Prevalence of HPV Points Toward Priority on Prevention

by Linda Halcon, Ph.D., RN

Human papillomavirus (HPV), although often a benign and self-limited infection, has been linked to the development of pre-cancerous and cancerous cervical lesions. Prevalence data are limited, but previous research suggests alarmingly high rates of HPV in adolescent and young adult women.

This cross-sectional study reviewed results of Pap smears among female adolescents, in order to identify prevalence and demographic correlates of abnormalities that are consistent with HPV, and indicate a need for medical follow-up.

Sample and design
Medical records were examined from 5,734 female students enrolled in a national job training program for socioeconomically disadvantaged adolescents in 1996. Pap smear findings were dichotomized into “suggestive of HPV” and “not suggestive of HPV,” based on findings of dysplasia or more severe results. Prevalence rates and confidence intervals were calculated for different subgroups allowing for lack of independence of observations within centers and using weighting to correct for unequal probabilities of selection in each center.

Findings
An estimated 5.6% (10.8) of those who had Pap tests on admission to the program had results consistent with HPV infection. The presence of HPV-consistent results was not significantly associated with any of the following: race/ethnicity, age, education, size of city of residence, region of the country, or family receiving public assistance (p>0.05).

Risk and Protective Factors for Predicting Suicide Involvement among Urban American Indian Youth

by Sandra Erickson, PhD

"Working as a data analyst for the School of Nursing for the past four years, I had heard much about the Society for Adolescent Medicine annual March conference. In fact, I helped run the statistical analyses for several of the studies that were presented as poster and oral presentations by the Center faculty and students every year. This year, I had the opportunity not only to run the analyses for several presentations, but also to go to Los Angeles and present my dissertation results in poster format."

Suicide risk among American Indian adolescents

In the past year, I’ve been exploring risk and protective factors related to a history of suicide attempts among urban American Indian youth. Suicide rates for all young people under the age of 14 in the United States have increased by 75% over the past decade. For those ages 15 to 24, suicide is the third leading cause of death. Suicidal involvement is even worse for American Indian adolescents. They have the highest suicide rate of all ethnic groups in the U.S., more than twice the national rate.

National Teen Pregnancy Prevention Research Center Funded 5 More Years

In October 1998, the National Teen Pregnancy Prevention Research Center (PRC), the only one of 23 Prevention Research Centers funded by the Centers for Disease Control and Prevention to focus exclusively on teen pregnancy prevention, was awarded five additional years of funding. Founded in 1996, the Center’s mission is to establish and nurture a dynamic center of research, evaluation, training and dissemination related to best practices around teen pregnancy prevention.

This spring the PRC will implement its core intervention in local school and community family planning clinics. Guided by the belief that young people are a resource to develop rather...
Welcome!

We are delighted to welcome our first doctoral students into the new Center for Adolescent Nursing Leadership.

Welcome to new doctoral student, Carie Braun, M.S., PNP, who began her doctoral coursework in Spring 1999. Ms. Braun graduated from the MCHB-funded master's program focused on children with special health care needs. In addition to providing primary care to teens through a community-based clinic, she has a teaching position in an undergraduate nursing program in St. Cloud, Minnesota. Ms. Braun, who plans to complete her doctoral coursework by Spring 2002, wants to pursue an academic appointment that integrates roles in teaching, research, and clinical practice. Her research interests focus on adolescents' use of alternative healing approaches for prevention and health promotion.

And, beginning Fall 1999, we welcome Charlene Guasasco, M.S., FNP into our doctoral program. With a long-time interest in teen pregnancy prevention, Ms. Guasasco will be taking advantage of the doctoral focus in adolescent nursing while collaborating also with the National Teen Pregnancy Prevention Research Center housed in the University of Minnesota's Division of General Pediatrics and Adolescent Health. She has completed much of her doctoral coursework through the University of California's San Francisco program. Her written preliminary exams will be the next focus at Minnesota, along with remaining doctoral coursework.

The Center Welcomes
Karen Larsen,
Grant Coordinator

Karen Larsen recently joined the School of Nursing as the coordinator for two MCHB-funded training grants, one of which is the Center for Adolescent Nursing Leadership. She previously worked in the Medical School and the School of Public Health at the University of Minnesota in the areas of grant resources and grant production. She has conducted workshops for staff, students and faculty on the mechanics of grant production, including the use of the Internet to seek funding opportunities. We welcome her expertise for support of students and faculty in the Center.

Center Faculty and Staff Activities

Linda H. Bearinger, PhD, MS, RN, served on the NINR Special Emphasis Panel to review nursing research center core grant applications. This two-day grant review panel was held in Bethesda, MD in April 1999. This year Bearinger also began a four year term on the Initial Review Group for NINR that reviews research training grants (T32, F31, K01, etc.).

In March 1999, Bearinger participated on a panel of national experts in school nursing in Baltimore, MD, convened by the National Center for School Nursing of the American Nurses Association/Foundation and the National Nursing Coalition for School Nurses. During two days of deliberation, the panel developed a national agenda for school nursing research to serve as a blueprint for the next decade. Bearinger was joined on the panel in representing the health interests of adolescents by Dr. Marilyn Aten, the Director of Research for the University of Rochester's MCHB-funded interdisciplinary adolescent health training program.


Renee Sieving, PhD, RNC, has received funding from the University of Minnesota Graduate School for a study exploring peer influence on adolescent sexual debut.


Linda Halcon, PhD, RN, has received funding from the University of Minnesota Graduate School for a study of health and risk behaviors among adolescents; she has also been funded by NIH/NCI for a study exploring high risk behaviors in homeless adolescents.

Elizabeth Saewyc, PhC, MN, RN, PHN, presented "Patterns of risk and health behavior change among high-risk clients of teen pregnancy clinics," as part of the University of Miami School of Nursing conference on nursing outcomes research, in Nassau, Bahamas, in January 1999. She also co-authored a monograph: Reis, Beth and Saewyc, Elizabeth. Eighty-three Thousand Youth: Selected findings of eight population-based studies as they pertain to anti-gay harassment and the safety and well-being of sexual minority students. Safe Schools Coalition of Washington, May, 1999.

CANL graduate student, Sarah Stoddard, BSN, RN, presented her master's research paper, "Relationship between body image and cultural connectedness among urban American Indian youth," as one of three selected to represent graduate research from the University of Minnesota School of Nursing, for the April 1999 meeting of the Midwest Nursing Research Society in Indianapolis, IN.

Plan Ahead:

New Application Deadlines for Masters and Doctoral Studies in Adolescent Nursing

With the change to semesters coming in the fall of 1999, application deadlines for the Master’s of Science (M.S.) with a major in nursing are now August 15 for entry in the spring, December 15 for entry in the summer, and February 15 for entry in the fall. For more information, contact the Graduate Studies in Adolescent Nursing office at (612) 624-3938 or e-mail adolnurs@tc.umn.edu.

The application deadline for the Doctoral Program in Nursing Science with a research focus in adolescent health is December 1 for entry the following Fall. Entry requirements, information about the program, and the application form can be accessed from the School of Nursing Web Page (www.nursing.umn.edu/PHD) or contact us at the telephone number above.
Suicide, continued from page 1

for all youth combined. It is the second leading cause of death for this population. Current data indicates that American Indian youth in urban settings are among those at greatest risk for suicide in the US, with overall rates as high as 1 in 4 who have attempted prior to age 18.

The effects of different protective and risk factors in predicting suicide attempts

The study was grounded in a resiliency paradigm which focuses on risk and protective factors present in the lives of individuals, and how these factors affect life outcomes. The purpose of this analysis was to develop probability profiles of risk and protective factors associated with suicidal involvement in a population of early and middle adolescents. Through probability profiling one can identify the relative impact of the presence of key risk and protective factors in determining the likelihood of the history of suicidal involvement.

The strongest predictors of a history of suicidal involvement in this population were three protective factors and two risk factors: positive affect, perceived self-image, connections to family, substance use, and violence perpetration. Using these protective and risk factors, probability profiles were generated which allowed us to examine various combinations of risk and protective factors and calculate their associated probability of a history of a suicide attempt.

Key findings

Two key findings stood out in these profiles. First, substance use drastically increased the risk for suicide attempt histories. In every profile where substance use was included, the probability of a history of a suicide attempt increased two to five fold. Second, protective factors were found to be powerful in dramatically reducing suicidal involvement. When all 3 protective factors were absent but there were 2 risk factors, the probability of a suicide attempt was 62.9%. However, when the 3 protective factors and neither of the risk factors were present, only 2% of the adolescents reported a suicide attempt. This understanding can provide an empirical basis for determining priorities for suicide prevention in clinical and programmatic settings.

Sandra Erickson is a data analyst with the Center for Adolescent Nursing; she recently completed her doctorate in Educational Psychology.

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Implications

In this population of socioeconomically disadvantaged adolescents, 1 in 18 females had Pap smear results severe enough to suggest the presence of HPV infection and indicating a need for follow-up or treatment. The rate of HPV-consistent abnormalities found in this study was similar to other studies using cytologic testing, but the true rate of HPV infection is likely to be much higher. The absence of significant demographic predictors suggests that HPV may be equally common in all subgroups of socioeconomically disadvantaged female youth similar to those enrolled in this national job training program. Thus, transmission patterns for this viral infection may differ from those for common bacterial STI’s.

Recommendations

At present, there is no effective cure for HPV infection. Since many infections are self-limited and benign, however, Pap smears may be the most appropriate and cost-effective means of identifying those young women with HPV who are in need of medical follow-up to prevent serious consequences of infection. Additional population-based studies of HPV prevalence and risk factors using more sensitive tests are needed in order to accurately describe patterns of infection in this or similar populations and suggest more effective primary prevention strategies. Given the high rate of Pap smear results indicating dysplasia or more severe abnormalities, it is essential that sexuality/STI programming for all young adolescents include information about HPV and its potentially serious consequences. Regular Pap smear screening of sexually active adolescent females is recommended as an important secondary prevention strategy for HPV.

The findings of this study were presented in poster format at the March 1999 meeting of the Society for Adolescent Medicine in Los Angeles. Dr. Halcon’s co-authors include Alan Lifson, M.D., Marcia Shew, M.D., Marilyn Joseph, M.D., Peter Hannan, MStat, Rose Hill, B.A., Charles Hayman, M.D., Michael St. Louis, M.D.

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This newsletter is funded by Project # MCJ-279185 from the Maternal and Child Health Bureau, (Title V, Social Security Act) Health Resources and Services Administration, Department of Health and Human Services.
than a problem to solve, the Center has designed an innovative model of pregnancy prevention using a combination of one-on-one case management and peer education to identify and intervene with adolescent females at high risk for pregnancy.

The Center is a collaborative effort among the Division of General Pediatrics and Adolescent Health and the Schools of Public Health and Nursing and the Carlson School of Management. The Center is headed by Michael Resnick (Pediatrics) in collaboration with Wendy Hellerstedt (Public Health), Linda Bearinger (Nursing), Robert Blum (Pediatrics), Sandra Potthoff (Carlson School), Marcia Shew (Pediatrics), and Renee Sieving (Nursing and Pediatrics).

DEADLINE FOR REGISTRATION IS JUNE 1. For more information or to receive registration materials, contact Christine Carlstrom in the Outreach Office at 612-625-7651, or email: carls020@tc.umn.edu.