Parental Perceived Barriers and Facilitators to HPV Vaccination: A Literature Review

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Background

- HPV is associated with 90% of cervical and anal cancers, and 70% of vaginal, vulvar, penile, and oral cancers (Centers for Disease Control and Prevention [CDC], 2015; Reiter et al., 2013).
- 38,800 new cases of HPV-associated cancers emerge each year in the U.S (Markowitz et al., 2014).
- Individuals ages 15 to 24 comprise 50% of these cases.
- The HPV vaccine, Gardasil 9, is recommended for both adolescent girls and boys to protect against 9 commonly transmitted strands of the virus (Petrosky et al., 2015). However vaccination rates are low (Reagan-Steiner et al., 2016).
- HPV vaccine initiation rates: Girls—60%; Boys—42%
- HPV vaccine completion rates: Girls—39.7%; Boys—21.6%
- The purpose of this literature review was to examine parental barriers and facilitators that contribute to low HPV vaccination rates among adolescents in the U.S.

Methods

- An electronic literature search was conducted from September 12, 2016 to October 10, 2016 using PubMed, CINAHL, ProQuest Central, and PsychInfo databases using PRISMA Guidelines.
- Keywords: “HPV vaccination”, “adolescents”, “facilitators” and “barriers”.
- Mesh terms, medical, and subject headings were included in the keyword search using PubMed, CINAHL, and PsychInfo.
- Eligibility criteria:
  - Inclusion: English-language, peer-reviewed articles published within (2006-2016) examining barriers and facilitators to HPV vaccination among adolescents (ages 9 to 17) who received ≥ 1 dose of the vaccine series or unvaccinated.
  - Exclusion: Studies outside U.S., intervention studies
  - Eligible qualitative, quantitative, and mixed-methods studies were included for synthesis.
- The Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies (NHLBI, 2014) and Critical Appraisal Skills Programme (CASp) Qualitative Research Checklist (CASp, 2017) were used to assess the strengths and weaknesses in the body of research.
- Both tools were used to assessed mixed-methods studies.

Results

- N = 38 articles were retained for synthesis (see Figure 1).
- Overall, the majority of studies demonstrated a strong quality rating; however, limitations were noted across the studies (see Table 1 and 2).
- The vast majority of studies explored factors influencing HPV among parents; few studies included children (n = 3).
- Various barriers and facilitators to HPV vaccination were identified (see Figure 2). Concerns regarding vaccine safety and parental beliefs related to their child’s early age and lack of sexual activity were consistently identified as barriers.
- Provider recommendations to parents regarding the HPV, positive attitudes toward the vaccine, knowledge about HPV, and accurate assessment of their adolescent’s risk served as a facilitator.

![Figure 1. Modified PRISMA Flow Diagram of Systematic Review Search](Image)

![Figure 2. Summary of Major Themes](Image)

Conclusion

- Several barriers and facilitators to HPV vaccination have consistently been identified in the literature. Strategies need to be developed and tested to address these among parents.
- Overall, many of the studies were limited by design and instrumentation choice.
- Children were not included in the decision-making process for HPV vaccination in the majority of studies.
- Future research should consider utilizing longitudinal designs to assess how parents’ perceptions influence vaccine uptake over time, and develop reliable instrument tools.
- Children are the recipients of the HPV vaccine. Therefore, future studies should consider exploring if vaccine rates differ if children are participants in their health decisions.

References Cited


References of studies included in review synthesis available on handout.