Confusion About Pap Smears: Lack of Knowledge Among High-risk Women

The role of human papillomavirus (HPV) as the etiological cause of cervical cancer is well established. Recently, scientific advancements that provide primary and secondary prevention, such as the HPV vaccine and the HPV test, have contributed to the decrease in cervical cancer morbidity and mortality rates. However, the impact of the Papanicolaou (Pap) smear on early detection of cervical cancer is arguably one of the greatest public health success stories in the United States. Since the 1950s, cervical cancer mortality rates have declined by more than 70%, and, today, over 80% of women in the United States report having had a Pap smear within the last three years.

Despite this success, recent studies suggest that women hold inaccurate beliefs about the Pap smear, believing that it screens a number of sexually transmitted infections (STIs) and gynecological cancers. This is problematic, because an accurate understanding of the Pap smear is important to reduce not only the burden of cervical cancer but also diseases for which the Pap smear does not test. Moreover, this is particularly important in high risk populations where cervical cancer disparities exist. For example, racial and ethnic minority women account for a disproportionate number of cervical cancer deaths. Also, in the case of college-age women, it is important that they understand the purpose of the Pap smear, as they have one of the highest age-specific rates of STIs.

The purpose of this study was to examine Pap smear knowledge among three high-risk populations. Women from three separate HPV psychosocial studies completed surveys assessing Pap smear knowledge: (1) HPV+ women, (2) college women, and (3) minority college women. Frequencies and logistic regression were employed to examine associations between demographic factors and accurate knowledge of Pap smear testing within each study.

Approximately one-quarter of participants across all three studies did not know that the Pap smear is a test for cervical cancer. Participants also incorrectly believed that the Pap smear tests for HPV (82%-91%), vaginal infections (76%-92%), yeast infections (65%-86%), gonorrhea (55%-81%), herpes (53%-80%), HIV/AIDS (22%-59%), and pregnancy (17%-38%). Among all three studies, older age was the only factor significant with higher Pap knowledge. In the college studies, higher HPV knowledge scores were also significantly associated with higher Pap knowledge.

Findings from this study underscore the lack of knowledge and the critical need for clear and consistent health education messages regarding the purpose of Pap smear testing. These messages should address the need for Pap smear screening, even among women who have received the HPV vaccine, and should also dispel myths related to the Pap smear and other gynecological conditions (i.e. STI testing, pregnancy testing, vaginal infections, etc.). Additionally, health education messages may need to be tailored for different populations including those who are low-income, racial/ethnic minorities, infection with other STIs (i.e. HIV/AIDS), and those with lower levels of health literacy.

Reference: