0 to 6 weeks. The caregivers were enrolled using the multistage sampling technique. A total of 368 caregivers were randomized into either the intervention or control group and followed up till the children were 9 months old. The home-based intervention, by trained community volunteers, was a simplified immunization education for caregivers in the intervention group only. Data were collected using a pretested, semi-structured, interviewer-administered questionnaire and analyzed with SPSS version 25. The Chi-Square test was used for statistical significance. A p< 0.05 at 95% confidence interval was statistically significant.

Results: Most caregivers were mothers (83.2% intervention group; 80.4% control group) with a mean age of 30.20 ± 7.90 years (intervention group) and 31.92 ± 10.10 years (control group). The children were mainly males with a mean age of 22.62 ± 9.27 days (intervention group), and 22.23 ± 8.61days (control group). There was good knowledge of immunization in the intervention group, 165 (95.38%) at post-intervention; 144 (78.26%) at baseline, which was statistically significant (p=0.001).

Conclusion: Immunization education by community members improved caregivers' knowledge on immunization.

Keywords: immunization, community-volunteers, Rivers State

UPH/SPH/PRH/PhD/2018/FT/003: Quasi-Experimental Evaluation of a Virtual Sexually Transmitted Infections Risk Reduction Programme among Female Undergraduates in Rivers State, Nigeria

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ABSTRACT

Introduction: Sexually transmitted infections among young people are major public health problems and seem to be on the rise with a declining age of sexual debut among them, putting pressure on scarce health resources.

The study was done to evaluate the effectiveness of a virtual-based risk reduction intervention on the knowledge of sexually transmitted infections among undergraduates in the Port Harcourt metropolis.

Methods: A quasi-experimental study design was used in a virtual setting. The intervention used was an online modified Minimum Prevention Package (MPP) intervention and was carried out in the three phases within 3 months. Ninety (90) female undergraduates were sampled into 2 groups using a stratified sampling method, data was collected using an online self-administered questionnaire (Google form), data were analysed using Statistical Package of Social Science (SPSS) Version 20.0.

Results: The response rate of respondents was 100%. Participants were aged 18-29 years with a mean age of 21.12 years. The results indicate that overall good knowledge of STI was statistically significantly higher for the Post group compared to the Pre group (46.67% vs. 4.44%) (p=0.001). The majority (98.89%) had heard of STI, and 93.33% were aware of the symptoms. Most of them (68.89%) were aware that correct and consistent condom use had a protective function and 64.44% knew STI could present without showing symptoms, while 58.89 were aware of the implications of untreated STI. Common symptoms reported are unusual vaginal discharge (75.56%), Itchy genitals (47.78%). HIV (92.22%) and Gonorrhea (77.78%) were the most known, genital warts (6.67%) were the least known. Most used source of information were internet (55.56%), Radio/Television (23.33%), School lectures (23.33%).

Conclusion: The level of STI knowledge was high and there was a significant difference in the knowledge among the students after the intervention. More research is needed on how to translate knowledge gained to positive behavior change.

Keywords: Sexually transmitted infections, knowledge, females, university students.

G2018/UPH/SPH/HSM/PhD/PT/022: Satisfaction with Waiting Time Between Insured and Non-Insured in a General OutpatientClinic: A comparative Cross-Sectional study

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ABSTRACT

Introduction: Health insurance increases demand for care and puts pressure on quality of care. Patient waiting time is an important indicator for efficiency and quality of healthcare services and has been found to have strong relationship with patients' satisfaction.

Objectives: To determine and compare waiting time and satisfaction with waiting time between insured and non-insured general outpatients in the Niger Delta University Teaching Hospital, Okolobiri.

Methods: Using a validated structured questionnaire and time-motion log, in a comparative cross-sectional study, 82 insured and 82 non-insured consenting respondents chosen by stratified sampling technique, had data on socio-demographic characteristics, waiting time and satisfaction with waiting time collected from them. Total waiting time was a summation of time spent in records, nursing, consulting doctor and pharmacy for drugs. The difference in waiting time between the insured and non-insured was explored using Student's t-test and satisfaction score with waiting time was investigated using chi-square test. Analysis was done using SPSS version 25.0. P-value <0.05 was significant. Ethical approval was obtained from hospital research committee.

Results: Of the 164 participants, 34.8% were males and 65.2% females. There was no significant difference with gender. Average total clinic waiting time (TCWT) in the general outpatient department was significantly different (t= 6.60; p = 0.001) between the insured (1141.5$\pm$46.3 minutes) and the non-insured (99.2$\pm$35.1 minutes). Satisfaction with waiting time was not statistically different (χ^2= .27; p = 0.601) as 58 (70.7%) and 61 participants (74.4%), were satisfied in the insured and non-insured groups respectively.

Conclusion: Averagely, insured patients spend more time in outpatient's clinic than non-insured patients. Satisfaction score with total time spent was not statistically different. Health care providers should ensure service equity and quality to both insured and non-insured patients attending the general outpatient clinic.

Keywords: Outpatient; waiting time; satisfaction; health insurance.

UPH/SPH/HSM/PhD/2018/PT/015: Health-Related Quality of life among Patients with Depression: Validation of the Whoqol-Bref
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ABSTRACT

Introduction: Several measures have been developed in different clinical settings to measure the health-related quality of life of people with depression, but none been comprehensive enough. The aim of this study was to validate the WHOQOL-BREF questionnaire for assessing the health-related quality of life of patients with depression in River State.

Methods: Following ethical approval, 40 respondents diagnosed with depression were administered the WHOQOL-bref questionnaire. Explorative data analysis was carried out using Principal Component Analysis with Varimax rotation. Confirmatory data analysis was performed using the item response. Reliability was determined by calculating the Cronbach's Alpha coefficient of internal consistency. The Sstatistical Package for Social Sciences version 23 (SPSS-24) was used. Level of significance was set at p 0.05.

Results: The study shows WHOQL-BRIEF items loaded on factors or components were all measuring the same construct of the physical, psychological, social relationships and environmental domains while the two global items had their factor loading values ranged from .41 to .89. Construct validity using factor analysis had the highest eigenvalue as 9.021 and shows WHOQL-BRIEF fulfilled the assumption of unidimensionality measuring just the construct of Quality of life. Reliability showed a high Cronbach's Alpha internal consistency coefficient of WHOQL-BRIEF in the local populace as .833. There was good endorsement and response rate, and data completeness was 100%. There was no clustering of most endorsement at either end of the scale showing a lack of floor or ceiling effects.

Conclusion: Findings indicate the WHOQOL-Brefhas good psychometric properties and empirically justified in the Nigerian local populace.

Keywords:Health-Related Quality of Life, Patients with Depression, Validation, WHOQOL-Bref

UPH/ SPH/PhD/HSM/PT/018: Disease Patterns among Health-Insured patients attending the out-patient clinic of a Government Hospital
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ABSTRACT

Introduction: A major objective of a health insurance scheme is to ensure adequate access to health care. The patterns of diseases observed in health facilities when people have unhindered access to health care may reflect the disease burden in the community.The aim of this study was to determine the pattern of diseases among health insured patients attending the General Out-patient Clinic (GOPC). Information was extracted from records using a proforma and included age, sex, date of consultation and diagnosis.

Methods: This was a retrospective study of Bayelsa Health Insurance Scheme (BHIS) enrollees who attended the Government Specialist Hospital, Bayelsa State from April 2017 to March 2018. Diseases were grouped into communicable diseases (CDs) and non-communicable diseases and further categorized using the International Classification of Diseases (IICD)-10. Data was analyzed with IBM SPSS 20.0.

Results: Only 2068 cases had complete records with a higher proportion (53.9%) being females. Out of this total, 1193(53.9%) individuals had CDs while 875(42.3%) cases were due to NCDs. Infectious and parasitic diseases accounted for 662(32.0%) of total burden of diseases with malaria (43.5%), URTI (21.8%) and scabies (5.9%) being the commonest CDs. On the other hand, the commonest CDs were hypertension (17.7%), refractive errors (17.6%) and diseases of the joints and bones (9.4%). While CDs decreased steadily with age, there was an increase in NCDs with NCDs eventually overtaking CDs during the fourth decade of life.

Conclusion: CDs and NCDs remain common in our environment. Although CDs are generally more prevalent, NCDs eventually outstrip CDs with increasing age. There is a need for sustained strategies to control CDs and curtail the rising trend of NCDs.

Keywords: Bayelsa state, health insurance scheme, hospital, communicable diseases, non-communicable diseases

Section 2: Abstracts from MSc works

G2020/PUT/MSC/MMW/FT/015: Obstetric emergency preparedness among Nurse-Midwives working in Obstetrics Units of selected Hospitals in Imo State
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ABSTRACT

Objective: The aim of this study was to assess the obstetric emergency preparedness amongNurse-Midwives Working in Obstetrics Units in Selected Hospitals in Imo State. Methods: A descriptive survey research design was adopted for the study. 362 nurses/midwives were selected from the total population of 3800, using Taro Yamane sample size determination formula. A structured questionnaire was used to collect data for the study. The instrument was validated by the researcher's supervisor, and other experts. Test-retest reliability method was employed to determine the reliability of the instruments and a reliability index of 0.82 was obtained to showing that the instrument is reliable. Descriptive statistics was used as data analysis method. Hence, measure of central tendency simple percentage and charts and mean were used to answer the research questions while t-test statistics was used to test the null hypothesis 0.05 level of significance.

Results: The result revealed that (28.2%) nurses reported attendance to obstetric emergency drills at work setting, (44.4%) showed familiarity with procedures for staff call up systems during emergencies, (50.4%) showed familiarity with emergency crash cart at work setting and being acquainted with correct triaging of obstetric emergencies.

Conclusion: Nurses play a significant role in the identification and management of obstetric emergencies. This study recommends strengthening of the areas where the nurses lack obstetric emergency preparedness through appropriate empowerment strategies to ensure competency in managing obstetric emergencies among nurses-midwives.

Keywords: Obstetric emergency, Midwives, Preparedness

G2020/PUT/MSC/MMW/FT/016: Midwives and Spouse Psychological Support during Pregnancy and Birth in Selected Hospitals in Aba, Abia State
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ABSTRACT

Introduction: The aim of the study is to examine midwives and spousal psychological support during pregnancy and birth in selected hospitals in Aba, Abia State. Methods: The study adopted descriptive survey design. 352 women were selected using simple random sampling techniques. The instrument for data collection will be a self-structured questionnaire developed by the researcher. The instruments will be validated by the researcher's supervisor, and other experts in School of Public Health and Toxicological Research, Africa Centre of Excellence, University of Port Harcourt. Descriptive statistics was used as data analysis method. Hence, measure of central tendency statistics (mean), simple percentage and charts as used to answer the research questions.

Results: Findings showed that 86% respondents received maximum support from their spouses during pregnancy, labour, and delivery. Psychological supportsuch as encouragement, massage and accompany to labour room were given by their spouses. Some of the respondents also revealed that they felt a little relief immediately the saw their partners during labour, that the presence of their spouse helped them get out of depression. Others include financial provision, taking care of other children etc. Pearson Chi-square showed that there is a significant effect of spousal psychological support on pregnant women $\chi^2 (2) = 27.894$, p < .001.

Conclusion: Spousal support during pregnancy was high among women in Aba, Abia State, Nigeria, and it impacted positively on their wife's period of pregnancy, labour, and delivery. Therefore, the researcher recommends that a high level of spousal support should be sustained to promote family bonding and development as well as reduce maternal and child mortality.

Keywords:Midwives, Psychological support, Pregnancy, Spouse

G2020/PUT/MSC/MMW/FT/018: Assessment of Midwives' Postpartum Care in Tertiary Hospitals in Anambra State

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ABSTRACT

Background:Postpartum healthcare is critical towards the survival and prevention of maternal and newborn morbidity and mortality. Globally, midwives provide postpartum care within healthcare facilities to support women for best outcomes during this critical period.Data is limited on the postpartum care midwives provide in tertiary hospitals in Anambra State, Nigeria. This study assessed these services in tertiary hospitals in Anambra State, Nigeria.

Objectives: To assess the postpartum care provided by midwives in Anambra State tertiary Hospitals

Methods: A descriptive cross-sectionalsurvey design was used for this study using self-administered 33-items, 4point Likert Scale questionnaire. Data was analyzed using Chi-square test: p-value < 0.05 was considered statistically significant.

Results: Most of the respondents 294 (88.0%) were females: 168 (51.1%) and 161 (48.9%) from the Nnamdi Azikiwe University Teaching Hospital, Nnewi and the Chukwuemeka Odumegwu Ojukwu University Teaching Hospital, Awka, respectively. Their mean age was 40.4 (SD: ± 9.9) years and modal years of experience was 1 – 9 years: (n=113: 34.2%). Age was statistically significant for the respondents' assessment of mother's fundal height (p: 0.020): but their gender had no statistical significance for this variable (p: 0.258). The respondents' place of work did not differ significantly with their postpartum assessment, counselling and care with all p-values > 0.05 for both research centres at the set p-value: (p = 0.05).

Discussion: The midwives included in this survey showed overall high level of postpartum care to the mothers and their newborn babies. The major challenges to postpartum care by midwives in both study centres were time constraint for midwives' care, lack of enough supplies for sterile materials and management support.

Conclusion: Midwives should be supported to provide best postpartum practices through training/retraining and providing enough materials/manpower and supports needed.

Key Word: Assessment; Midwives; Postpartum care; Tertiary Hospitals, Anambra state.

G2020/PUT/MSc/MMW/FT/019: Assessment of the Nutritional Status of Pregnant Women and Nursing Mothers Resident in Ibaa Community of Rivers State

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ABSTRACT

Background: Malnutrition among pregnant women and nursing mothers critically affects the women and mostly their foetuses and newborns that fully depend on them for survival. Assessing the nutritional status of pregnant women and nursing mothers is thus essential.

Objective: To assess the nutritional status of pregnant women and nursing mothers in Ibaa community of Rivers State.

Methodology: A cross-sectional qualitative study was conducted to assess the nutritional status of 99 pregnant women and nursing mothers attending clinics in Ibaa. Subjects for this study were randomly selected, ethical clearance was obtained from the Post-graduate Ethical Committee and consent from subjects was approved. Parameters used to assess the nutritional status of the women were obtained from predesigned structured questionnaire, anthropometric measurements, biochemical investigations and clinical evaluation. Data was expressed in percentage and analyzed using SPSS. Chi-square test was also used to test for significance.

Results: The result showed that 40% of the women had monthly family income below 10,000 naira, 33.5% had between 10,000 – 20,000 naira, 20% had between 20,000 – 30,000 naira while 6.5% had less than 30,000 naira. 31% of women were underweight, 47% had normal body mass index (BMI), 16% were overweight, and 6% were obese. 12% of the women were not anaemia, 48% had mild anaemia, 36% had moderate anaemia, and 4% were severely anaemic. Calorie intake of 84% pregnant women and nursing mothers were below Recommended Dietary Allowance (RDA) and only 16% of the subjects ate calories equivalent to RDA.

Conclusion: Underweight and low dietary nutrients were nutritional problems in Ibaa community, which is against the null hypothesis of the study. Therefore, effective nutrition intervention which is mostly protein, minerals, and vitamins based should be directed towards pregnant women and nursing mothers in Ibaa to improve maternal nutritional status.

Keywords: assessment, nutrition, nursing mother, pregnant woman

G2020/PUT/MSC/MMW/FT/023: Midwives' Perceptions of Women's Preferences in Midwifery Care in selected Local Government Area: A Focus Group Study
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ABSTRACT

Background: The study is aimed at exploring a focus group study of Midwives' perceptions of women's preferences in Midwifery care in selected local Government Area.

Methods: This qualitative study, which was part of a larger study, used a hermeneutic-interpretive approach and involved focus group interviews with midwives. Data collection and analysis were done in a conjoined fashion between January and February 2022. Two focus group interviews were conducted in two different departments of University of Port Harcourt Teaching Hospital. The sample of 17 qualified midwives was heterogeneous with regards to age, educational level, professional experience, type of midwifery care provided, and setting (employed, caseload, education) in which they provided services.

Results: The result of the study describes a number of areas in midwifery care in which women encounter deficits, particularly during pregnancy and early labour. This include continuity of care, fears around timely access to medical services, and the freedom to exercise choice are important features of maternity care that influence women's decision-making when choosing place of birth.

Conclusion: It is important that new models of midwifery/maternity care need to be developed to solve some of the existing problems and new forms of inter-professional cooperation and management of transition of care points are required. The study concludes that it is important that changes are implemented in such a way that women are enabled, and welcome, to clearly state their preferences for midwifery and maternity care. Therefore, the researcher recommends that the management of Teaching Hospitals should provide a system that will continually monitor quality of services offered in the facilities by midwives.

Keywords: Midwives'-, Perceptions, Preferences, Midwifery

G2020/PUT/MSc/MMW/FT/024:Barriers and Incentives influencing the Use of Partograph by Midwives in Tertiary Health Institutions in Anambra State

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ABSTRACT

Background: Outcome of any pregnancy is dependent on intrapartum care.Partograph use developed by Philpott, in 1972, and recommended by World Health Organization, offers timely intervention and reduce prolonged labour and intrapartum mortality. Data is limited to barriers and incentives influencing the use of partograph by midwives in tertiary health institutions in Anambra state.

Objective: To determine the barriers and incentives influencing the use of partograph by midwives in tertiary health institutions in Anambra state.

Methods: Descriptivesurvey design was adopted for this research work. Instrument for collection of data was a questionnaire formulated in a 4-point Likert scale. A reliability coefficient of 0.92 was established proving the instrument reliable. Midwives from both study centres made up the population, while 277 were drawn as sample. Data were analyzed using, mean, standard deviation, t-test and spearman ranking with SPSS.

Results: Midwives in both study centers have high level of knowledge of partograph, and high level of partograph utilization during labour. Hence, there is a significant relationship between the midwives' level of knowledge and level of education (R=0.161, p=0.007), between utilization level and years of experience (R=0.210, p=0.000). Lack of knowledge, incompetency, shortage of personnel, non-availability of partograph, poor attitude, heavy workload, and time constraint were the barriers hindering proper utilization partograph. Furthermore, proper education and trainings; periodic refresher courses; employment of adequate workforce; proper and adequate supervision; provision of electronic partographs; positive attitude of midwives were the incentives that encourage partograph utilization.

Conclusion: Midwives working in both study centres have high level of knowledge and utilization of partograph during labour. Periodic workshops/seminars and on the job, trainings be organized for midwives with necessary knowledge and skills on the use of partograph in assessment and monitoring of labour.

Key words: Partograph, barriers, incentives, midwives, tertiary health institution, Anambra State

G2020/PUT/MSc/MMW/FT/028: Knowledge and Practice of Vitamin D Supplementation for Pregnant Women Attending Antenatal Care in Selected Health Centres in Yenagoa L.G.A, Bayelsa State
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ABSTRACT

Background: In Bayelsa, sedentary lifestyles with less exposure to sunlight, poor effort to deliberately consume vitamin D foods and supplements needed by the body, and poor knowledge of the effect of vitamin D deficiency as an essential nutrient are all factors that influence vitamin D supplementation. The study was conducted on the knowledge and practice of vitamin D supplementation for pregnant women attending antenatal care in selected health centres in Yenagoa Local Area, Bayelsa State.

Methods: The study employed descriptive research design, and went on to identify the socio – economic and cultural factors that influence supplementation with vitamin D. The study area was made up of seven selected Primary Healthcare Centres in Yenagoa Local government area of Bayelsa State. The study gathered data from 280 respondents - 40 respondents made up of consented pregnant women, from each of the health centres that were selected. Multistage sampling method was used to select, first the health centres, where health centres whose names start with the letter 'A' were selected; and respondents were selected using systematic sampling method. Data was collected using self - administered questionnaires which have been validated and analysis of the collected data done using SPSS version 20. 280 questionnaires were distributed and same retrieved from respondents.

Results: Knowledge of vitamin D assessed was 97.5% while vitamin D supplementation as an acceptable practice was 32% and the acceptability of pregnant women activating vitamin D by exposure to sunlight was 90%; while 32.5% respondents stated that cooking destroys vitamin D in the food sources.

Conclusion: The study discovered that pregnant women have appreciable knowledge of vitamin D but are unaware that lack of it can lead to congenital malformations, and that they do not receive it as a supplement in the health facilities where they are supposed to be given. It is recommended, that health care providers should increase health teaching on vitamin D supplementation and also ensure that this vitamin D is given as a supplement to pregnant mothers.

Keywords: Knowledge, Practice, Supplementation, Pregnant, Antenatal, Yenagoa

G2020/PUT/MSC/MMW/FT/030: Biochemical Markers of Nutritional Status of Under 5 Children in Ibaa Community of Rivers State
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ABSTRACT

Introduction:The study is aimed at Biochemical Markers of Nutritional Status of under 5 Children in Ibaa Community of Rivers State. The objective is to determine anthropometric indices such as body mass index, mid-arm muscle circumference of under 5 children.

Methods:An experimental research design was employed for the study. Nutritional status of one hundred (100) children aged 1-5 years old was assessed from Ibaa Community. Semi-structured interview, quantitative anthropometric methodology in respect of mid-upper-arm circumference (MUAC) and weight-for-height (WFH) indices, and biochemical tests of serum calcium, albumin, total protein, and hemoglobin were used for the assessment to extract relevant data from the target population.

Results:Out of 100 assessed children (50 female and 50 male) between 1-5 years old, twenty four percent (24%) suffered from different grades of under-nutrition using MUAC measurement with a set point of 13.5 cm. Similarly, the nutritional status of the children as indicated by WFH index revealed that thirty six percent (36%) were of different grades of protein energy malnutrition (PEM) as per Water low classification. However, the biochemical tests across the community for sixty (60) children selected from the total 100 [20 under-nourished (MUAC 13.5cm) and 40 well-nourished (MUAC> 13.5cm) children] revealed that serum albumin, total protein, calcium, and haemoglobin were lowered significantly (P<0.05) in under-nourished children.

Conclusion:Anthropometric arm indicators and MUAC/A measurements is an effective method for assessing nutritional status in children under the age of 5years.The study recommends that measures be taken by local government executives to improve maternal and child health services in their communities.

Keywords: Nutritional, Status, Biochemical, Markers

G2020/PUT/MSc/MMW/FT/035: Assessment of Polyaromatic Hydrocarbons levels (PAH) in Maternal and Umbilical cord Blood of Diabetic Mothers at selected Hospitals in South-Southern Nigeria
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ABSTRACT

Introduction: Humans are exposed to Polyaromatic Hydrocarbons (environmental pollutants and potential carcinogens) commonly from tobacco smoke, fossil fuel and factory fumes.

Objective: This study examined the Polyaromatic Hydrocarbon levels in maternal and umbilical blood of diabetic mothers at selected hospitals in south-southern Nigeria.

Method: A cross-sectional design was applied on a convenience sample of consenting 178 mother-new-born pairs (diabetic = 64, non-diabetic = 114). A novel proforma was utilized for data collection. Collected data was analyzed using descriptive and inferential statistics and hypotheses were tested using ANOVA, Fisher and Chi Square statistics at a 5% level of significance.

Results: There were detectable levels of Anthracene (mean 4.2 ng/ml), Benzoflouranthene (mean 0.8 ng/ml) and Benzopyrene (mean 0.5 ng/ml) in the maternal blood of the participants. There was significantly more Anthracene in maternal blood of the diabetic compared to non-diabetic mothers (5.0 vs 3.8 ng/ml, $p = 0.012$). There were detectable level of Anthracene (mean 2.8 ng/ml), Benzoflouranthene (mean 0.5 ng/ml) and Benzopyrene (mean 0.3 ng/ml) in the umbilical cord blood of participants. There was significantly more Anthracene in the umbilical cord blood of diabetic compared to non-diabetic mothers (3.3 vs 2.5 ng/ml, $p = 0.012$). Polyaromatic hydrocarbons levels were not significantly associated with gestation, birth weight, new-born length and head circumference ($p > 0.05$). Polyaromatic hydrocarbons were not significantly associated with maternal age, employment status and daily roasted plantain/fish/meat diet ($p > 0.05$).

Conclusion: Diabetic seemed to predispose pregnant women to increased blood and trans placental concentrations of Anthracene. More rigorous investigation on this subject matter is recommended.

Keywords: Environmental pollutants, hydrocarbons, diabetes mellitus, new-born, mothers.

G2020/PUT/MSC/MMW/FT/036:Midwives Supportive Attitudes towards Parents Following Perinatal Losses in two selected Hospitals in Aba, Abia State. Nigeria
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ABSTRACT

Background: Perinatal loss especially the death of the foetus in-utero occurring during the first two trimesters or the baby at full term or delivery can be a profound, stressful and devastating experience for parents, especially for those who have been expecting a child after a prolonged delay. In the event of this occurrence, the parents are separated and not allowed to see the dead foetus or baby because of the psychological effect and the midwives exhibit supportive attitude to help the parent cope with the ugly situation.

Objectives: The purpose of this research work was to evaluate the midwives' supportive attitude towards parents following prenatal loss in two selected hospitals in Aba, Abia state. Perinatal

Method: Descriptive research design was adopted. Population was all the midwives working in antenatal, prenatal, intranasal and postnatal unit including patients in those unit of the two selected hospitals. Questionnaire is used for data collection. Data was analyzed using percentage, tables. and chi-square.

Results. The following findings wererevealed that [1] some parents were duly care for during perinatal loss while [2] some parents experienced inadequate care during perinatal loss [3] Some midwives do encourage and support thevictims physically and psychologically during perinatal loss.

Conclusion: The midwives should render a meaningful and standard care to bereaved parents.The study recommends that care of parents following perinatal loss should be included in nursing curriculum, government should provide all the equipment required for effective care.

Key Words: midwives, supportive attitude, parents, perinatal loss and two selected hospitals in Aba, Abia state

G2020/PUT/MSc/MMW/FT/038: Assessment of Knowledge and Adherence to Antenatal Care Documentation Guideline among Midwives in selected Hospitals in Umuahia, Abia State
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ABSTRACT

Background: Antenatal care is a comprehensive health supervision of a pregnant woman from conception to birth by midwives. On the other hand, documentation is the process of recording the information and progress of pregnancy in the antenatal clinics by midwives. Documentation is very essential to midwifery practice as it promotes good management and continuity of care of prenatal women. There are stated rules and guidelines for standard documentation practices. For effective documentation of antenatal care, the WHO (World Health Organization) recommended a standard guideline for a unified ANC documentation. Inadequate adherence to ANC documentation guidelines results to poor birth outcomes. This study is aimed to assess knowledge and adherence to ANC documentation guidelines among midwives in selected hospitals in Umuahia.

Methods: A descriptive cross-sectional research design and multistage random sampling technique was used for the study. A sample size of 206 participants was determined using Taro Yamane's formular. Instrument for data collection includes: a structured questionnaire and a standard true checklist: Chi square was used to test the formulated hypothesis while data analysis was done with SPSS version 21.

Results: About 80% of the participants are knowledgeable about ANC documentation guideline, less than 50% of their documentation made use of the ANC guidelines, and only a few (about 30%) adhered to the use of ANC documentation guideline. There was no statistical association between knowledge and adherence of antenatal care documentation guideline.

Conclusion: Adherence to antenatal care documentation guideline was low despite the midwives having a good knowledge of it. Also, some factors such as time, inadequate manpower and lack of documentation tools were observed to have effect on documentation. There is need for adequate training, provision of tools for proper documentation and employment of more midwives will promote adherence of ANC documentation guideline.

Keywords: Antenatal care, documentation guideline, adherence, midwives.

G2020/PUT/MSC/MMW/FT/042: Burnout and Associated Factors among Nurse-Midwives in Tertiary Hospitals in Rivers State
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ABSTRACT

Background: This study investigated burnout and associated factors among nurse-midwives in tertiary hospitals in RiversState. A cross-sectional descriptive survey design was used for the study. Six objectives six research questions and its corresponding hypotheses guided the study.

Methods: The population of the study comprised all the 1337 Nurse-Midwives in the two tertiary Hospitals in Rivers state. A total of 419 Nurse-Midwives representing 31.34% of the population was used as the sample size for the study through Fischer's formula for sample size determination using proportionate and stratified sampling technique. A self-structured instrument titled, "Burnout and Associated Factors among Nurse-Midwives Questionnaire" (BAFNMQ) was used for data collection. Face and content validity was ensured by four experts including the researcher's supervisor. The reliability coefficient of the instrument was calculated to be 0.81 using Cronbach Alpha method. Descriptive statistics involving simple percentage, charts, mean and standard deviation were used to answer the research questions while inferential statistics involving chi-square was used to test the null hypotheses at 0.05 level of significance.

Results: Excessive workloads and environmental risks were leading causes of burnout among Nurse-Midwives working in tertiary hospitals in Rivers State. Based on the results, it was concluded that the associated factors of burnout are multidimensional and still very much present with nurse-midwives working in these hospitals. Also, excessive workloads and environmental risks if not quickly address may weaken the resilience of the Nurse-Midwives. Notwithstanding, the Nurse-Midwives are passionate about their job and as such are able to manage these associated factors from crippling the service delivery in the tertiary hospitals in Rivers State.

Conclusion: It was therefore recommended among others that both the federal and state governments should employ more qualified Nurse-Midwives, increase the hazard allowance of Nurse-Midwives and create a more enabling environment in the two tertiary hospitals in Rivers State.

Key words: Burnout, Associated Factors, Nurse-Midwives, Tertiary Hospitals

G2021/PUT/MSC/FT/MMW/043: Essential Newborn Care practice among Nurse/Midwives in selected Teaching Hospitals in Rivers State

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ABSTRACT

Background:The process of managing women from the antenatal period to labour and delivery; ensuring the wellbeing of new-born and postnatal care given by nurse/midwives is of immense importance and should be practiced globally. This practice when implemented adequately by nurse/midwives will drastically reduce the long-time occurrence of neonatal mortality rate. It is the aim of this study to assess the knowledge, practice and factors affecting essential new-born care practice among nurse/midwives in selected teaching hospitals in Rivers State using the Rivers State University Teaching Hospital and the University of Port Harcourt Teaching Hospital as a case study.

Methods: A cross sectional structured descriptive research designed method was used to collect data from respondents in the study areas, labour and postnatal wards. Purposive sampling of all the nurse/midwives was done on the 955 nurses and midwives in both teaching hospitals, census sampling was then employed to recruit all the 86 nurse/midwives providing care in the labour and postnatal wards. The self-structured questionnaires were offered to respondents and retrieved during data collection period. Data was analyzed in Microsoft Office suite (MS Word/Excel spreadsheet) also to Statistical Package for Social Sciences version 23 (IBM SPSS 23) software. A standard structured study instrument Likert scale was adopted on 4 points rating scale as Strongly Agree, Agree, Disagree and Strongly Disagree were weighted as 4 points, 3 points, 2 points and 1 point respectively in the process of answering and scoring the research-based statements. As well as Percentage (%), Mean (X) and Standard Deviation (SD) employed. The mean rating on responses were based on the following decision rule as > 2.5 regarded as Agreed Decision and <2.5 as Disagreed Decision. The following components were assessed for knowledge and practice: establishment of respiration, thermal care, cord care, early and exclusive breastfeeding, eye care and immunization.

Results:The result revealed that 92.6% of nurse/midwives in UPTH and RSUTH have knowledge and practice wiping of the face, nose, and mouth, at the delivery of baby's head and sucking of the mouth and nose immediately after birth with suction bulb, hence respondents practice establishment of respiration. 86.7% of respondents agreed to placing baby directly on mother's bare chest, nursing mother and baby in the same room and delaying bathing for at least six hours. Concerning the cord care practice, respondents are aware that cord should be cut with a sterile scissors, 82.7% agreed to cutting the cord at 1-3min after delivery; 80.7% of respondents are aware that chlorhexidine gel application is the best for the cord. 90.8% of respondents disagreed to the use of local herbs on the cord. The study participants are aware of the importance of colostrum with 85.7% disagreeing that colostrum's should be discarded, 58.6% also agreed to discouraging mothers from introducing water and other foods to the neonate before six months. The level of education, in-service training, presence of supportive supervision, availability of drugs and equipment are all significantly agreed factors that affects the level of essential new-born care practice.

Conclusion: the study populations have good knowledge and hence practice ENC. The level of education, in-service training, supportive supervision and availability of drugs and equipment's are all independent factors affecting the practice of essential new-born care. Therefore, strengthening in-service training and supportive supervision should be given priority attention. All the components of essential new-born should be incorporated to the school curriculum.

G2020/PUT/MSC/MMW/FT/048:Midwives and Doctors responses towards Miscarriage, Stillbirth and Neonatal Death in Private Hospitals in Obio/Akpor Local Government Area of Rivers State

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ABSTRACT

Background: The study is aimed at investigating midwives and doctors' responses towards miscarriage, stillbirth and neonatal death in private hospitals in Obio/Akpor Local Government Area of Rivers State. The objective of the study is to find out the level of knowledge of midwives and doctors toward towards miscarriage, stillbirth and neonatal death.

Methods: A descriptive survey design was adopted for the study. The study used simple random sampling technique select 362 midwives and doctors in private hospitals Obio/Akpor Local Government Area of Rivers State. A self-structured instrument was adapted and used to collect data. Statistical Package for Social Science version 20.0 was used to analyse the data. Descriptive statistics was used as data analysis method. Hence, measure of central tendency statistics (mean), simple percentage and charts was used to answer the research questions while t-test statistics was used to test the null hypothesis 0.05 level of significance.

Results: The study revealed doctors/midwives in the hospitals had good knowledge of miscarriage, stillbirth and neonatal death. That whenever there is a case of stillbirth the doctors and midwives ensure they do everything possible to ensure the patient is fine but that sometimes they tend to be very nonchalant about their jobs.

Conclusion: The response of doctors and midwives in private hospitals tomiscarriage, stillbirth and neonatal death are poor. The study recommended that doctors and midwives in private hospitals be given regular trainings to improve their skills towards response to miscarriage, stillbirth and neonatal death.

Keywords: Miscarriage, Stillbirth, Neonatal death, Responses.

G2020/PUT/MSC/MMW/FT/050: Level of Job Satisfaction among Midwives practicing in selected Health Care Centres of Port Harcourt Metropolis in Rivers State

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ABSTRACT

Background: The study is aimed at investigating the level of job satisfaction among midwives practicing in selected Health Care Centres of Port Harcourt Metropolis in Rivers State. The objective of the study is to determine factors that influence job satisfaction of midwives.

Methods: Descriptive survey design was adopted for the study. The study used simple random sampling technique select 367 midwives from a population of 4500 midwives in Health Care Centres of Port Harcourt Metropolis in Rivers State. A self-structured instrument was adapted and used to collect data. Statistical Package for Social Science version 22.0 was used to analyse the data. Descriptive statistics was used as data analysis method. Hence, measure of central tendency statistics (mean), simple percentage and charts was used to answer the research questions while t-test statistics was used to test the null hypothesis 0.05 level of significance.

Results: About 60% of the midwives were moderately satisfied with their job. The major factors influencing midwives' job satisfaction and job performance are job duties, achievement and recognition, reward.

Conclusion: The study concludes that nurses in hospital under study were not totally satisfied with their job. It is therefore recommended that management of the Health Care Centres of Port Harcourt Metropolis in Rivers State should review its' staff motivational system by placing emphasis on the intrinsic factors and complementing it with financial rewards and fringe benefits while ensuring that it is adequate and fair to all midwives in the Metropolis.

Keywords: Job satisfaction, Midwives, Health Care, Job performance, Port Harcourt.

G2020/PUT/MSC/MMW/FT/049:Knowledge and Practice of Ethical-Decision Making in the Care of Newborn Infant among Nurses and Midwives in University of Port Harcourt Teaching Hospital

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ABSTRACT

Background: This study was aimed at investigating knowledge and practice of ethical decision making in the care of newborn infant among Nurses and Midwives in the University of Port Harcourt Teaching Hospital.

Methods: The descriptive survey design was adopted for the study. Six objectives with its corresponding research questions and hypotheses guided the study. The population of the study comprised all the 75 Nurses and Midwives in the department of Paediatrics and Child Health, University of Port Harcourt Teaching Hospital. Total census sampling technique was used to select 75 sample size for the study. A self-structured instrument titled, "Knowledge and Practice of Ethical Decision Making in the Care of Newborn Infant among Nurses and Midwives Questionnaire" (KPEDMCNINMQ) was used for data collection. Face and content validity was ensured by five experts including the researcher's supervisors. The reliability coefficient of the instrument was calculated to be 0.78 using Cronbach Alpha method. Descriptive statistics involving simple percentage, charts, mean and standard deviation were used to answer the research questions while inferential statistics involving chi-square was used to test the null hypotheses at 0.05 alpha level.

Results: Findings showed that Nurses and Midwives had low extent of knowledge and practice in ethical decision making in the care for newborn infant among others.

Conclusion: There is still room for improvement in the knowledge and practice of ethical decision making in the care of newborn infant among Nurses and Midwives in University of Port Harcourt Teaching Hospital. Nurses and Midwives at all levels should improve on their communication skills with the parents of the newborn infant and update their knowledge on contemporary practice of ethical decision making in the care of newborn infants.

G2020/PUT/MSc/MMW/FT/006: Ethicolegal Issues in Midwifery Practice in Ho Teaching Hospital in the Volta Region of Ghana
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ABSTRACT

Background: Ethicolegal issues are menace in medical practice and** may be due to negligence on the part of the healthcare providers in the public and private health sectors.

Objective: Study determined midwives' knowledge, attitude of ethical-legal issues and the occurrence of ethicolegal issues in Ho Teaching Hospital in Ghana

Methods: Convenience sampling technique was used to select 104 midwives working in all the gynaecological and obstetrics units in Ho Teaching Hospital. Closed ended Likert-scaled validated questionnaire developed from a review of the literature was administered directly to respondents. Absolute and relative frequencies were generated using SPSS Statistics Version 23 Software and binary logistics regression was used to identify association between midwifery practices resulting in ethicolegal problems and years in practice.

Result: More of the 104 respondents held diploma (57.7%) and practiced less than 4 years (72.2%). While 48% had received training in ethicolegal practice, 39.4% admitted being very knowledgeable in ethicolegal issues, what malpractice is (50%) and how it occurs (51.5%). A few admitted being very knowledgeable in criminal malpractice (24.3%), assault/battery (27.9%), negligence (40.8%), professional misconduct (37.5%) and tort (24.3%). More respondents were aware that poor documentation (87.5%) could result in ethicolegal issues and fewer linked poor interpersonal relationship (51.9%) with ethicolegal issues. Respondents' consciousness of practices that could lead to ethicolegal issues was not associated with the duration of the years in practice.

Conclusion: More than half of the staff had knowledge on ethicolegal issues in midwifery including what constitutes malpractices in midwifery and the appropriate legal charges.

G2020/PUT/MSc/MMW/FT/021: The Use and Misuse of Mobile Phone in the Maternity Ward among Midwives and Doctors: Perspective of Mothers attending the Maternity Clinic in University of Port Harcourt Teaching Hospital
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ABSTRACT

Background: The use of mobile phones in the maternity ward carries with it several benefits but, if not checked could be disadvantageous. The aim of the study was to investigate the use and misuse of mobile phone in the maternity ward among midwives and doctors: perspective of mothers attending the maternity clinic in UPTH.

Method: The qualitative research design was adopted with a population which was estimated to be 1,500 mothers attending the maternity clinic in UPTH. The convenient sampling technique was used to select twelve mothers for the interview. The instrument for data collection in this study was an interview guide. Data collection was done by a one-on-one interview with the participants who give their consent to participate in the study. The thematic analysis was used for the analysis of the data.

Results: The result of the study showed that there were 4 themes and 15 sub-themes. The 4 themes include (1) reasons for use of phone in the maternity ward: for emergency purpose, easy communication, and as advanced medical technology (2) various ways phones are misused: interrupts communication, divides attention, provision of unsafe care, telephone disturbs patients while resting, ignore protocol, and poor concentration leading to medication error (3) possible consequences of mobile phone misuse: negligence and interference with duties and (4) better ways of mobile phone use: strengthen communication, monitor health, serves as reminder and notification for appointments and medication compliance.

Conclusion: use of phones by doctors and midwives in the maternity ward can help bridge patient-provider communication gap if used appropriately. It is recommended thatunit heads on duty should always monitor the health care providers to ensure that mobile phones are not used in the maternity ward in such a way that characterize misuse.

Key words: Use, misuse, mobile phone, maternity ward, midwives, doctors, maternity clinic, UPTH, University of Port Harcourt Teaching Hospital

G2020/PUT/MSc/MMW/FT/029: Assessment of Nutritional Status of Under – five Children in Ibaa Community of Rivers State
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ABSTRACT

Background: This study looked at assessment of nutritional status of under-five children in Ibaa Community of Rivers State. Five research objectives were used to investigate the knowledge of mothers, the type of food given to them, nutritional status of under-five children, the factors that can affect health status and how to improve the nutritional status of the under-five children.

Methods: This study adopted a descriptive design and interview method of data collection was used to generate information from the respondents. A sample size of one hundred and twenty-eight (128) childbearing mothers between the ages of 17 and 45 years was drawn from a target population of one hundred and sixty child bearing women using a convenience non-probability sampling technique. A questionnaire on "assessment of nutritional status of under-five children" was used as the interview guide for data collection. Analysis of data was done using the Statistical Package for Social Sciences (SPSS) version 23 while chi-square was used to test hypothesis.

Results: The study revealed that 96.5% children were fed with colostrums, 60.2% of the children aged 6 – 59 months were exclusively breastfed for the first 6 months of life, 56.5% received timely complementary feeding, 22.5% continued breastfeeding for up to 2 years while 10.2% continued for more than 2 years. On weight for height measurement, 40.9% were mildly malnourished, 10.7% moderately malnourished and 20.4% were severely malnourished.

Conclusion: The study found out that most under – five children in Ibaa Community were malnourished, therefore, assessing nutritional status of under-five children is of great importance to curb the menace of malnutrition. It is suggested that health education of the mothers should be carried out and their health centres should be put in place for these mothers to learn how and what to feed these children to prevent malnutrition.

Keywords: Assessment, Nutrition, Under – five, Knowledge, Weight for Height, Exclusive breastfeeding, Colostrum, Ibaa

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G2020/PUT/MSc/MMW/FT/031: The Lived Experiences of Midwives on Intrapartum Care in the Bono Regional Hospital, Ghana
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ABSTRACT

Background: Childbirth is a major aspect of a woman's life and women who give birth deserve support during labour and childbirth. The World Health Organization (WHO, 2018) recommendations on intrapartum care considers good interaction as a prerequisite for positive outcomes of childbirth. This study explored the experiences, practices and roles of midwives in the Bono regional hospital of Ghana, on intrapartum care during labour and childbirth.

Methods: This study utilised a qualitative approach and conducted thirteen semi-structured interviews with midwives, who had more than one year work experience in labour and childbirth units. Purposive sampling method was employed in recruiting study participants. The study used thematic analysis.

Results: Many study participants were senior midwives while on average they practiced for more than five years. Some midwives expressed limited knowledge and understanding of the concept intrapartum care. Intrapartum care was identified to routinely involve four stages. Positive experiences of midwives included: expressing empathy, teamwork, using encouraging diction and good attitudes towards expectant mothers and colleagues while unprofessional conduct, adoption of unacceptable practices and improper communication towards expectant mothers were some of the negative experiences. Adequate provision of resources, good leadership and healthy working relationship among midwives were key in providing intrapartum care. Many midwives demonstrated limited knowledge and understanding of intrapartum care and WHO recommendations. Their practices were not guided by specific policy guidelines. Conclusion: This study recommends the integration of World Health Organizations' recommendations and intrapartum care as a subject into the curriculum of midwifery training institutions as well as hospital in-service trainings.

Key words: Expectant mothers, intrapartum care, WHO; World Health Organisation, midwives and participants.

G2020/PUT/MSc/MMW/FT/010: THE PRACTICES AND ATTITUDES OF MIDWIVES TOWARDS POST NATAL CARE OF MOTHER AND NEWBORN IN KUJE GENERAL HOSPITAL ABUJA

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ABSTRACT

Background: The positive attitude of midwives is an essential factor in the utilization of maternal health services by pregnant women. Negative attitudes of midwives during postnatal period make some women to seek care in the hands of unqualified personnel resulting to complications like severe haemorrhage, fresh still birth, neonatal and maternal morbidity and mortality.

Objective: To Evaluate the Practices and Attitudes of Midwives towards Post Natal Care of Mother and Newborn in Kuje General Hospital Abuja.

Methods: This hospital based descriptive cross-sectional study was conducted to evaluate the practices and attitudes of midwives towards post-natal care of mother and newborn in kuje general hospital Abuja, Nigeria. A purposive non probability sampling technique was used to select 44 respondents from Kuje General hospital. Data were collected with a validated self-structured 5-point Likert scale questionnaire. Descriptive analysis was done using SPSS (version 20).

Result: Majority of the respondents were between the ages of 30-39 years. More than half 23 (52.27%) were registered nurse-midwives which is the least qualification among respondents with 23 (52.27%) having 1-10 years working experience. The respondents identified some of areas affected by the midwife attitude impair health seeking behaviour 33 (75%), commitment of mother to postnatal visits 43 (97.73%), apathy to hospital base deliveries 24 (54.55%), seeking refuge in the hands of unskilled birth attendants 12 (27.27%), and rising maternal and child mortality 13 (29.55%). Furthermore, study revealed that the factors influencing midwives' attitude towards women in labour based on responses were individual personality difference 24 (54.55%) workload of the midwives 44 (100%), incentive and poor enumerations 32 (72.73%), adherence/non-adherence to midwives' instructions 44 (100%), shortage of manpower 34 (77.27%), and therapeutic communication between the midwife and patient 34 (77.27%).

Conclusion:Midwives have the necessary qualifications and experiences needed to care for women in labour effectively, but certain factors influence their attitude either positively or negatively.

Key words: Attitude, Practice, Factors, Midwives, Postnatal, Women, Hospitals, Nigeria.

G2021/PUT/MSc/ MMW/ FT /025:Awareness of Human Papilloma Virus Infections and Vaccination in Midwives in University of Port Harcourt Teaching Hospital, Rivers State

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ABSTRACT

Background: Cervical cancer is a significant public health problem to all women on the African continent. Human papillomavirus is proven to be associated with about 70% of all invasive cervical cancer. Effective preventives approaches will curb most of cervical cancer cases.

Objective:To determine the awareness of Human Papilloma Virus infections and vaccination in Midwives in University of Port Harcourt Teaching Hospital, Rivers State.

Method: Qualitative descriptive design was adopted in this study. A total of 18 Midwives was recruited using purposive sampling. Data was collected through one-on-one oral interview using interview guide which consists of semi structured and open-ended questions. Data was analyzed using thematic content analysis.

Result: Four major themes and 15 sub themes emerged from the data. (1) Understanding about Human Papilloma Virus infection: Disease picture, mode of spread, types of viruses, risk factors, treatment (2) Preventive strategies: Health education, contraceptives, cervical screening test, (3) understanding of human papilloma virus vaccines: general views, safety, past experience, availability and cost, acceptance /perception, (4) Understanding of cervical screening test: general views, types of cervical screening test acceptance and barriers.

Conclusion: Majority of the midwives has knowledge of human papilloma virus infection and vaccination but often limited and inaccurate. Understanding of human papilloma virus infection, type of virus and vaccines was greatly lacking compared to its resultant effect of cervical cancer. Acceptability of cervical screening test is high but majority have not done the test The barriers to cervical screening test are cost, Ignorance, fear and myths/beliefs. It recommends need to improve knowledge on Human Papilloma Virus infection and vaccination in Midwives, include the vaccine to immunization schedule, cost of cervical screening test and vaccine should be subsidized and policy should be developed to increase acceptability.

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Key words: Awareness, Human Papilloma Virus, Vaccination, Midwives and University of Port Harcourt Teaching Hospital

G2020/PUT/MSc/MMW/FT/034: **Awareness and Implementation of Integrated Management of Childhood Illness Format in Primary Health cares in Njikoka Local Government Area, Anambra State**
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ABSTRACT

Introduction: Every year about 12 million children die before their fifth birthday in low- and middle-income countries, with manyof these deaths occur during the first year of life. Nearly 70% of these deaths are due to acute respiratory infections (mostly pneumonia), diarrhea, measles, malaria, and malnutrition. Frequently a combination of these conditions is responsible for the untimely deaths in children below five years of age, and it is recorded that Nigeria is responsible for 50% of these deaths.

Objectives: This research was aimed to assessing the awareness and level of implementation of IMCI format, and the organizational and healthcare providers' related factors influencing the implementation IMCI format.

Method: In this descriptive cross-sectional study, 155 participants were selected from primary health cares in Njikoka Local Government Area, Anambra State – East Nigeria. Data collected on awareness, level of implementation of integrated management of childhood illness format in primary health cares and the organizational and healthcare providers' related factors influencing the implementation of IMCI format were analyzed using frequency, mean and standard deviation, hypotheses were tested using Spearman ranking correlational coefficient at 0.149. Ethical approval was obtained from appropriate research committees.

Result: There is low level of awareness (2.6 ± 0.975) and implementation (2.8 ± 0.917) of IMCI format among health care providers in the primary healthcare facilities, and organizational (3.0 ± 0.984) and healthcare providers related factors (3.2 ± 0.952) influences the implementation of IMCI format among the health care providers in the primary healthcare facilities.

Conclusion: The IMCI strategy is effective in the reduction of under- five's morbidity and mortality if properly and efficiently implemented and supervised. However, the awareness and implementation of integrated management and childhood illness format among healthcare providers working in the primary health cares in Njikoka Local Government Area is not optimal due to various factors that can otherwise be overcome by local/institutional interventions.

Keywords: IMCI, Awareness, Implementation, Health care providers, healthcare, Njikoka, Anambra.

G2020/PUT/MSc/MMW/FT/017: **Assessment of maternity waste management practice among maternity workers in primary health centres (PHCs) in selected Local Government Areasof Anambra State**
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ABSTRACT

Introduction: Health care waste is a general name given to all biomedical waste which maternity waste is one. Maternity care generates bulk waste that needs to be properly managed to prevent infections to the woman, her yet unborn child and the general public. Even though the guideline of health care waste management has been made available to health institutions. Improper management of wastes has been observed in some PHCs by the researcher.

Objectives: To ascertain Maternity workers' perception of Maternity waste management, identify types of waste generated in Maternity, examine method of waste disposal and identify problems encountered while managing the waste.

Methods: The design for the study was descriptive survey. 171 respondents were selected using simple random sampling from the study population of 300. Questionnaire having a reliability co-efficient of 0.92 was used for data collection. Analysis using mean, standard deviation, t-test and spearman ranking was done.

Results: Results revealed that maternity health workers in PHCs in selected LGAs of Anambra State possess positiveattitude about the management of maternity waste (mean=3.4 ± 0.712); main types of wastes generated in primary health centres are needles and surgical blades, bandages and stitches, faeces, liquor and vomits, human body parts, chemical substances, expired drugs and nappies. Local incineration (using drum), open pit disposal, and burial are the main methods of waste disposal being used at the primary health centres. The main waste disposal problems encountered by the workers as revealed by the study are high cost of proper waste disposal, lack of modern incinerating unit, poor maintenance of available facilities, and inadequate waste disposal personnel.

Conclusion: Perception of maternity workers about maternity waste management was good. Generally, waste management practices were good even though there were challenges.

Keywords: assessment, maternity, waste, management, practices, PHCs, workers.

G2020/PUT/MAS/MMW/FT/004: Perception of Nurse/Midwives towards adoption of Information and Communication Technologies in Midwifery Practice in Government Hospitals in Bayelsa State

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ABSTRACT

Introduction: Information and communication technologies (ICTs) has become an important tool for quality health care delivery by nurses all over the world, though its use in Nigeria is still in a very slow progress.

Methods: The study tried to find out the perception of nurse/midwives towards adoption of information and communication technologies in midwifery practice in government hospitals in bayelsa state. A mixed method phenomenological study was adopted, with a population comprising of all midwives who are working in government owned health facilities in Yenegoa of Bayelsa state. For the qualitative study, the instrument for data collection was an interview guide and then thematic data analysis was done. For the quantitative study, a questionnaire was distributed using multistage sampling to select 258 respondents.

Result: Data was analyzed using the Statistical Product and Service Solutions (SPSS) version 26. Findings showed that midwives had a positive perception that ICT will help in accurate midwifery practice; there is a high readiness to adopt the use of ICT if the ways that will enhance its adoption is put in place. Also, majority of the respondents 166(64.1%) use ICT for specific health conditions, while 162(62.5%) use it every time at workplace. It was recommended that government should thread with caution on the legal implications that may be involved in the divulging of patients' health history on the internet, and midwives should have confidence that the use of ICT is easy and simple.

Conclusion: All resources needed to make available and functional the use of ICT should be put in place.

G2020/PUT/MSc/MMW/FT/012: Perception of Childhood Immunization among Mothers attending Primary Health Centres in Idemili South Local Government Area, Anambra State

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ABSTRACT

Introduction: Immunization is considered as one of the most cost effective and efficient measure in reducing morbidity and mortality from vaccine preventable diseases globally. Despite this success, compliance to immunization in Nigeria is still below 90% level as recommended by World Health Organization (WHO). Mothers' perceptions could affect their decisions concerning their children's immunization.

Objective: The objective of this study was to assess the perception of childhood immunization and selected socio demographic factors influencing their perception.

Methods: The study adopted a descriptive cross-sectional design, and a purposive sampling technique was used to select two hundred mothers with under –five children. A semi- structured questionnaire was administered in a face-to- face manner with 100% return rate. Cronbach alpha statistics was used to establish the internal consistency which gave a reliability coefficient of 0.88. Descriptive and inferential statistics were used to analyze the data. Results were presented in tables, percentages, means and standard deviations. Chi-square was used to test hypotheses at $p<0.05$ level of significance.

Result: Findings showed that mothers have positive perception on childhood immunization 128 (64%). Furthermore, long service waiting time (67%) distance to the facility (61%), vaccine unavailability (58.5%) the child being sick during immunization time (53%) and not being aware of the next immunization schedule (51%) were mothers' major perceived barriers to immunization. Findings further revealed that maternal age ($p<0.031$), and maternal occupation ($p<0.002$) were found to be significantly associated with perception of mothers on childhood immunization however maternal level of educational ($p >0.136$), birth order ($p> 0.868$), and marital status ($p> 0.108$) has no significant association with perception of mothers on childhood immunization.

Conclusion: Positive perception towards childhood immunization increases immunization uptake therefore more efforts need to be put towards health education so as to improve childhood immunization uptake among mothers.

Key words: Perception, Childhood, Immunization, Mothers, Vaccine.

G2020/PUT/MSc/MMW/FT/011: Quality Maternity Care: Maternal Service in selected Health Centres in Rivers East Senatorial District of Rivers State

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ABSTRACT

Introduction: Maternal morbidity and mortality in developing countries such as Nigeria have been found to be relatively high according to WHO (2019) and Chimaroke& Fredrick (2017). This piece of information made the researcher to pick keen interest in accessing the quality of maternal health care services available in health care facilities, focusing on antenatal, intrapartum and post-natal care.

Objective: The study seeks to address the research questions burdening on the investigation of the quality of maternal care services in the selected health care facilities. Justification of the study can be viewed from the study's usefulness to the policy makers, students, teachers, the public and adding to existing body of knowledge on the subject matter.

Method: The study was a cross-sectional descriptive design, with an aspect of observational study that is aimed at describing the present status of healthcare facilities. Moreover, two sets of questionnaires were used for data collection. One set for care recipients and another for caregivers. Observational checklist was used for assessment of each of the health facilities. Data collected with the research instruments were analyzed using SPSS software.

Results: Show that out of the women who registered for antenatal care (760.4), few (109.5) of them returned to the facilities for childbirth/delivery with the mean difference being 650.9, while the number of postnatal women (114.5) was far less compared to the number of women who came for child immunization (899.6) having the mean difference of 785.2. Also, less than 60 percent of the facility had a clean, modern building with adequate waste management facilities. However, it was observed that over 80 percent of the facilities were commodious enough.

Conclusion: The study shows that majority of the women were reluctant to patronize the facilities for childbirth and further services.

Keywords: Quality, Caregiver, women, Health facilities, Maternity.

G2020/PUT/MSc/MMW/FT/039: Perception of Pregnant Women Toward the Use of Episiotomy During Childbirth at Diete Koki Memorial Hospital, Opolo Yenagoa, Bayelsa State

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ABSTRACT

Introduction: Episiotomy can be defined as a surgical incision made at the perineum to widen the introitus and facilitate delivery. During childbirth, about 70% of women who give birth vaginally experience perineal injury and this may happen spontaneously or as a result of the incision made to facilitate childbirth known as episiotomy. There are very few studies on the perceptions of episiotomy recipients about these services. Therefore, investigating these women's perception is crucial for providing appropriate care which was the objective of this study.

Methods: The qualitative study examined 24 women in 3 different focus group discussion attending antenatal care at the Deite Koki Memorial Hospital, Yenagoa, Bayelsa State and have undergone episiotomy. Secondary data was reviewed using case series and primary data were analysed using content and thematic analysis and the accuracy and rigour of the data were assessed using the Lincoln and Guba criteria.

Results: The case series revealed that of the 846 births recorded during the period under review, only 64 births required episiotomy. The proportion of episiotomy at Diete-Koki Memorial hospital is low compared to the WHO recommendation. Tight perineum, primp mothers and big babies were cited as reasons why the procedure was done. The result showed two clear themes with some women expressing positive views while another group had negative perception about the procedure.

Conclusion: The women's perception about episiotomy was both positive and negative. Policymakers should ensure that factors that boost the positive perception of the procedure be encouraged adhering to WHO recommended percentage.

Key words: Episiotomy, Perception, Women, Qualitative Study.

G2020/PUT/MSC/MMW/FT/005: Perception and Uptake of Covid-19 Vaccine among Primary Health Care Workers in Rivers State

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ABSTRACT

Introduction: Coronavirus disease is a pandemic that is highly infectious and has led to increased morbidity and mortality. The virus has now affected virtually every country across the world and the number of deaths continues to rapidly increase. Healthcare workers perception and willingness to receive vaccination have been documented as essential for improving vaccination rate among patents and general population.

Objective: The study aimed was to ascertain perception and uptake of covid-19 vaccine among primary Health Care workers in Rivers State.

Method: The Cross-sectional survey design was used for the study. 424 primary health care workers were selected from a population of 1200 health care workers in Rivers State. A self-structured questionnaire was used to collect data for the study. The instruments were validated by the researcher's supervisor, and other experts in School of Public Health and Toxicological Research, Africa Centre of Excellence, University of Port Harcourt. Descriptive statistics was used to analyse the data. Hence, measure of central tendency statistics (mean), simple percentage and charts was used to answer the research questions.

Results: The finding of the study revealed that 89% of the sample size have the perception that Covid-19 vaccine sufficient to protect me against the disease and that it is safe, 79% were willing to take Covid-19 vaccine, 83% level of uptake of covid-19 vaccine and 71% said that the factors associated with the level of uptake of covid-19 vaccine among primary health care workers in Rivers State were lack of sensitization, too many rumor about the vaccine, trust for the vaccine safety amongst, concerns for safety, efficacy and effectiveness and distrust of the government others.

Conclusion: Health care workers are willing to be vaccinated with COVID-19 vaccine, whether in the present or in the future. Hence the study recommends that given the critical role of health care workers in vaccination, it is urgent to eliminate vaccine hesitancy among health care workers.

Keywords: Perception, Uptake, Vaccine, Covid-19

G2020/UT/MSc/MMW/F/045: Uptake of Intermittent Preventive Treatment of Malariaamong Pregnant Women by Nurse-Midwives in selected Public Hospitals in Yenagoa
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ABSTRACT

Introduction: Malaria has been a major public health concern especially in Africa. World Health Organization (WHO) developed a strategic framework for the control of malaria during pregnancy in Africa. Health care providers are expected to give Intermittent Preventive Treatment of malaria in pregnancy by Directly Observed Treatment.

Objective: The objective of the study was to ascertain the uptake of intermittent preventive treatment of malaria among pregnant women by nurse-midwives in selected public hospitals in Yenagoa.

Method: It was a cross sectional study, and a multistage sampling method was used to select a sample size of 375 for women and 21 for nurse midwives. Instrument for data collection was a self-structured questionnaire. Data was analyzed using Statistical Package for Social Sciences to get the percentages, mean and standard deviation.

Result: Findings show that, though sulfadoxine/pyrimethamine is the drug used for Intermittent Preventive Treatment of malaria in pregnancy which is a WHO strategy, 57% of the respondents affirm that it is not readily available in the hospitals. 92% of pregnant women are allowed to go home with sulfadoxine/pyrimethamine because they buy it themselves as they are no longer given it free in the hospitals. This makes the Directly Observed Treatment as recommended by WHO by nurse-midwives difficult. Although at 30 weeks of pregnancy most women 265(77.5%) had good knowledge of Intermittent Preventive Treatment of malaria in Pregnancy, about 138(68%) of them had received it just once.

Conclusion: In conclusion, the uptake of Intermittent Preventive Treatment of malaria in pregnancy is low, despite good knowledge of pregnant women about it. Sulfadoxine/pyrimethamine should be made available and given to the antenatal mothers during routine antenatal care to ensure good supervision through Directly Observed Treatment by Nurse-Midwives.

Keywords: Uptake, Intermittent, Preventive, Treatment.

G2020/PUT/MSc/MMW/FT/014:Maternity Care: Perspective of Mothers and Midwives in Primary Health Centres, Obio/Akpor Local Government Area, Rivers State
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ABSTRACT

Introduction: Maternal mortality and morbidity due to pregnancy and childbirth is still high in society and has often been attributed to lack of quality maternity care, which comprises antenatal care, childbirth care, and postnatal care services.

Objectives: Specifically, the study assessed midwives' perceptions of maternity care, ascertained attitude of midwives towards provision of maternity care, determined mothers' opinions about midwives' attitude towards provision of maternity care, and the barriers to satisfactory maternity care.

Method: Design employed was qualitative. An in-depth interview was conducted. Twenty-four participants comprising twelve registered midwives and twelve mothers were sampled from two Primary Health Centresusing purposive and convenient sampling techniques. Instrument for data collection was an interview Guide. Data collected were presented using thematic analysis. This was achieved by summarizing the interview through generation of codes to capture recurrent themes.

Results: Majority of the respondent have good understanding of the concept, ideology and components of maternity care. Majority of the midwives have positive attitude towards provision of maternity care. Most women who participated in the study had encouraging opinions about attitude of midwives towards provision of maternity care. Barriers to satisfactory maternity care include lack of in-service training for staff, low manpower, poor funding, low incentive and lack of material and equipment.

Conclusion: Midwives should develop positive perception and attitude towards satisfactory provision of maternity care, knowing that it has the potential to reduce maternal/infant mortality and morbidity. More midwives should be recruited into healthcare facilities.

Keywords: Midwives, Mothers, Perspectives, Maternity Care, Primary Health Centres.

G2020/PUT/MSc/MMW/FT/044:Handwashing Compliance among Nurses/Midwives Caring for Newborns in Selected Health Facilities in Oti Region, Ghana
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ABSTRACT

Background: Hand hygiene is the most effective way of preventing spread of infectious diseases. To reduce hospital-acquired infections, hospitals are to achieve handwashing compliance of at least 90%.

Objective: Study examined handwashing compliance among nurses/midwives caring for newborns in selected hospitals in Oti Region, Ghana.

Methods: The study adopted a cross-sectional research design, using a simple random sampling to select 100 nurses/midwives from study population of 134 nurses/midwives working at newborn areas in three hospitals in Oti region. Validated structured questionnaire developed from a review of literature was administered electronically to respondents. Data collected was analyzed using frequencies, percentages and mean scores generated by SPSS version 23.

Result: Availability of staff handwash basins were reported by 100 respondents. Regular water supply was reported to be available by 98.0% of respondents. Alcohol (60-90%) hand rub availability at points of care was 98.0%. Nurses (86.05%) were observed to be more compliant to moments of handwashing than midwives (77.72%). 80.0% of the respondents washed hands with soap and water when entering the neonatal units/wards. All, (100%) of the respondents washed hands with soap and water before direct contact with newborns. 61.0% of the respondents sanitized hands with alcohol rub before entering neonatal units. About 72.0% used alcohol hand rub before having direct contact with the newborn. All (100%) the respondents washed hands with soap and water before touching clean sites during newborn care and after exposure to newborn fluids.

Conclusion: Hand hygiene compliance in the selected facilities was more than 90% as recommended W.H.O. moments of handwashing.

Key Words: Compliance,handwashing, alcohol hand rub, newborn, soap, water, Oti Region, Ghana.

G2020/PUT/MSC/MMW/FT/008: Nutrient Composition of Breast Milk Collected from Nursing Mother Resident in Ibaa Emohua Local Government Area

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ABSTRACT

Background: Human milk is the optimal source of nutrient for infants for the first 6-month breast milk provided (1) core required nutrients which includes proteins liquids carbohydrates and minerals (2) Bioactive factors especially immunological factors, to protect infants from invading microorganism. Breast feeding also provides many other short terms and long-term benefits to infants. The aim of the study is to assess the nutrient composition of breast milk collected from Nursing mother resident in Ibaa.

Method:

The research will adopt an experimental study design, breast milk samples will be collected from consenting nursing mothers who meet the inclusion criteria, by self-milking. A laboratory anaylsis will be conducted for specific nutrients such as protein, fat, carbohydrate, vitamin, minerals trace elements, fibre and water using mass spectrometry and gas chromatography.

Results: Breast milk has a standard composition of 87% of water, 3.8% of fat, 1.0% of protein and 7% of carbohydrate which is majorly in form of lactose.

Conclusion

Values obtained from the laboratory analysis will be compared with the standard universal values. A major deviation from the standard nutrient composition of breast milk many be attributed to the heavy environmental pollution as a result of the artisanal oil refining activities in the community.

Key words: Breast milk, human milk, Breast milk composition, nutrient composition of breast milk, non-nutrient composition of breast milk, crude protein composition of breast milk, crude fat composition of breast milk, crude Carbohydrate composition of breast milk, crude Moisture composition of breast milk, crude fibre composition of breast milk.

G2020/PUT/MSc/MMW/FT/027: Knowledge and Attitude of Midwives towards Ethico Legal Standards of Patients' Right in Public Health Centres in Obio/Akpor Local Government Area, Rivers State

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ABSTRACT

Background: The rate at which pregnant women visits traditional birth attendant in Obio/Akpor local Government Area is quite alarming. These women are more comfortable with traditional birth attendant because they are treated with respect, love and dignity; and their complains and opinions considered as compared to health centres where they are maltreated, shouted-at, embarrassed, disrespected, and most time their dignity violated. The issues raised by the patients are issues that have been addressed by the Ethico legal standards of patients' right which is applicable at all health in Nigeria.

Objective: to determine theknowledge and attitude of Midwives in public health centres in Obio/Akpor Local Government Area towards ethico legal standards of patients' rights.

Methods: The research was hinged on deontology, principlism and teleology theories and uses descriptivesurvey design. Data was collected through a questionnaire which were distributed to 120 midwives in Obio/AkporLga. The questionnaire was literature developed and formulated on a 4-point Likert scale. Consent was gotten from the midwives before questionnaire administration. Data were analyzed using mean, standard deviation, and spearman ranking on SPSS.

Results: The Midwives possess high level of knowledge (3.5 ± 0.585), and positive attitude (3.4 ± 0.607). Their health centres have a structure and culture that encourages the practice of patient right (3.0 ± 0.722). A significant relationship was found between years of practice and attitude ($R=0.789, p=0.000$).

Conclusion: Midwives in public health centres in Obio/Akpor Local Government Area have good knowledge and positive attitude towards the ethico legal standards of patients' rights.

Key words: patient bill of right, Ethico legal standards, knowledge, attitude

G2020/PUT/MSc/MMW/FT/007: Willingness and readiness to use Digital technology in midwifery practice among midwives at tertiary health facilities in Uganda

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ABSTRACT

Background: In the past 20 years, the use of digital technologies to improve maternal health and support service provision has exponentially grown. These digital forms of support include the internet, mobile technologies such as mobile software applications or apps, wearables, text messaging, social media, telecare, and remote monitoring devices. To address health needs, digital technology for health has become a salient field of practice for employing routine and innovative forms of information and communications technology. It has the potential to transform how health services are accessed and delivered.

Objective: To explore the willingness and readiness to use digital technology in midwifery practice among midwives at tertiary health facilities of Buikwe district in Uganda

Methods: using purposive sampling technique, 15 interviews were conducted with 10 midwives and 5 key informants from Kawolo and St. Charles Lwanga hospitals, to explore the willingness and readiness to use digital technology in midwifery practice. The data were analyzed using thematic content analysis

Results: Midwives indicated six important areas of consideration when getting ready to use digital technology: 1) improved patient's care 2) communication; 3) the implementation process including training and education; 4) information sharing, 5) age, and 6) attitudes towards digital technology.

Conclusion: Midwives are willing and ready to use digital technology in their practice stating that it will ease their work, many patients can be attended to in a short time, and as well as improve on knowledge and information sharing during patient's care.

Key words: Willingness, readiness, digital, technology, midwifery, practice, tertiary health facilities, Uganda.

G2020/PUT/MSc/MMW/FT/026: Nursing Informatics Competencies of Teachers of Nursing and Midwifery Progammes in Bayelsa State, Nigeria

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ABSTRACT

Introduction: Nursing informatics competence refers to possessing the necessary knowledge, skills, and capacity to execute specialized information management activities that could aid nursing/clinical decision-making.

Aim: This study examined the nursing informatics competencies of teachers of nursing and midwifery programs in Bayelsa, Nigeria.

Methods: A cross-sectional descriptive design was applied on a random selection of 169 consenting nurse-educators/teachers in the nursing and midwifery programmes in Bayelsa. The standardized Farzandipour's Nursing Informatics Competency Questionnaire (FNICQ) was used for data collection. All collected data were summarized using descriptive statistics and hypotheses were tested with Chi Square test of independence at a 5% level of significance. Data was analyzed with the aid of SPSS 25 software.

Results: Majority of the respondents had moderately good computer knowlegde (87.0%), informatics literacy (83.4%), and informatics skills(81.1%). Attending informatics trainings was significantly associated with poor computer knowledge (p = 0.030), but not years of teaching experience, highest educational qualification, and school type (p > 0.05). Informatics literacy was more significantly associated with college school type (p = 0.030) rather than university, but not with years of teaching experience, highest educational qualification, and attending informatics trainings (p > 0.05). There was no significant association between informatics skills (p > 0.05) and the socio-demographic variables.

Conclusion: The teachers have moderately good informatics competencies that are determined by school type and attendance to informatics trainings but not years of teaching experience and educational qualification. Frequent implementation of highly targeted and standardized informatics trainings and drills in universities is highly recommended.

Keywords: Nursing informatics, literacy, midwifery, information management, Nigeria

G2020/PUT/MSc/MMW/FT/020: Perineal Care by Midwives in Baptist Hospitals Douala Cameroon
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ABSTRACT

Background: Perineal tear either occurs spontaneously because of an unaided vaginal birth or a surgical cut made on the perineal body to widen the vaginal opening assisting vaginal birth. Globally about 85% and more women experience perineal tear during childbirth with up to 11% of all vaginal births resulting in a third- and fourth-degree perineal tear. The study aimed to assess the confidence and educational needs of midwives on perineal management at Baptist hospitals Douala Cameroon.

Methods: Descriptive cross sectional survey research design was used in the study. The sample size of the study was 110 midwives selected from 150 midwives working in Baptist Hospitals Douala, Cameroon. The study used a self-developed instrument for the study. The instrument was subjected to a reliability testing using Cronbach's Alpha and a reliability coefficient of 0.81 was obtained. The Research questions were analyzed using mean, standard deviation, simple percentage, and frequency counts, while the null hypothesis was tested using t-test inferential statistics at 0.05 level of significance.

Results: The result of the study revealed that the level of knowledge on the various perineal management techniques to prevent perineal tears during childbirth at the Baptist hospitals, Douala Cameroon is high, midwives at Baptist hospitals Douala, Cameroon have confident in the identification and repair of the various degrees of perineal tears and that there is need for midwives' to frequently undergo training on perineal management at Baptist hospitals Douala, Cameroon.

Conclusion: The study, therefore, recommends that there should be an improvement in perineal management educational programmes that are designed to help midwives improve on their clinical skills, perineal protection techniques and boost midwives' confidence in decision making.

Keywords: Midwives, perineal, management, technique, Cameroon.

PROGRAMME OBJECTIVES

ACE-PUTOR was established at the University of Port Harcourt in November 2018, with the stated objective of increasing the quality of public health and toxicology education through regional specialisation in applied research, up front University-Industry linkage and enhanced regional and global coordination with development partners and sundry stakeholders.

MISSION STATEMENT

To serve as a veritable platform for the convergence of highly skilled human resources from within and outside the University of Port Harcourt; build highly motivated professionals equipped with cutting-edge skills set and core competencies required to train practitioners in public health and toxicology research; including special projects, consultancy and community services.

PROGRAMME OBJECTIVES

Available postgraduate programmes in the Centre include:

➢ PGD in Environmental & Petroleum Toxicology, Nursing Science
➢ MSc in Midwifery/Child Health Nursing (only one in Nigeria), Public Health Nursing, Fertility Nursing, Environmental & Petroleum Toxicology
➢ PhD in Midwifery, Child Health Nursing, Nutritional Biochemistry/Toxicology, Environmental Toxicology, Environmental Health

SHORT COURSES

Research	Systematic Reviews	Grantsmanship
Environment	Toxicology	Public Health

PROGRAMME DELIVERY MODE

➢ Our rigorous training follows a modular operational course delivery structure that brings out the very best in our students.
➢ Examinations are administered at the completion of each module.
➢ Students meet didactic Course Instructors and engage in group activities
➢ They participate in seminars and self-directed learning/term papers
➢ Individual course work, research projects/practical sessions
➢ Innovative problem-based learning in flipped classroom setting
➢ Situation-blended learning, simulation
➢ Video clips teaching aids, etc.
➢ PowerPoint slides/Interactive boards

All courses are delivered by highly experienced and motivated global faculty with requisite qualifications. Students participate in formative and simulative assessments at the end of each module. There is also a compulsory students' feedback mechanism and lecturer evaluation. Nothing is left to chance!

OUR ADVANTAGE

* Emphasis on collaboration and interdisciplinary research   * Irresistible drive for excellence   * Support for teaching * Availability of a language laboratory for training non-English students   * e-library facility
* Uninterrupted power supply * Access to electronic learning resources   * Excellent learning environment   * Excellent students' support services *Uninterrupted learning calendar   * Dedicated hostel facility for students   * Local and international internship placements   *Support for conference participation and research publication* Transparent academic governance   * Partnerships, networks, and collaborations – industry, multi-sector   * Highly supportive central university administration
* Location is in the epicentre of oil & gas exploration in Africa   *Scholarships opportunities for regional students   * Compelling business and value prepositions