

P819 INFLUENCE OF KNOWLEDGE, ATTITUDE, MOTIVATION ON WILLINGNESS OF MOTHERS FOR THEIR DAUGHTERS TO UNDERGO HPV VACCINATION

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Background Cervical cancer is second leading cancer and cause of morbidity/mortality among Filipinas. Human papillomavirus (HPV) is a necessary cause of cervical cancer. A primary mode of prevention is use of vaccines. Before vaccinations are implemented, sociocultural issues should be addressed. The aim was to determine association of knowledge, attitude and motivational factors of mothers on their willingness for their daughters (aged 9–13 years) to undergo vaccination.

Methods This was a cross-sectional study with a pretested and validated survey given to 352 mothers.

Results 97.18% of women were willing to have the vaccine for their children. One-third of mothers had high knowledge on use of vaccines (34.93%). Women who reached college, had youngest child 11–13 years, with annual income \geq PHP 60,000, non-Catholic, and who never to a few times/year attended Church had higher knowledge. More believed getting the vaccine would not affect girl's sexual activity. Most agreed they were not viewed as bad parents. There were agreeing responses from positive attitude, and more disagreeing responses in negative attitude ($p=0.01$). More mothers agreed cost was prohibitive, with giving 2 doses, and were willing to follow doctors' recommendations. There was no difference in agreeing responses between positive and negative motivating factors ($p=0.79$). Likelihood of willingness on vaccination was twice as knowledge score and scores on positive attitude items increased. Odds of willingness increased as scores on negative attitude decreased.

Conclusion Role of knowledge and attitudes on negative perceptions on the vaccine were important predictors of willingness of mothers toward vaccination. In developing countries such as ours, there is strong need to increase knowledge of HPV, cervical cancer, and prophylactic vaccines to increase willingness of Filipino mothers to have their daughters immunized. Physicians and government agencies should put priority on HPV vaccination, making concerted efforts to decrease negative attitudes.

Disclosure No significant relationships.

P821 SEXUAL BEHAVIOR IN ADOLESCENTS BEFORE AND AFTER INTRODUCTION OF THE HPV VACCINATION IN CANADA

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Background Currently all Canadian jurisdictions have implemented school-based human papillomavirus (HPV) vaccination

into their routine immunization programs. Uptake rates in girls vary from 52.6% to 89.3% between jurisdictions. At the time of implementation, there were concerns that HPV vaccination could lead to riskier sexual health choices among adolescents. This systematic review explores the influence HPV vaccination programs on sexual behavior among adolescent girls in Canada.

Methods A systematic literature review was performed using PubMed, followed by a cited reference search. Studies were included if they reported sexual behaviors or biological outcomes in Canadian participants. We descriptively compared sexual behavior and rates of pregnancy and sexually transmissible infections (STI) in the pre- and post vaccination era or amongst vaccinated and unvaccinated.

Results In total, 38 Canadian articles were identified and four met eligibility criteria. HPV vaccination was not associated with a diagnosis of STI (OR 0.81, 95%CI 0.63–1.04 and 0.91, 95%CI 0.78–1.06, respectively). Being eligible for HPV vaccination was not associated with pregnancy (OR 0.69, 95%CI 0.49–0.98 and OR 1.01, 95%CI 0.93–1.10). One study found that girls eligible for HPV vaccination were less likely to ever have had sexual intercourse (OR 0.89, 95%CI 0.82–0.98). HPV vaccination was not associated with the lifetime number of partners for vaginal or receptive anal intercourse. There was no difference in having had ≥ 3 sexual partners within the past year. Only the lifetime number of partners for oral receptive intercourse was found to be higher among vaccinated (mean 2.50) than unvaccinated (mean 1.51) women. Use of condoms at last intercourse was slightly higher in vaccine eligible cohorts (OR 1.28, 95%CI 1.10–1.49).

Conclusion HPV vaccination has not been associated with riskier sexual behavior, increased STI or pregnancy rates among young Canadian adolescents. These findings are in line with those from an increasing number of international studies.

Disclosure No significant relationships.

P822 FACTORS ASSOCIATED WITH ONCOGENIC HUMAN PAPILLOMAVIRUS PREVALENCE AMONG AUSTRALIAN WOMEN FOLLOWING VACCINE INTRODUCTION

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Background In Australia, high and widespread uptake of the quadrivalent human papillomavirus (HPV) vaccine has led to substantial population-level reductions in the prevalence of HPV16/18 in women aged ≤ 35 years. We assessed risk factors for oncogenic HPV detection among 18–35 year old women in 2015–2018.

Methods Women attending health services across Australia provided a self-collected (vaginal) or clinician-collected (cervical) specimen for HPV genotyping (Roche Linear Array) and completed a questionnaire. HPV vaccination status was validated against the National HPV Vaccination Program Register. Odds ratios (ORs) and 95% confidence intervals (CI) were calculated for factors associated with detection of any oncogenic HPV (HPV16/18/31/33/35/39/45/51/52/56/58/59/66/68).

Results Among 1,643 women, vaccine coverage (\geq one dose) was 61.5% (69.1%, 58.7% and 41.1% among those 18–24, 25–29 and 30+ years, respectively). Oncogenic HPV prevalence was 25.4% (95% CI: 23.2–27.6%). In univariable analysis, risk factors for detection included younger age (p -trend $<$ 0.001), being a current smoker (p =0.05), and reporting more lifetime (p -trend $<$ 0.001) and recent (last 12 months) sexual partners (p -trend $<$ 0.001). In multivariable analysis, younger age (adjusted OR=1.33 [1.17–1.52]), more lifetime (adjusted OR=1.33 [1.16–1.52]) and recent sexual partners (adjusted OR=2.37 [1.77–3.16]) remained significant. There were no associations with socioeconomic status, area of residence or vaccination history. HPV16/18 prevalence was 1.4% (0.9–2.1%). In univariable analysis, risk factors for detection included older age (p =0.05), being non-Australian born (p =0.05), and being unvaccinated (p <0.001). In multivariable analysis, being unvaccinated remained the only factor significantly associated with HPV16/18 detection (adjusted OR=8.61 [2.45–30.25]). There were no associations with area of residence, socioeconomic status, or sexual behaviour.

Conclusion Oncogenic HPV was commonly detected among young Australian women; prevalence was influenced by risk factors related to sexual behaviour. In contrast, prevalence of quadrivalent vaccine-targeted types 16/18 was very low and influenced only by vaccination status. Vaccination has changed the epidemiology of HPV infection in Australia.

Disclosure No significant relationships.

P823

COMPARISON OF COPAN URISPONGE™ TO COLLI-PEE FOR THE COLLECTION OF URINE FOR HPV DETECTION WITH MOLECULAR ASSAYS

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Background Urine specimen collection is non-invasive and better accepted by patients for HPV and STI screening. The Copan UriSponge™, a Liquid Based Microbiology device, used for urine collection for culture and molecular assays. It consists of a leak-proof tube with a screw cap containing a plastic stick with sponges attached that absorb and retain the urine sample during transport preventing bacterial overgrowth. The objective of this study was to compare the UriSponge™ (US) to the Colli-Pee (CP) (Novosanis) urine devices for self-collection of first void urine (FVU) for the detection of HPV with the Seegene AnyplexII™-HPV28-assay.

Methods FVU, from 72 patients with a recent diagnosis of cervical dysplasia, attending the Gynecology clinic for colposcopy. 20 ml of first-void urine were collected using Colli-Pee™ and an additional aliquot of urine was collected in sterile containers to saturate UriSponge™. Nucleic acids were extracted by NucliSENS easyMAG (bioMérieux) from US and CP urine. HPV detection was performed using AnyplexII™

HPV28-Assay. Sample cellularity was evaluated with a quantitative real-time PCR detecting human CCR5 gene.

Results Out of 72 urines tested 24 (33.3%) were positive for HR-HPV, 16 (22.2%) for HR+LR, 8 (11.1%) for LR and 24 (22.2%) were negative from both US and CP. Comparable cellularity was present in US and CP with a mean value of 2.09E+06. Optimal concordance for all HR- HPV genotypes compared to cervical sample was demonstrated for US and CP. HPV 16, 18, 51 and 31 were most frequently HR-HPV genotypes.

Conclusion Data obtained in this study demonstrated that the Copan UriSponge™ detected all HR-HPV positive samples and good cellularity compared to the cervical swab when compared to the Novosanis Colli-Pee™ using the Seegene Anyplex™ II HPV28 assay. The UriSponge™ is easy to use for urine self-collection, it's not bulky, can be conveniently shipped by mail at a relatively low cost.

Disclosure No significant relationships.

P824

ACCURACY OF CERVICAL CANCER SCREENING USING A SELF-COLLECTED VIAL FOR HPV DNA TESTING AMONG ADULT WOMEN IN SUB-SAHARAN AFRICA

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Background Cervical cancer is caused by HR-HPV infection. Self-collection of genital specimens and HPV DNA testing are methods increasing screening rates. The GYNAUTO-CHAD study compared the acceptability and HPV DNA diagnostic accuracy of clinician-collected endocervical sample with swab (as reference collection) and genital self-collection method with veil (V-Veil-Up Gyn Collection Device, V-Veil-Up Pharma Ltd., Nicosia, Cyprus) in adult women living in N'Djamena, Chad.

Methods Five of the 10 districts of N'Djamena were randomly selected for inclusion. Peer educators contacted women to participate to the survey by coming to the clinic for women's sexual health 'La Renaissance Plus'. A clinician performed pelvic examination and endocervical sampling using swab. Genital secretions were also obtained by self-collection using veil. Both clinician- and self-collected specimens were tested for HR-HPV DNA using Anyplex™ II HPV28 genotyping test (Seegene, Seoul, South Korea). Acceptability and accuracy of both collection methods were assessed.

Results 253 women (mean, 35.0 years) were prospectively enrolled. HPV prevalence was 22.9%, including 68.9% of HR-HPV (total HR-HPV prevalence: 15.8%), with unusual HR-HPV genotypes distribution and preponderance (70%) of HR-HPV targeted by Gardasil-9® vaccine. Veil-based genital self-collection showed high acceptability (96%), feasibility and satisfaction. Self-collection by veil was non-inferior to