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# The impact of a web-based educational intervention using positive message framing to promote the acceptability of the Human Papillomavirus (HPV) vaccine in a female university sample.

Sinéad Leonard, Dr Jane Walsh, Dr Susie Kola

## Human Papillomavirus

Human papillomavirus (HPV), a sexually transmitted infection and the etiologic cause of genital warts and cervical cancer, is highly pervasive in sexually active men and women (Soper, 2006). HPV strikes populations at low risk for other STIs; 11-46% of female university students are found to be infected with HPV (Koutsky, 1997). HPV infections usually occur in the early years of sexual activity (late teens and early twenties) (IARC, 1995; Koutsky, 1997). Research has shown a lack of HPV knowledge and misperceptions about susceptibility to contracting an STI among female university students, which influences their behaviours regarding cervical cancer prevention (Ingledue, Cottrell & Bernard, 2004). The Centers for Disease Control and Prevention's Advisory Committee on Immunization (ACIP) has rolled out recommendations for vaccinating females aged 9 to 26 years (Kaiser Family Foundation, 2006). The ACIP also recommends vaccination for sexually active females irrespective of a history of HPV infection or an abnormal Pap test as there appear to be no adverse effects from vaccinating females already infected and because females having contracted one strain of HPV are susceptible to other strains. Epidemiological data denotes that HPV is synergistic where infection with one type of HPV strain increases the likelihood of contracting another strain of the virus (Elbasha & Galvani, 2005). Determining the acceptability of the HPV vaccine is important because HPV is an STI that is not only detected in almost 100% of cervical cancers worldwide (Walboomers, Jacobs, Manos, et al, 1999) but strains of the virus have also been linked to 70% of anal cancers and 70% of precancerous lesions of the penis (Kaiser Family Foundation, 2006). Widespread acceptability of HPV vaccination is likely to have huge public health benefits (Garnett et al, in article by Giuseppe, 2008)

## Introduction

Message framing may be defined as presenting equivalent information in terms of either gains or losses (Gerend & Sheperd, 2007). As vaccination is a health preventative measure, a gain framed message should lead to greater acceptance of the HPV vaccination. Education about sexually transmitted diseases is an effective primary prevention tool for HPV infection and cervical cancer (Lambert, 2001). HPV-focused education may be more effective than education about other sexually transmitted infections (STIs) as individuals have more experience with the complications of HPV (i.e. abnormal cells on the cervix) than other STIs (Shepherd et al, 2000). Together message framing and education provide an exciting means to promote acceptance of the HPV vaccine.

## Objectives

The present study will evaluate the knowledge of HPV among a female university sample. These students will then be subject to one of three conditions of an online educational intervention; the first condition focuses solely on HPV vaccine as a preventative measure to cervical cancer, the second condition focuses on the HPV vaccine as a preventative measure for both STI and cervical cancer and the third condition is a control condition examining healthy eating. The subject's knowledge and intent to get the vaccine will be investigated once again at a one month follow-up. The study hypothesizes that the presentation of positive message framing in conjunction with education intervention will influence intent to vaccinate against HPV.



## Method

Participants will be assigned to one of three conditions:

- Cervical cancer focused intervention
- STI and cervical cancer focused intervention
- Healthy Eating (Control)

## Psychometrics

Questionnaire developed that incorporated scales from the following standardised questionnaires;

- Awareness of HPV and Cervical Cancer Questionnaire(Ingledue et al, 2004)
- HPV knowledge, beliefs, attitudes and vaccine intent (Jones & Cook, 2008)
- HPV Knowledge & Attitudes (Doherty & Low, 2008)

## Intervention

Adapted from case study by Linnehan and Groce (2000); a personal story of a young female diagnosed with HPV and the implications for diagnosis and treatment. The purpose of the story is to familiarize participants with the risk of HPV in a university population.

## Implications

Implications of the expected findings of this present study will influence how health messages are framed for the intention of increasing vaccine administration. Such findings would imply that the wording used in promotion of the vaccine may play a significant role in how the vaccine is perceived (Jones & Cook, 2008). It would add to the accumulating literature regarding whether to emphasize the benefits of the vaccine in terms of both cancer and STI prevention or just cancer prevention.

For additional information about this study, or if you wish to comment, please contact Sinéad Leonard, Department of Psychology, National University Ireland, Galway. Email: s.leonard1@nuigalway.ie