

Health Systems: Policy and Planning II

Chairpersons: A Samuels, C Gorre

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Diabetes and related risk factors disproportionately affect Caribbean women: An updated systematic review and meta-analysis of diabetes and determinants

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Objective: The Caribbean is one of the only two regions in the world where the prevalence of diabetes is higher in women than in men. This systematic review analysed the latest available data on diabetes and its risk factors in the Caribbean by gender and other social determinants.

Methods: We updated a systematic review to December 2016 that had initially covered January 1, 2007 to December 31, 2013. In addition, we included WHO-related surveys. We searched for studies conducted in the Caribbean that presented the distribution of one or more social determinants in adults by diabetes, its outcomes and risk factors. Meta-analysis was conducted on diabetes and gender the only relationship with sufficient data for analysis.

Results: A total of 9212 manuscripts were identified. Of those, 282 were selected for full text review and 114 papers for abstraction. Thirty-five papers, including STEPS surveys, had sufficient information for meta-analysis. Women were more obese (OR: 2.1, 95% CI: 1.65, 2.69), less physically active (OR: 2.18, 95% CI: 1.75, 2.72) and had a higher prevalence of diabetes (OR: 1.48, 95% CI: 1.25, 1.76) than men. Smoking rates were higher for men than women (OR: 4.27, 95% CI: 3.18, 5.74).

Conclusion: Our analyses added 32 additional studies to the previously conducted systematic review of which 13 were added to the meta-analysis. Diabetes and its risk factors continued to disproportionately affect women in the Caribbean. Smoking interventions should be targeted at men in the region.

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Caribbean network of pharmacovigilance and post-market surveillance (VIGICARIB): First reports

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Objective: This paper aimed to describe suspected adverse drug reactions (ADRs) and substandard and/or falsified (SF) medical products reported by CARICOM member states in the initial phase of the regional network for pharmacovigilance and post-market surveillance (VIGICARIB).

Methods: A structured reporting form was developed and sent to country representatives in September 2017. Spontaneous reports were received from national centres *via* email, and sorted to remove duplicates and invalid cases. Reports were cleaned to remove duplicates and to classify based on the World Health Organization terminology.

Results: Forty-four of 50 ADR reports were received from St Vincent and the Grenadines (70.5%), Dominica (27.3%) and the British Virgin Islands (2.3%) *via* pharmacists (59.1%) and nurses (40.9%). Patients were mostly female (70.5%), with an average age of 48 years. Common ADRs reported were urticarial/rash (27.3%), angioedema/ swollen lips (13.6%), headache (13.6%) and cough (11.4%). Suspected medicines included: penicillins/cephalosporins (27.3%), ACE-inhibitors (22.7%), oral hypoglycaemic agents (13.6%) and thiazides (9.1%). Twenty-eight reports of suspected SF products were received from Trinidad and Tobago (92.8%) and Haiti (7.1%), *via* pharmacists (57.1%) and nurses (28.6%). Oral (50%) and intravenous medicines (28.6%) were the most common dosage forms, whereas antibiotics (25%) were the most common therapeutic class. Common issues were due to physical anomalies (53.6%), package issues (25%) and device defects (17.9%).

Conclusion: The VIGICARIB network may strengthen monitoring and evaluation of medicines safety, as well as regulatory activities to protect public health in the

Caribbean, through information exchange, resource-sharing and capacity-building.

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How and for whom do parental relationships predict problem behaviours among English-speaking Caribbean youth: A look at gender differences and the role of depressive symptoms

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Objective: To test a gender stratified model, among English-speaking Caribbean (ESC) youth, in which parent-adolescent relationships predict problem behaviours both directly and indirectly through depressive symptoms.

Methods: Data were pooled from nine ESC countries that completed the World Health Organization (WHO's) Global School Health Survey (n = 10 932). Study participants were 49.5% male and had a mean age of 14.09 years (SD = 0.02). Structural equation modelling (SEM) was used to test the model.

Results: Structural equation modelling revealed an adequate model fit (CFI = 0.97, RMSEA = 0.02, $X^2 = 222.28$, $p < 0.001$). Among both males and females, a stronger parent-adolescent relationship was directly linked to a lower likelihood of four problem behaviours: skipping school, fighting, alcohol use and having experienced sexual intercourse (copulation). Standardized path coefficients ranged from -0.18 to -0.30 and were all significant to at least the $p = 0.05$ level. A direct path from parent adolescent relationship to cigarette use was only significant among boys ($\beta = -0.28$, $p < 0.001$). Among both males and females, a stronger parent-adolescent relationship was indirectly, through lower depressive symptoms, related to a lower likelihood of three problem behaviours: fighting, alcohol use and cigarette use. The path coefficient products ranged from -0.05 to -0.11 and the confidence intervals did not include 0. The indirect path from parent adolescent relationship to skipping school

was only observed among boys ($\beta = -0.05$, 95% CI: = -0.01, -0.08 and having experienced sexual intercourse was only significant among girls ($\beta = -0.07$, 95% CI = -0.01, -0.16).

Conclusion: The study findings suggest that a gender-specific family-focussed intervention may help to prevent problem behaviours among ESC youth, at least partially by reducing depressive symptoms.

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Sildenafil abuse among men at selected community pharmacy in a sub-urban community, Georgetown, Guyana, August 2017

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Objective: To determine if sildenafil was abused by patrons of a selected pharmacy in a large sub-urban area in Guyana in August 2017.

Methods: A cross-sectional study was performed in August 2017 where a self-administered questionnaire was given to all participants who purchased a sildenafil product and agreed to participate in the study. The questionnaire collected data on demographics, reasons for taking sildenafil, other drug-use and dosage of sildenafil. The questionnaire was piloted and validated before use in study. Convenience sampling was used.

Results: Of the 157 males who were asked to participate in the study, 119 (75.7%) agreed. Of the 119, 77 (65%) were under the age of 40 years, 74 (62%) were taking Sildenafil without the guidance of a medical professional and only 44 (37%) were taking it for the correct ailment. No participant was able to answer the question on dosing.

Conclusion: It can be concluded that there was a high probability that sildenafil was abused in the community by males. More research to determine the extent and the causes are recommended in addition to greater education campaigns and greater pharmacovigilance.