HPV vaccine acceptance in males: a psychosocial perspective

**INTRODUCTION**

Human Papillomavirus (HPV) is one of the most common sexually transmitted infections worldwide, nearly all men and women will be exposed to it at some point in their lives. HPV infection is well-recognised as a causative agent in cervical cancer, but it is also associated with other anogenital tumours, oropharyngeal cancers, and genital warts, meaning that it also has serious health consequences in males and females. Despite this, there is substantial debate around the inclusion of males in HPV vaccination programmes. Only the United States (US), Australia, Austria, Israel, and two Canadian provinces currently recommend a gender neutral vaccination programme. Many European countries do not include men, and focus on achieving a high coverage in females to promote herd protection. A female only vaccination strategy does however leave a number of men vulnerable to HPV infection, particularly men who have sex with other men (MSM), and men who have sex with unvaccinated females. A proposed solution could be to offer the vaccine to MSM at a sexual health clinic; however, for the HPV vaccine to be most effective it should be given in adolescence, before exposure to HPV through sexual contact.

The UK is currently considering the merit of extending the HPV vaccination programme to adolescent boys. There is a need for a concerted effort to promote the vaccination for boys in established vaccine programmes and to maximise uptake in other countries before a decision to extend the vaccine is made.

**Aim**

The aim of this scoping review was to synthesise the evidence on vaccine acceptability to males. Given that the vaccine is most effective in adolescent males, vaccine acceptance in parents and health care professionals (HCPs) was also examined.

**Research Recommendations**

Development of a valid and reliable measure of vaccine acceptance. More prospective longitudinal studies to determine if vaccine acceptance leads to actual vaccine uptake and to identify the factors that influenced the change. Studies guided by a theoretical framework around decision making, for example, the Precaution Adoption Process Model (PAPM). This model applied in a longitudinal survey would allow for the crucial identification of factors that caused the change in health behaviour.

**Policy and Practice Recommendations**

Insufficient knowledge of HPV in adolescent boys reflective of information campaigns focused on cervical cancer. Need better health education and public information to maximise awareness that HPV has health implications in males and females and therefore should be the concern of both sexes. Knowledge and acceptance are not always correlated, i.e. an adolescent may consider vaccination without adequate knowledge, HCPs responsible for vaccination should extend education beyond vaccination to transmission and other prevention measures.

In the absence of a school based vaccination programme, it can be challenging to achieve high rates and to ensure all doses are received in a timely manner. The US, for example, may never achieve high female or male vaccination rates. It is even more imperative therefore to accurately understand vaccine acceptance to order to improve uptake.

**Summary of Findings**

There is a positive attitude towards male HPV vaccination from both parents and adult males. Adolescent boys knowledge and awareness of HPV is low. Understanding risks involved in acquisition, and receiving a recommendation from a HCP appear to be major factors involved in males deciding to be vaccinated. Parents consistently report the importance of a HCP recommendation, yet HCPs (in the US) appear to have a preference for vaccinating older than younger adolescents, and for vaccinating females. Majority of research is cross-sectional and not guided by a theoretical framework. Currently no definition of vaccine acceptance and no universally accepted tool for its measurement. This makes comparison of studies problematic, making it difficult to draw conclusions and to develop methods to enhance vaccine acceptance.