

STUDY PROTOCOL

Parental Impact of Cultural Values on the Uptake of Human Papillomavirus (HPV) Vaccination by Their Daughters: A Protocol of Qualitative Meta-synthesis

Noor Shuhada Salleh¹, Khatijah Lim Abdullah^{2,3}

¹ Nursing Programme, School of Health Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia.

² Department of Nursing, School of Medical and Life Sciences, Sunway University, 47500 Petaling Jaya, Selangor, Malaysia.

³ Department of Nursing, Faculty of Medicine, Universiti Kebangsaan Malaysia, 56000, Cheras, Kuala Lumpur, Malaysia

ABSTRACT

Introduction: The aim of this systematic review is to explore how parents' perspectives on the human papillomavirus (HPV) vaccination are influenced by their cultural values, specifically with regard to their daughters. Adolescent girls are generally the primary targets for HPV vaccination and, in the majority of countries, parents/legal guardians have overall authority on this issue. However, it appears that cultural values could prove a powerful indicator in the parental choices that affect the uptake of HPV vaccination, which therefore needs to be carefully considered. Thus, exploring parents' views is critical in improving HPV vaccination coverage. **Methods:** A systematic literature search will be conducted using CINAHL, PsycINFO, EMBASE, PubMed and Science Direct to identify eligible studies published in the English language. Two reviewers will select the studies independently and the quality of the studies will be evaluated using the Critical Appraisal Skills Program (CASP) checklists. Thematic synthesis methods will be used to report themes specific to cultural values. **Discussion:** It is predicted that the results of the proposed review will be beneficial to identify and understand the culturally-related facilitators and barriers to the HPV vaccination of young women, as they are central to the HPV vaccination programme. Once concerns raised by parents are understood more fully, relevant interventions can be developed to address these concerns. This information is also crucial to the development of strategies to optimise HPV vaccine coverage among this population group by policy makers. Malaysian Journal of Medicine and Health Sciences (2024) 20(2): 379-384. doi:10.47836/mjmhs.20.2.48

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Corresponding Author:

Noor Shuhada Salleh, PhD

Email: nshuhada@usm.my; noorshuhadasalleh@yahoo.com

Tel: +609-767 7833

INTRODUCTION

Vaccinations are effective in treating illness and preventing death from various vaccine-preventable diseases. For instance, the human papillomavirus (HPV) vaccination can prevent some cancer-causing infections and precancers. 9 out of 10 cases of HPV infections will resolve themselves within two years, but sometimes HPV infections will last longer, and subsequently cause cancer such as cancers of the cervix, vagina and vulva (women), penis (men), anus and back of throat (both women and men) (1). Cervical cancer is reported to be the second most common female cancer, occurring in less developed regions (low- and middle-income countries, LMICs) with an estimated 570,000 new cases in 2018, and 84% of new cases worldwide (2,

3). Globally, cervical cancer is the fourth most frequent female cancer, with about 570,000 new cases in 2018 (2, 3) causing 7.5% of all female cancer deaths. About 311,000 women die due to cervical cancer every year, with more than 85% of these deaths occurring in LMICs (3).

The HPV vaccine is a significant advancement in reducing women's risk of cervical cancer (4). However, to increase efficacy, all doses of the vaccine must be administered prior to the beginning of sexual activity or exposure to HPV as vaccination is not therapeutic if given after the initialisation of sexual intercourse (5-7). Therefore, WHO recommends two doses of the HPV vaccination to be administered to girls aged nine to 14 years, when most have not started having sex (3).

According to the laws and regulations in place in most countries, individuals at the age of 18 years and above are allowed to give consent for vaccination but some countries have fixed the age of consent specifically to allow HPV vaccination at age 12 (8). However, in

most countries, parents/legal guardians have overall authority on this issue (8). Therefore, understanding parental acceptance of the HPV vaccination is essential as governments consider how such vaccine promotion programmes should be implemented.

Recently, the attention of investigators has been attracted to examining the cultural factors that influence the uptake of the HPV vaccine, particularly among under-served minority communities (9, 10). Previous studies showed racial, ethnic and socioeconomic disparities when examining the factors influencing vaccine acceptance among the multi-racial groups (11-13). In addition, differences in trust, experience and parenting strategies were expressed by parents when it came to HPV vaccine acceptability (14, 15). Recognising these cultural differences moves us towards addressing them and, therefore, a more in-depth understanding will develop. This is an essential first step in the development of approaches that can identify and deal with cultural differences in practice.

Significantly, only a few studies have assessed the influence of culture on vaccine acceptance and uptake (16). Therefore, further research is crucial to fully understand parents' perspectives on whether to allow their daughters to be given the HPV vaccination, and how these perspectives are influenced by cultural values. Understanding a parent's perspective can offer direction to identify drivers of and barriers to vaccination uptake, which may highlight specific ways to enhance interventions designed to encourage vaccinations. Therefore, a systematic review has been chosen to search and synthesise all the relevant evidence identified, and then to analyse the findings in order to generate a comprehensive understanding.

The aim of this systematic review is to explore how parents' perspectives on the HPV vaccination are influenced by their cultural values, specifically with regard to their daughters. The following objectives are developed to gather available evidence and findings. This include to identify the influences of cultural values on parents which support them in allowing the uptake of the HPV vaccination for their daughters, to identify the influences of cultural values on parents which prohibit them from allowing the uptake of the HPV vaccination for their daughters and lastly to examine the impact of cultural values on parents' decision to accept or reject the HPV vaccination for their daughters.

METHODS

Design

For reporting and synthesising findings, the guidance outlined by the statement of Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) (17) (see Supplementary file) will be followed throughout the review.

Inclusion and Exclusion Criteria

Inclusion and exclusion criteria of studies are important as it will identify the included studies that will answer the review question and exclude irrelevant studies (18). The identification of population, exposures, outcomes and types of studies which are eligible to be included in the review will be used to frame the health-related research question (19). For studies to be eligible for inclusion, they must report on:

Population

Fathers, mothers or both will be included, as they are the main focus of this study. Any other family member (for example, guardians or caregivers of a daughter, or single adults with no daughters and family) will be excluded.

This review will focus solely on very young women as the vaccination of this population against HPV infection has been identified as a critical public health goal by the WHO (3). Furthermore, to ensure vaccine efficacy, vaccination must be administered prior to the initiation of sexual activity (5-7). Hence, girls under the age of legal consent are generally the primary targets (20). For the purposes of this study, children are defined as individuals under the age of 18 years old (21), therefore daughters under 18 years of age will be included and anyone over 18 years of age will be excluded from this review. Where studies report on the parental decision-making for daughters outside of this age range (young women eligible for HPV vaccination [19–26 years old]), or very young daughters not eligible for HPV (babies, infants), they will also be excluded. In addition, male children or sons will also be excluded from the review.

Exposure

The exposure for inclusion in the review are any findings in the literature relating to HPV vaccination offered to female children, either free of charge or payable, depending on the country's policy. Other childhood vaccinations or injections or treatments prescribed to children, or any adult vaccination, will also be excluded.

Outcomes

The outcome of interest in this review is to explore and understand the influence of cultural values on a parent's decision to allow his/her daughter to be given the HPV vaccination. Cultural values commonly influence intention, experiences, thoughts, views, beliefs, perceptions, feelings, opinions, barriers and facilitators, which relate to psychological, emotional, social, spiritual, religious or ethnic factors demonstrated by parents towards HPV vaccination for their daughters. Any studies with no reference to cultural values that have influenced intention, experiences, thoughts, views, beliefs, perceptions, feelings, opinions, barriers and facilitators related to the subject area will be excluded.

Types of studies

Qualitative studies will be the focus of the inclusion to

best answer the review questions pertaining to parents' perspectives of the influence of cultural values on the uptake of the HPV vaccination by their daughters. All primary qualitative research studies, including descriptive/exploratory, ethnographic, grounded theory, phenomenological cohort, case studies, narrative and action research exploring parental perspective will be included. Purely quantitative studies will be excluded. Mixed methods studies, consisting of both qualitative and quantitative data, will be examined for their qualitative data only. Non-primary studies (literature reviews, editorials, guidelines, policies, reports, commentaries, letters and minute from meetings) will be excluded but will be referred to for a wider view and an input to the area discussed.

Search Methods

A comprehensive search of electronic databases including CINAHL (Cumulative Index to Nursing and Allied Health) (providing full text dating back to 2008, the earliest date the topic was introduced in the database), PsycINFO (inception date, 2009), EMBASE (Excerpta Medica Database) (inception date, 1974), PubMed (inception date, 2007) and Science Direct will be explored to identify eligible studies published in English. Each database is relevant to the topic, therefore providing a wide range of evidence to be examined. There will be no restriction placed on publication year as older literature may provide fundamental background related to this topic.

Hand searches of additional articles will also be considered, through identification in reference lists of the included studies based on the following inclusion/exclusion criteria. However, restricting to electronic databases searches can unintentionally introduce publication bias as this approach is unlikely to identify unpublished studies in peer-reviewed journals. Searches of grey literature via Open Grey/Greynet databases, relevant conference papers or proceedings, theses and doctoral dissertations, clinical practice, national guidelines or policies and government reports will be carried out as these sources can reduce the impact of publication bias. The searches and results will be recorded electronically.

Search Terms

A preliminary manual hand search of the literature will be undertaken to select appropriate keywords and Medical Subject Headings (MeSH) terms. The search strategy will be implemented for the different MeSH terms (depending on the database), different keywords and their combinations following Boolean operators OR/AND, truncation "*", wildcard "?" and filtering processes to produce the highly related studies (see Supplementary file). The terms used in this review will be "parent", "father", "mother", "daughter", "child", "cultural", "qualitative", "focus group", "HPV", "human papillomavirus vaccine" and "wart virus".

Study Selection

To ensure rigour and transparency during the screening phase, all the remaining articles will be screened independently by two reviewers, based on their titles and abstracts, for whether they are relevant to the review question which will be guided by the pre-determined inclusion and exclusion criteria. Any irrelevant articles will be excluded. When the abstract is not descriptive enough or no abstract is available, the full text will be reviewed and assessed by both reviewers.

The eligibility phase will involve a review of full text papers to ascertain whether the study meets the inclusion criteria. Again, the inclusion criteria will be applied, and irrelevant articles will be excluded if they are not eligible for selection. Relevant articles will be considered for inclusion in the review. Where any discrepancies or disagreement occur, they will be resolved by discussion and consensus among the reviewers or, failing that, judgment by an additional, independent reviewer. The reasons for a study's exclusion from the review will be documented.

Quality Assessment

Each primary study will be appraised using previously validated checklists for qualitative studies, the Critical Appraisal Skills Program (CASP) (22). The appraisal checklist consists of ten items which allow for rapid and accurate evaluation (23). The CASP tool was chosen because it has been used in previous relevant systematic reviews (24 - 26) and is validated for review purposes. Ten criteria in this tool relate to three broad issues that need to be kept in mind when appraising qualitative studies. These three issues are rigour, credibility and relevance of the included studies (22). The first two criteria are the screening questions, and if the study is relevant, the appraisal will continue with more detailed questions in relation to the third until the tenth criteria of the tool.

Studies will receive up to ten points, the highest score, with higher scores, reflecting better quality (Table I). Revision includes the addition of a scoring system to grade the quality of each study into low, medium or high quality. Studies with scores of eight to ten will be graded as high quality, between four and seven will indicate medium quality, and between one and three will be graded as low quality. Currently, there is no universal agreement regarding the quality rating of qualitative studies and subsequent exclusion from the reviews (27). For this review, studies will not be automatically excluded based on overall 'low quality' if they contribute relevant qualitative information. However, studies will be excluded if the methodology and results are presented in such a way that the findings are insufficient and unreliable to answer the review question despite their achieved quality rating (28).

Assessment of each study will be conducted

Table 1: Quality Criteria of Critical Appraisal Skills Program (CASP)

Num.	Questions
1	Was there a clear statement of the aims of the research?
2	Is a qualitative methodology appropriate?
3	Was the research design appropriate to address the aims of the research?
4	Was the recruitment strategy appropriate to the aims of the research?
5	Was the data collected in a way that addressed the research issue?
6	Has the relationship between researcher and participants been adequately considered?
7	Have ethical issues been taken into consideration?
8	Was the data analysis sufficiently rigorous?
9	Is there a clear statement of findings?
10	How valuable is the research?

Source taken from (22)

independently to eliminate subjective bias and then the details of the study's quality will be recorded. Meetings will be held to compare the independent assessments of the studies. If/when there is a discrepancy, a discussion between the reviewers will take place until a consensus on the final awarded scores is reached. If appropriate, a third-party expert in the area will be consulted.

Data Extraction

A data extraction framework will be adapted from Bettany-Saltikov's (19) work, in which the reviewers revise the included studies and highlight relevant information: author(s), year, aim(s), participants, settings, methodology and key findings. Piloting the pre-defined data extraction form will be implemented on five samples of included studies so that all relevant findings are gathered and recorded. All included papers will be read independently, and the first reviewer will extract and summarise relevant data using a cross-checking process with a second reviewer. The outcome data which comprise of all the texts under the headings of 'results' or 'findings' will be extracted and transferred to a data extraction form.

Data analysis/synthesis

Thomas and Harden's (29) thematic synthesis will be used owing to its potential to provide in-depth description of a phenomenon. The stages will commence with line-by-line coding and organisation of coding into descriptive themes. These findings will be rated according to their quality and categorised based on their similarity of meaning. Finally, the construction of these themes into analytical themes will be introduced and subjected to a meta-synthesis to generate a comprehensive set of synthesised findings which can provide a basis for evidence-based practice. Both reviewers will be involved independently during this stage to increase the reliability of the themes identified. Any discrepancies will be discussed between the two reviewers and changes of the themes will be made as necessary in consideration of

the original findings. Subsequent studies will be coded into pre-existing concepts, and new concepts will be created when necessary.

It is anticipated that the main themes of the proposed review will capture the available evidence on cultural values that support or prohibit parents in their decision to permit giving the HPV vaccination to their daughters, as well as the impact of this decision on the young girls themselves.

DISCUSSION

It is predicted that the results will be of interest to public and social healthcare professionals, particularly those who engage in vaccination promotion programmes. This systematic review will be valuable in identifying and understanding the culturally-related facilitators and barriers to the HPV vaccination among eligible young women, as they are central to any HPV vaccination programme. Once concerns raised by parents are understood more fully, relevant interventions can be developed to address these concerns. This information is crucial to the development of strategies to optimise HPV vaccine coverage among this population group by the policy makers. It is hoped that the findings of this review will broaden the existing body of knowledge in the field by adding the clinically relevant information of considering cultural values when seeking to appreciate the decisions of parents regarding the HPV vaccination of their daughters, particularly parents from various cultural and ethnic minority backgrounds.

CONCLUSION

This systematic review protocol sought to justify the rationale of undertaking a review of understanding parents' perspectives on whether to allow their daughters to be given the HPV vaccination, and how these perspectives are influenced by cultural values, by presenting background to this subject area including relevant research evidence relating to this topic. The review questions were highlighted and the proposed methodology for conducting the review was explained. Understanding the parents' perspective on HPV vaccination is needed to develop strategies that target parents specifically from multi-cultural backgrounds and to implement a multifaceted approach to take into account different cultural values and differences of ethnicity.

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