Abstract #: *1.023_WOM*

Health, Information, Perception and Demographic Variables as Correlate of Gender Equality in Science Technology Engineering and Math (Stem) Education in South-West Nigeria

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Background: With the level of efforts and interventions by researchers and organizations around the world towards gender equality in Science Technology Engineering and Math (STEM), the number of women participation is still very low. UNESCO Institute for Statistics (2015) revealed that female representation is only about 30% of the total population in STEM while in Africa it is about 17% (Ekine, 2013). This statistics, raises the question of what could be responsible for the resistant disparity? Could it be that girls at the foundational level do not have adequate career information about STEM and all it entails? What are their perceptions of Mathematics and sciences, are there some demographic issues? There is need to discover what the real causes of gender disparity in mathematics and sciences are from the junior secondary school, a period that precedes the choice subjects that form student's career paths. This will provide an empirical basis for effectively bridging the gender gap in STEM in Nigeria thereby building and releasing the necessary latent human resources to sustain development and compete in the global economy as well as ensuring inclusivity of girls and women.

Ekine (2013) affirmed that a country's ability to secure good health, fight diseases, protect the environment, produce food for its people, and develop new industries and technologies is dependent on the scientific knowledge and skills of its people. Consequently, more women are needed in STEM to be active participants in scientific development particularly in health related issues, application and decision-making thus, ensuring that scientific initiatives are implemented to adequately address the needs and preferences of both sexes especially those of women. It is against this background that the study seeks to investigate Health, Information, Perception and Demographic variables as correlate of gender equality in STEM education in South-West Nigeria. On the long run, findings from a study such as this would highlight specific deficiencies associated with attracting and retaining girls in Mathematics and Science and proffer solutions to the problems.

Methods: Survey.

Findings: In view.

Interpretation: In view.

Abstract #: *1.024_WOM*

Video Analysis System as a Tool to Improve the Quality of Basic Emergency Obstetric and Neonatal Care through Simulation Training in Bihar, India

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Background: Limited-resources and expertise precluded satisfactory quality of care during childbirth in Bihar, India. UCSF and PRONTO International collaborated with CARE India to integrate on-site basic emergency obstetric and neonatal care (BEmONC) simulation and team-training into an ongoing mobile mentorship model in 320 primary health centers (PHCs). The feasibility and effectiveness of video analysis was evaluated for monitoring the uptake of evidence-based practices (EBP) and teamwork and communication (T&C) used in simulation. The aim of this analysis is to provide ongoing programmatic feedback to the nurse midwife mentors (NMMs).

Methods: Altogether 120 Nurse-Midwife Mentors (NMMs) were trained in techno-managerial aspects of teaching, team building, behavior change communication and advocacy. The goal was to enable them through repeated PHC visits, in mentoring Auxiliary Nurse Midwives for the management of childbirth and relevant complications. The NMMs video recorded every simulation through a video camera and then debriefed as a part of mentoring. The recorded videos were labeled to ensure confidentiality and delivered to the project headquarters through an encrypted USB drive. Selected videos were coded using Studiocode video analysis software by a technically competent team of Hindi (local language) speaking video analysts. Coded data was then analyzed to provide feedback/training recommendations to the NMMs.

Findings: A total of 10,000 videos will be collected and contents of 4,000 videos spanning ∼88,000 minutes will be analyzed. To date, simulations and debriefs have been completed in 240 PHCs, during three rounds spanning 8 months. A total of 1,490 simulation videos and 154 debrief videos were coded, analyzed, and used for programmatic feedback.

Interpretation: Throughout the first three of this four round project, the analyzed videos provided guidance in: 1) measuring the use of EBP and T&C; 2) programmatic decision making; 3) addressing technical issues; and 4) giving comprehensive feedback to NMMs to guide mentoring and facilitation. While the transferring, coding and analyzing large video files were labor intensive; they still appeared to be less costly than direct observation. Thus large-scale video monitoring system seemed feasible and useful tool for program implementation and evaluation in resource-limited settings.

Abstract #: *1.025_WOM*

A Multi-Center Study of Automated Breast Ultrasound System for the Diagnosis of Breast Cancer in China

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Background: Access to breast cancer screening in China is primarily limited by the shortage of qualified radiologists in primary hospitals. Automated Breast Ultrasound System(ABUS) is a potential method to alleviate current shortages in accessible breast cancer screening. This study aims to evaluate the effectiveness of ABUS by comparing it with Hand Held Ultrasound(HHUS) and Mammography(MAM).

Methods: This study takes place at 3 cancer hospitals and 2 general hospitals. Women aged 30-69, who visited breast surgeons, without visible, suspicious signs of breast cancer and had signed Informed Consent Form were eligible for HHUS and ABUS, and women older than 40 also received MAM. All images were interpreted by qualified doctors based on Breast Imaging Reporting and Data System (BI-RADS). Categories 4-5 were considered to be "suspicious" lesions. The consistency rates and Kappa statistics were calculated to assess the reliability of ABUS compared with HHUS or MAM in each age or hospital group. Participants were divided into four groups by the age of ten, and ABUS was compared with MAM in the older groups (>40 years old) only.

Findings: By taking unilateral breast as the unit of analysis, we have acquired 1734 results for HHUS and ABUS, and 1108 results for MAM. The consistency rates in each age group between HHUS and ABUS were 95.37%, 95.97%, 96.07% and 92.78%, and the Kappa values were 0.79, 0.88, 0.89 and 0.81, respectively; The consistency rates between MAM and ABUS were 92.12%, 92.41% and 93.89%, and the Kappa values were 0.74, 0.77 and 0.83 respectively. In the cancer hospitals, the consistency rates between HHUS and ABUS or MAM were 95.61% and 93.33%, and the Kappa values were 0.87 and 0.81; while in the general hospitals, the consistency rates were 95% and 90.14%, and the Kappa values were lower (0.71 and 0.55).

Interpretation: Reliability was observed when comparisons were made between each age group. ABUS images can be collected by technicians and interpreted by qualified doctors. Considering the absence of qualified radiologists, ABUS may play an important role in general and primary hospitals. Other clinical performance indicators of ABUS, including sensitivity and specificity, need to be further demonstrated.

Abstract #: *1.026_WOM*

Prevalence of Teenage Pregnancy at Saint-Nicolas Hospital in Saint-Marc, a Community Hospital in Haïti

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Background: Teenage pregnancy is a significant public health problem. It affects 10% of births worldwide and has harmful health effects on mothers and newborns. Additionally, it is stigmatized in many countries, resulting negative socioeconomic consequences. Several risk factors have been identified, however none of the previous studies conducted in the Caribbean explored the role of Carnival. Carnival is often thought to be conduit for unplanned sexual encounters. This study aimed to determine the proportion of teen pregnancy at Saint-Nicolas Hospital (HSN) broadly, and at the different points were the pregnant woman (PW) sought care as well as testing whether the proportion increased during the carnival period.

Methods: This cross sectional study included PW seen from October 2013 to September 2014 in HSN for antenatal care, delivery and post abortion care. These women were classified according to the first service received. Teenage pregnancy was defined as pregnancy in a woman under 20 years. Data on their last menstrual period was used to determine the quarter in which the women became pregnant. The carnival period included January to March. Data were extracted from the register, entered into Microsoft excel 2013, and analyzed using Epi Info TM 7 and SPSS 20. We report on proportion of all pregnancies involving teenage pregnancies and used chi-square to test statistical significance of difference in proportions of teenage pregnancies by month of conception and type of service.

Findings: Among 5232 registered pregnancies, 12.82% involved a teen pregnancy. This prevalence was 10.54% among the 2391 woman seen in the delivery service, 14.22% among the 2455 seen for antenatal care, and 18.13% among the 386 seen for post abortion care (p<0.0001). Based on the quarter when women became pregnant, proportion of teen pregnancy varied from 13.34% to 14.84% during the carnival period (p=0.97).

Interpretation: The proportion of teenage pregnancy among all pregnant women seeking services in HSN is slightly higher than the global average. A larger proportion were teenage pregnancies in the post abortion service than the other two, but there was no association with carnival period. Then, it is important to sensitize the population about it throughout the year.

Abstract #: *1.027_WOM*

Rates of Viral Suppression among HIV-positive Women in Rural North-central Nigeria

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Background: The effectiveness of antiretroviral drugs in prevention of mother-to-child transmission (PMTCT) and suppression of viral load (VL) is well-documented. In addition, viral suppression is in line with the 90-90-90 global strategy of HIV elimination. To determine adherence and effectiveness of PMTCT treatment, we assessed VL in postpartum HIV-positive women enrolled in a large PMTCT implementation research study in rural North-Central Nigeria

Methods: Within this prospective cohort study, 497 HIV-positive pregnant women were enrolled from 20 Primary Healthcare Centers (PHCs). Viral load (VL) testing (blood test with lower limit of detection of <20 copies/ml) was performed at 6 months post-partum. Per