



UW MIRT 2008 Abstracts

Active trachoma infection in relation to access to water and latrine facilities in Northern Ethiopia. I Golovaty, L Jones, B Gelaye, M Tilahun, H Belete, A Kumie, Y Berhane, and MA Williams. (University of Washington, Multidisciplinary International Research Training Program, Seattle, WA, Addis Continental Institute of Public Health, Addis Ababa, Ethiopia, and Addis Ababa University, Addis Ababa, Ethiopia).

Objective: This study aims to determine the prevalence and correlates of active trachoma in Ankober, Ethiopia.

Methods: A cross-sectional community-based study was conducted during July 2007. A total of 507 children (ages 1-9 years), from 232 households were included in the study. All children were examined for trachoma by ophthalmic nurses using the WHO simplified clinical grading system. Interviews and observations were used to assess risk factors. Logistic regression procedures were used to determine associations between potential risk factors and signs of active trachoma.

Results: Overall, the prevalence of active trachoma was found to be 53.9% (95%CI 49.6%-58.2%). Presence of fly-eye (fly contact with the eyelid margin during eye examination) (Odds Ratio (OR)= 4.03 95% CI 1.40-11.59), absence of facial cleanliness (OR=7.59; 95%CI 4.60-12.52), an illiterate mother (OR= 5.88; 95%CI 2.10-15.95), lack of access to piped water (OR= 2.19; 95%CI 1.14-6.08), and lack of access to latrine facilities (OR= 4.36; 95%CI 1.49-12.74) were statistically significantly associated with increased risk of active trachoma.

Conclusion: Active trachoma among children 1-9 years of age in Ankober is highly prevalent and significantly associated with a number of risk factors including access to water and latrine facilities. Trachoma prevention programs that include improved access to water and sanitation, active fly control, and hygiene education are recommended to lower the burden of trachoma in Ankober, Ethiopia.

Prevalence of Workplace Abuse and Sexual Harassment among Female Faculty and Staff.

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Objectives: To determine the one year prevalence of workplace abuse and sexual harassment and to determine the extent of their associations with symptoms of depression.

Methods: A total of 387 female faculty and staff from colleges in Awassa, Ethiopia completed a self-administered questionnaire which collected information about relationships, mood and feelings, thoughts and satisfaction concerning the workplace, and experiences with sexual harassment. Symptoms of depression were evaluated using the Patient Health Questionnaire (PHQ-9). Logistic regression procedures were employed to calculate odds ratios (OR) and 95% confidence intervals (CI).

Results: The 12 month prevalence of either workplace abuse or sexual harassment was 86.3% ; with 39.5 % reporting workplace abuse only, 4.1% of them reporting sexual harassment only, and 42.6% reporting experiences of both sexual harassment and workplace abuse. Overall, the mean depression score for this cohort was 3.7 (standard deviation 4.2, range 0-19), and 9.3% of the cohort were identified as having moderate or moderately severe depression. The proportion of participants with depression were statistically significantly elevated in relation to reported experience of workplace abuse and sexual harassment (p -value = 0.001). Compared with women reporting no experience with workplace abuse or sexual harassment, those who reported experiencing both workplace abuse and sexual harassment had an 8.00 fold increased risk of depression (OR=8.00, 95% CI:1.05-60.85). Inferences from this analysis are limited by our relatively small sample size as reflected by the wide 95% CI.

Conclusion: Workplace abuse and sexual harassment are highly prevalent, and are positively correlated with symptoms of depression among college female faculty and staff in Awassa, Ethiopia. Future policies should include a combination of education, health, and public policy initiatives that clearly outline the problem and consequences of workplace abuse and sexual harassment in educational settings.

Vaginal douching and other risk factors of bacterial vaginosis in Peru. N Chávez, H Molina, J Sanchez, B Gelaye, SE Sanchez. (University of Washington, Multidisciplinary International Research Training Program, Seattle, WA and Dirección de Salud V Lima Ciudad, Lima, Peru, Instituto Nacional de Salud, PERU)

Objective: Bacterial vaginosis (BV) is an infection characterized by a change in the micro flora of the vagina. BV has been associated with adverse pregnancy outcomes and increased risk of acquisitions of sexually transmitted diseases (STD). In this study, we sought to determine the association of douching and other behavioral risk factors in relation to BV.

Methods: This cross-sectional study was carried out among 1252 women attending family planning clinics in Lima, Peru in 1997. Structured questionnaire was used to collect information on socio-demographic and lifestyle characteristics of women. BV was diagnosed by the Nugent's score. Logistic regression procedures were employed to estimate odds ratios (OR) and 95% confidence intervals (95% CI).

Results: Mean age of participants was 25.1 ± 4.7 and 23.4% had more than 11 years of formal education. The prevalence of BV was 20.1% and significantly associated with a number of behavioral risk factors. Women who practice douching were 2.28-times (OR=2.28 95% CI: 1.0-5.0) more likely to have BV compared with those who don't practice. Having two or more sexual partners was also associated with a two folds (OR=2.0 95% CI: 1.2-3.5) increased risk of BV. Those who started sexual intercourse at a younger age were 1.4-times (OR=1.0-1.9) more likely to have BV.

Conclusion and Implication: Douching is one of main risk factors associated with BV among Peruvian women. Programs aimed at women's health must address the adverse health outcomes associated with douching. Future population based studies that investigate associations of douching and adverse reproductive and gynecologic health outcomes need to be conducted.

Preterm Delivery Risk in Relation to Maternal Occupational and Leisure Time Physical Activity among Thai Women. K Nelson, V Lohsoonthorn, and MA Williams. (University of Washington, Multidisciplinary International Research Training Program, Seattle, WA and Faculty of Medicine, King Chulalongkorn University, Bangkok, Thailand)

Objective: We evaluated associations of maternal occupational physical exertion and leisure time physical activity (LTPA) with preterm delivery (PTD) in aggregate and in subgroups (i.e., spontaneous preterm labor, preterm premature rupture of membrane, medically induced preterm delivery, moderate preterm delivery [gestational age 32-36 weeks], and very preterm delivery [<32 weeks]) among Thai women.

Study Design: This case-control study included 467 PTD cases and 467 term controls. Maternal occupational exertion during pregnancy, as well as habitual engagement in LTPA before and during pregnancy was assessed using a structured questionnaire administered after delivery. Logistic regression procedures were used to examine relationships between both occupational and leisure time physical activity and PTD.

Results: After controlling for potential confounders, women who reported heavy physical occupational exertion during pregnancy, compared with other women, had a 2.3-fold increased risk of PTD overall (OR=2.31; 95% CI 1.08-4.92). Very PTD (OR=4.36; 95% CI 1.50-12.61) and medically indicated PTD (OR=3.86; 95% CI 1.49-10.03) were particularly strongly associated with heavy occupational exertion. Maternal participation in LTPA before pregnancy was associated with a 24% reduction in PTD risk overall (OR=0.76; 95% CI 0.58-1.01), though no similar pattern in risk reduction was observed for LTPA performed during the first 6 months of pregnancy (OR=0.96; 95% CI 0.67-1.37).

Conclusion: Consistent with some previous reports, we noted that heavy occupational physical exertion is associated with at least a doubling in PTD risk. Patterns of associations of PTD risk with LTPA were less well delineated in this Thai population.

Risk Factors of Early and Late Onset Preeclampsia among Thai Women. R Fang, A Dawson, V Lohsoonthorn, and MA Williams. (University of Washington, Multidisciplinary International Research Training Program, Seattle, WA and Faculty of Medicine, King Chulalongkorn University, Bangkok, Thailand)

Objective: To examine risk factors of early and late onset of preeclampsia among Thai women.

Study Design: A case-control study of 150 preeclampsia cases with an equal number of normotensive controls was conducted among women who delivered live born singleton infants at King Chulalongkorn Memorial Hospital, Rajavithi Hospital, and Police General Hospital in Bangkok, Thailand from July 2006 to November 2007. Multivariable logistic regression analysis procedures were used to calculate odds ratios (OR) and 95% confidence intervals (CI) of potential risk factors associated with preeclampsia.

Results: Young maternal age (<20 years) (OR 1.99; 95% CI 0.70-5.68), advanced maternal age (30-34 years) (OR 2.30; 95% CI 1.03-5.17), a prior history of hypertensive disorders (OR 7.83; 95% CI 0.88-69.44), pre-pregnancy BMI ≥ 30 kg/m² (OR 5.25; 95% CI 1.80-15.32), and failure to use prenatal care services (OR 6.37; 95% CI 1.26-32.27) were associated with increased risk of preeclampsia. ORs of similar magnitude were observed when risk factors of early and late onset preeclampsia were assessed separately.

Conclusion: Advanced maternal age, obesity, and no utilization of prenatal care were covariates identified in this study as risk factors for preeclampsia. As global trends move toward delayed childbearing and increasing obesity, the incidence of preeclampsia is likely to increase. Efforts to promote adult weight maintenance and utilization of early prenatal care may be important components in preeclampsia prevention programs.

A Case-Control Study of Preterm Delivery Risk Factors According to Clinical Subtypes and Severity. M Ip, E Peyman, V Lohsoonthorn, and MA Williams. (University of Washington, Multidisciplinary International Research Training Program, Seattle, WA and Faculty of Medicine, King Chulalongkorn University, Bangkok, Thailand)

Objective: We evaluated risk of preterm delivery (PTD) in relation of maternal socio-demographic, behavioral, and medical characteristics among Thai women.

Study Design: Our case-control study included 467 term controls and 467 preterm delivery cases. PTD was studied in aggregate and in subgroups (i.e., spontaneous preterm labor and delivery [SPTD], preterm premature rupture of membrane [PPROM], medically indicated preterm delivery [MIPTD], moderate preterm delivery [gestational age 32-36 weeks], and very preterm delivery [<32 weeks]). We used multivariable logistic regression procedures to estimate odd ratios (OR) and 95% confidence intervals (CI) of potential PTD risk factors.

Results: Advanced maternal age (≥ 35 years) was associated with a 2.27-fold increased PTD risk overall (95% CI 1.40-3.68); and with a 3.79-fold increased risk of MIPTD (95% CI 1.89-7.59). Young maternal age (<20 years) was associated with a 2.07-fold increased risk of SPTD (95% CI 1.19-3.61). Very PTD risk was increased for young (OR=2.13; 95% CI 0.91-5.01) and advanced (OR=3.64; 95% CI 1.44-9.16) maternal age. Prior history of PTD was associated with a 3.64-fold increased PTD risk overall (95% CI 1.87-7.09), and with a 5.69-fold increased risk of MIPTD (95% CI 2.44-13.24). Lean women (<18.5 kg/m²), compared with normal weight women (18.5-24.9 kg/m²) had a 1.70-fold increased risk of PTD (95% CI 1.21-2.39). Risk of SPTD (OR=2.16, 95% CI 1.44-3.24) and very PTD (OR=2.45, 95% CI 1.35-4.45) were also elevated in lean versus normal weight women. Conversely, overweight (25-29.9 kg/m²) and obese (≥ 30 kg/m²) women had a 1.83-fold (95% CI 0.95-3.52) and 2.35-fold (95% CI 0.85-6.50) increased risk of MIPTD, when compared with normal weight women. These associations, however, did not reach statistical significance.

Conclusion: PTD risk factors among Thai women are largely similar to those identified in studies of North American and European women. Our findings also suggest heterogeneity in risk factors for clinical subtypes of PTD.