Stigma and Cervical Cancer Prevention: A Scoping Review of the U.S. Literature

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Highlights

- Aspects of stigma are related to cervical cancer prevention interventions in the US
- Research must assess how stigma affects HPV vaccination and cervical cancer screening
- Several underserved populations with high rates of cervical cancer are understudied

Key Words

Cervical Cancer Prevention; HPV Vaccination; Stigma; Social Influence; Barriers to Cervical Cancer Prevention; cervical cancer screening

Abstract

Cervical cancer is preventable through HPV vaccination and screening however, uptake falls below national targets. A scoping review was conducted to describe stigmas related to HPV infection and vaccination and cervical cancer and screening in the US. Results were organized into the domains proposed by Stangl and colleagues' Health Stigma and Discrimination Framework. Common *drivers of stigma* were fear of social judgement and rejection, self-blame, and shame. *Positive facilitators* included social norms that provided motivation to receive HPV vaccination and screening. Gender and social norms were notable *negative facilitators* of stigma. HPV infection and cervical cancer resulted in *stigma marking* through the belief that both result from incautious behavior—either multiple sexual partners or failing to get screening. Stereotyping and prejudice were *stigma practices* attributed to HPV infection and cervical cancer through these same behaviors. *Stigma experiences* related to HPV infection, cervical cancer, and abnormal screening results included altered self-image based on perceived/anticipated stigma, as well as discrimination. This review advances understanding of the multiple dimensions of stigma associated with these outcomes in the US population. Three areas warrant additional consideration. Future studies should 1) assess how stigma dimensions affect uptake of cervical cancer preventions efforts; 2) focus on US women most affected by cervical cancer incidence and mortality to identify potential differences in these dimensions and tailor interventions accordingly; 3) include women from geographic areas of the US with high rates of cervical cancer to adapt interventions that address potential regional variations in resources and need.

1. Introduction

Despite the availability of effective primary (HPV vaccine) and secondary (cervical cancer screening) prevention tools, cervical cancer is the second-leading cause of cancer deaths among US women aged 20-39 years and disproportionately affects racial and ethnic minorities and low-income women (DeSantis et al. 2016). Although uptake of the HPV vaccine is steadily rising in these groups (Walker et al. 2019), up from an estimated 15.8% in 2008 among women living below poverty to 33.0% in 2012 (Schmidt and Parsons 2014), it remains well below the Healthy People 2020 target of 80% ("Immunization and Infectious Diseases | Healthy People 2020" n.d.). In terms of cervical cancer screening, the proportion of women who are up to date with their screening has fallen between 2013 and 2018. For example, the average annual percent change was -0.04, -0.41, -0.47, and -0.41 for Hispanic, non-Hispanic Black, non-Hispanic White, and women living below the federal poverty level, respectively (https://progressreport.cancer.gov/detection/cervical_cancer).

Access to and availability of health care is critical to utilization of health services (Wilper et al. 2008; Okoro et al. 2017). Despite the existence of programs that eliminate the cost of vaccination (i.e., the US federal government's Vaccines for Children Program) and mandated coverage for cervical cancer screening (i.e., the Affordable Care Act), vaccination and screening are underutilized in medically underserved populations (VanderVeen et al. 2020; Hawkins et al. 2013), which suggests the existence of additional barriers to these health behaviors (Poirier and Cobb 2012).

We hypothesize that stigma may play a role in parents' hesitancy to seek HPV vaccination for their children and for women to participate in cervical cancer screening for themselves. Cervical cancer is stigmatized, due to its association with HPV as a sexually transmitted infection, as well as the belief that this preventable cancer reflects failure on the part of women to take responsibility for their health (Vrinten, Waller, and Marlow 2016). However, there are significant gaps in the literature regarding the forms of stigma associated with vaccination and screening, and the effect of stigma on the acceptability of these prevention interventions.

The goal of this scoping review was to determine what is known about stigmas related to HPV infection and vaccination as well as cervical cancer and screening in the US population using the Health Stigma and Discrimination Framework (HSDF) developed by Stangl et al. (Stangl et al. 2019). The HSDF presents stigmatization as a process comprised of a series of three domains that influence a range of outcomes including access and acceptability of healthcare services and uptake of health interventions. The first domain includes characteristics that drive or facilitate health-related stigma. Drivers are intrinsically negative (e.g., fear leading to avoidance of screening), whereas facilitators may have either a negative or positive influence on stigma. For example, cultural norms that discourage family planning may stigmatize women who seek birth control, and these norms would be considered negative facilitators of stigma. On the other hand, a policy that supports and encourages family planning would be considered a positive facilitator insofar as it reduces stigmatization of women seeking birth control. Drivers and facilitators determine whether stigma is applied to a person or a population due to a particular condition (e.g., cancer) or a perceived difference (e.g., sexual orientation); Stangl and colleagues refer to this second domain as stigma "marking." The third HSDF domain includes stigma manifestations as experiences, including perceived or anticipated stigma resulting from those experiences, or as practices, which include beliefs and attitudes (Figure 1). Understanding how stigma contributes to the acceptability and adoption of cervical cancer prevention is of paramount importance in order to implement more effective messaging and prevention interventions.

Domain	Domain Characteristic	
Domain 1 **Drivers & Facilitators**	**Drivers**: Fear of infection, fear of social ramifications, lack of awareness, social judgement, blame, stereotypes, prejudice	**Facilitators**: Cultural norms, social & gender norms, health policy that may minimize or exacerbate stigma
Domain 2 **Stigma Marking**	**Stigma Marking:** Health-condition-related stigma, race, gender, sexual orientation	
Domain 3 **Stigma Manifestations**	**Stigma Experiences:** Experienced stigma and discrimination, perceived or anticipated stigma	**Stigma Practices:** stereotypes about a group or its members, prejudice (i.e., negative evaluation of a group or its members, stigmatizing behavior or discriminatory attitudes (i.e., exclusion)

Figure 1. Adaptation of HSDF applied to primary and secondary cervical cancer prevention

2. Methods

2.1 Approach

A scoping review methodology was used to examine the extent, range, and nature of the current research evidence related to stigma and its association with HPV infection or vaccination as well as cervical cancer and screening; summarize research findings; and identify gaps in the existing scientific literature. The methodological framework proposed by Arksey and O'Malley was used to carry out this scoping review (Arksey and O'Malley 2005). This framework includes: (1) identification of the research questions to be addressed; (2) identification of studies relevant to the research questions; (3) selection of studies included in the review; (4) charting of information and data within the included studies; and (5) collating, summarizing, and reporting results of the scoping review. The output of the review is presented using the Preferred Reporting Items for Systematic Review and Meta-Analyses Extension for Scoping Reviews (PRISMAScR) checklist (Tricco et al. 2018).

2.2 Identifying the Research Questions

Based in this approach, the following key questions were derived:

1) What are the key characteristics of existing studies?
2) Which drivers & facilitators, stigma marking, and stigma manifestations have been identified with regard to their association with HPV infection or HPV vaccination?
3) Which drivers & facilitators, stigma marking, and stigma manifestations have been identified with regard to their association with cervical cancer or cervical cancer screening?

2.3 Identifying Relevant Studies

A comprehensive search strategy was led by a research librarian (AG) in consultation with the research team. Two separate, extensive searches were conducted relating to the outcomes associated with HPV (search one) and cervical cancer (search two). Searches of the literature were carried out using the PubMed, CINAHL, and PsycINFO databases, examining references and citations from selected manuscripts in SCOPUS, and manual searching. The search strategies for PubMed/PsycINFO/CINAHL combined relevant keywords and controlled vocabulary related to cervical cancer or HPV and terms related to shame or stigma, limiting to research conducted within the US as

determined through relevant subject headings or country names in the title or abstract. Full search strategies for each of the databases can be found in the Appendix.

Manuscripts were selected for review if they were published in a peer-reviewed journal and met the following inclusion criteria:

1) Study population included a US population comprised of parents/decision makers of vaccine-eligible children & adolescents or screening-eligible women
2) Expressly explored stigma
3) English language
4) Focused on HPV infection, HPV vaccination, cervical cancer, or cervical cancer screening
5) Published in 2006 or later (for HPV vaccination as it coincides with the introduction of the vaccine in the US); or published in 2012 or later (for cervical cancer screening as it coincided with changes in cervical cancer screening guidelines introduced by the American Cancer Society, American Society for Colposcopy and Cervical Pathology, and American Society for Clinical Pathology

Manuscripts were excluded if they were literature reviews, commentaries, or descriptions of ongoing trials. Two authors (CP/EH) reviewed titles and abstracts for relevance. Studies that included both men and women were excluded if the results were not stratified by gender. Studies that included only men were excluded, as were studies with ill-defined definitions of stigma and study populations outside of the US. If an abstract did not contain sufficient information to assess eligibility, the manuscript was reviewed. In an attempt to capture as much information as possible in the research field, the references and citations in selected manuscripts were obtained from SCOPUS and manually reviewed in order to identify further relevant documents.

2.4 Charting the Data

The two lead authors (CP/AS) developed the data extraction tool to ensure consistency with the research questions and alignment with the purpose of the scoping review. The information abstracted from each article included information on record source (PubMed, CINAHL, PsycINFO, Scopus), authors, publication year, title, study aims/purpose, study population demographics (e.g., age, race/ethnicity), patient population focus (e.g., cervical cancer screening eligible, vaccine eligible), sample size, data collection methodology (e.g., survey, mixed-methods), study design, sample type (e.g., convenience, clinic-based), and outcome that was considered (e.g. HPV infection, HPV vaccination, cervical cancer screening). In addition, for each article we extracted information on the five HSDF domain characteristics: drivers and facilitators of stigma, stigma marking, and stigma experiences and practices (i.e., manifestations). One co-author (EH) extracted the information on each article's year, title, authors, and study purpose. The information on the study population demographics, patient population focus, sample size, data collection methodology, study design, and outcome was then extracted independently by four co-authors (DK/EN EH/NO) working in pairs. Each paired team compared results and reconciled areas of discrepancy. The lead authors (CP/AS) made a final determination in cases where reconciliation could not be made by the paired teams. In addition, each lead author independently extracted information on the stigma domains. Upon completion of the independent reviews, the lead authors compared results for consistency and concurrence.

2.5 Collating, Summarizing, and Reporting the Results

For this stage of the review, the framework suggested by Levac et al.(Levac, Colquhoun, and O'Brien 2010) was followed. First, the general characteristics of the articles were reported. Second, the results related to each of the research questions posed earlier were summarized. Third, the results were discussed and implications for further research, practice, and policy were articulated.

2.6 Data Analysis

The characteristics of the studies were described and quantified in terms of study population demographics, sample size, target patient population, data collection, methodology, study design, sample type, study outcomes (i.e., HPV infection, HPV vaccine, cervical cancer, or cervical cancer screening), and stigma domain characteristics examined (i.e., drivers and facilitators, stigma marking, or stigma experiences/practices). Drivers of stigma were categorized as fear of social judgement, fear of infection, fear of blame, and fear of prejudice. Facilitators of stigma occur at the societal level and included cultural norms, social norms, or policy. Stigma marking was categorized as relating to the health condition or gender. Stigma experiences were described as having experienced stigma and discrimination or having perceived or anticipated stigma due to past experiences. Stigma practices were identified as either projecting stereotypes or showing prejudice.

3. Results

3.1 Search Results

Figure 2 represents the data extraction flow process. All searches were conducted in July 2020. The PubMed search produced 326 abstracts. The CINAHL search yielded an additional 23 unique abstracts plus 34 duplicates in PubMed. The PsycINFO search identified an additional 21 unique abstracts plus 38 duplicates in PubMed. Two authors (CP/EH) systematically screened all the titles and abstracts for relevance. Of the total number of abstracts reviewed, 72 met the inclusion and exclusion criteria during a title and abstract review. After an independent assessment of the full text by the two lead authors (CP/AS), 14 papers were selected for inclusion into the study.

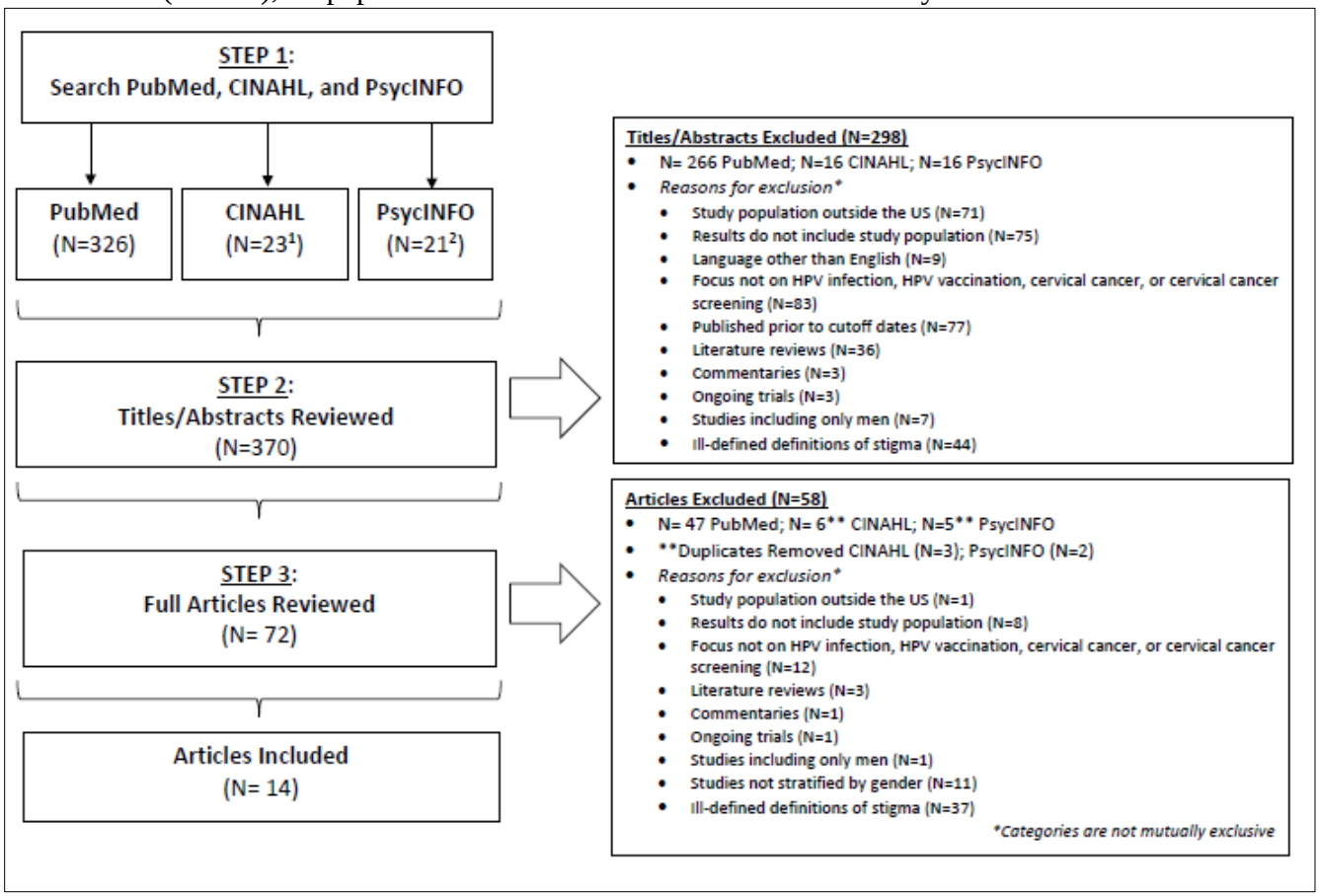

Fig 2. Flow diagram of the search and study selection process

3.2 Study Characteristics

Eight of the included studies focused solely on HPV infection (Barnack-Tavlaris et al. 2016; Bertram and Magnussen 2008; Daley et al. 2015; 2010; Sandfort and Pleasant 2009; Hopfer and Clippard 2011; Hopfer et al. 2017; Perrin et al. 2006), three focused only on cervical cancer (Milner and McNally 2020; Shepherd and Gerend 2014; Dyer 2010), and three focused on both HPV and cervical cancer (Kahn et al. 2007; 2005; Sundstrom et al. 2019).

The study populations were somewhat diverse. Four of the included studies comprised study populations that were predominantly non-Hispanic (nH) White women (Hopfer and Clippard 2011; Perrin et al. 2006; Milner and McNally 2020; Shepherd and Gerend 2014), two included predominantly nH Black women (Kahn et al. 2005; 2007), four included an ethnically diverse sample of women (Bertram and Magnussen 2008; Daley et al. 2015; 2010; Dyer 2010), one included predominantly nH Black and White women (Sundstrom et al. 2019), one included Latina and Vietnamese women (Hopfer et al. 2017), another included nH White and Asian populations (Sandfort and Pleasant 2009), and one did not describe the study population demographics (Barnack-Tavlaris et al. 2016). The included studies were geographically concentrated in the southeastern US (Daley et al. 2010), including four in Florida (Daley et al. 2015; Perrin et al. 2006; Shepherd and Gerend 2014; Dyer 2010), and one in South Carolina (Sundstrom et al. 2019). Four studies did not specify a particular geographic location (Milner and McNally 2020; Kahn et al. 2007; 2005; Barnack-Tavlaris et al. 2016), two took place in the northeastern US (Sandfort and Pleasant 2009; Hopfer and Clippard 2011), one took place in California (Hopfer et al. 2017), and one in Hawaii (Bertram and Magnussen 2008) (Data not shown).

The most common (eight studies) target patient population was screening-eligible women (Bertram and Magnussen 2008; Daley et al. 2015; 2010; Milner and McNally 2020; Shepherd and Gerend 2014; Dyer 2010; Kahn et al. 2007; 2005), including one study whose target population included both screening- and vaccine-eligible women (Sundstrom et al. 2019). The remaining five studies included vaccine-eligible women as the target patient population (Barnack-Tavlaris et al. 2016; Sandfort and Pleasant 2009; Hopfer et al. 2017; Hopfer and Clippard 2011; Perrin et al. 2006).

Data from the included studies were primarily qualitative and collected through convenience samples. Of the 14 studies, eight collected data primarily through qualitative interviews (Bertram and Magnussen 2008; Hopfer et al. 2017; Hopfer and Clippard 2011; Perrin et al. 2006; Dyer 2010; Kahn et al. 2005; 2007; Sundstrom et al. 2019) while four gathered data through quantitative surveys (Daley et al. 2015; Sandfort and Pleasant 2009; Milner and McNally 2020; Shepherd and Gerend 2014), one used a mixed-methods design (Daley et al. 2010), and one study collected data through blog posts (Barnack-Tavlaris et al. 2016). Half of the studies used convenience sampling (Barnack-Tavlaris et al. 2016; Sandfort and Pleasant 2009; Hopfer et al. 2017; Hopfer and Clippard 2011; Milner and McNally 2020; Shepherd and Gerend 2014; Dyer 2010) while the other half used purposive sampling (Bertram and Magnussen 2008; Daley et al. 2015; 2010; Perrin et al. 2006; Kahn et al. 2007; 2005; Sundstrom et al. 2019).

The included studies generally focused on one outcome, and HPV infection was most commonly explored. Five studies considered HPV infection (Barnack-Tavlaris et al. 2016; Bertram and Magnussen 2008; Daley et al. 2010; 2015; Sandfort and Pleasant 2009); three HPV vaccination (Hopfer et al. 2017; Hopfer and Clippard 2011; Perrin et al. 2006); two cervical cancer diagnosis (Shepherd and Gerend 2014; Dyer 2010); and one cervical cancer screening (Milner and McNally 2020). Two considered both HPV infection and cervical cancer screening (Kahn et al. 2007; Sundstrom et al. 2019), and one examined HPV infection, cervical cancer diagnosis, and cervical cancer screening (Kahn et al. 2005).

More than half (n=9) of the studies were able to identify or report at least three domain characteristics (Barnack-Tavlaris et al. 2016; Sandfort and Pleasant 2009; Hopfer and Clippard 2011;

Perrin et al. 2006; Dyer 2010; Kahn et al. 2007; 2005; Sundstrom et al. 2019; Daley et al. 2010), with one study reporting on all five domain characteristics (Dyer 2010).

The most commonly reported domain characteristic was stigma marking, while the least common was related to stigma experience. With the exception of one study (Hopfer et al. 2017), all other studies identified stigma marking (Barnack-Tavlaris et al. 2016; Bertram and Magnussen 2008; Daley et al. 2010; 2015; Sandfort and Pleasant 2009; Hopfer and Clippard 2011; Perrin et al. 2006; Milner and McNally 2020; Shepherd and Gerend 2014; Dyer 2010; Kahn et al. 2005; 2007; Sundstrom et al. 2019).

Relatively few studies (n=5) focused on facilitators of stigma (Sandfort and Pleasant 2009; Hopfer et al. 2017; Hopfer and Clippard 2011; Dyer 2010; Sundstrom et al. 2019), which may potentially positively influence health-seeking behaviors such as vaccination or screening. On the other hand, half (n=7) reported drivers of stigma (Barnack-Tavlaris et al. 2016; Daley et al. 2015; 2010; Perrin et al. 2006; Dyer 2010; Kahn et al. 2007; 2005), which may lead individuals to avoid receipt of vaccination or screening.

In terms of stigma manifestations, eight studies cited stigma practices (Barnack-Tavlaris et al. 2016; Sandfort and Pleasant 2009; Hopfer and Clippard 2011; Perrin et al. 2006; Shepherd and Gerend 2014; Kahn et al. 2007; 2005; Dyer 2010), and four reported stigma experience (Bertram and Magnussen 2008; Dyer 2010; Sundstrom et al. 2019; Daley et al. 2010).

Table 1. Study Characteristics

Study	Sample Size	Study Population	Target Patient Population/s	Data Collection	Methodology *Sample Type*	Outcome/s	Domain Characteristic/s Examined
HPV							
Barnack-Tavlaris et al. 2016	127	Individuals with HPV infection who posted on a community web site	Vaccine-eligible women*	Blog posts	Qualitative *Convenience*	HPV infection	Drivers of stigma Stigma marking Stigma practices
Bertam and Magnussen 2008	10	Low-income, ethnically diverse women with history of abnormal Pap test, 18-35	Screening-eligible women	Interviews	Qualitative *Clinic-based Purposive*	HPV infection	Stigma marking Stigma experiences
Daley et al. 2010	52 interviews 154 surveys	Sexually active, diverse (rural/urban, income, education, race/ethnicity) women with history of abnormal Pap test/HPV+ test, 18+	Screening-eligible women	Survey Interviews	Mixed-methods *Clinic-based Purposive*	HPV infection	Drivers of stigma Stigma marking Stigma experiences
Daley et al. 2015	154	Sexually active, diverse (rural/urban, income, education, race/ethnicity) women with history of abnormal Pap test/HPV+ test, 18+	Screening-eligible women	Survey	Quantitative *Clinic-based Purposive*	HPV infection	Drivers of stigma Stigma marking
Sandfort and Pleasant 2009	694	Predominantly (>=75%) non-Hispanic White and Asian, female college students, 17-45	Vaccine-eligible women	Survey	Quantitative *Convenience*	HPV infection	Facilitators of stigma Stigma marking Stigma practices
Hopfer et al. 2017	48	Latina and Vietnamese women, 18-26	Vaccine-eligible women†	Interviews	Qualitative *Convenience*	HPV vaccination	Facilitators of stigma
Hopfer and Clippard 2011	38	Predominantly (>=75%) non-Hispanic White, female college students, 18-26	Vaccine-eligible women†	Interviews	Qualitative *Convenience*	HPV vaccination	Facilitators of stigma Stigma marking Stigma practices

Perrin et al. 2006	52	Sexually active, predominantly (>=75%) non-Hispanic White women with HPV+ test, 18+	Vaccine-eligible women†	Interviews	Qualitative *Clinic-based Purposive*	HPV vaccination	Drivers of stigma Stigma marking Stigma practices
Cervical Cancer (CCA)							
Milner and McNally 2020	1115	Self-identified lesbian, bisexual, nonheterosexual, predominantly (<=75%) non-Hispanic White women 18+	Screening-eligible women	Survey	Quantitative *Convenience*	CCA screening	Stigma marking
Shepherd and Gerend 2014	~218	Predominantly (>=75%) non-Hispanic White, female college students, 18-38	Screening-eligible women	Survey	Quantitative *Convenience*	CCA	Stigma marking Stigma practices
Dyer 2010	19	Ethnically diverse women with a history of cervical cancer, 24-65	Screening-eligible women	Interviews	Qualitative *Convenience*	CCA	Drivers of stigma Facilitators of stigma Stigma marking Stigma experiences Stigma practices
HPV and CCA							
Kahn et al. 2005	100	Sexually active, predominantly non-Hispanic Black women, 14-21	Screening-eligible women‡	Interviews	Qualitative *Clinic-based Purposive*	HPV infection CCA CCA screening	Drivers of stigma Stigma marking Stigma practices
Kahn et al. 2007	100	Sexually active, predominantly non-Hispanic Black women, 14-21	Screening-eligible women‡	Interviews	Qualitative *Clinic-based Purposive*	HPV infection CCA screening	Drivers of stigma Stigma marking Stigma practices
Sundstrom et al. 2019	70	Predominantly (>=75%) non-Hispanic Black & White women with history of CCA screening and/or eligible for HPV vaccine or caring for a vaccine-eligible dependent, 19-78	Screening-eligible women Vaccine-eligible women	Interviews	Qualitative *Community-based Purposive*	HPV infection CCA screening	Facilitators of stigma Stigma marking Stigma experiences

*Individuals self-identified as HPV-positive, and based on responses, assumption is that participants were women
†Includes women eligible for late vaccination
‡Includes both PAP & HPV screening

4. HPV Infection and Vaccination

4.1 Summary of Factors Examined

Table 2 summarizes the findings of studies that focused on HPV infection and HPV vaccination stigma across the five domain characteristics. Stigma drivers, marking, experiences, and practices were related to behaviors associated with HPV infection, whereas most facilitators related to vaccination. None of the included studies reported stigma drivers of, or practices connected to, HPV vaccination.

4.2 Drivers of Stigma

Drivers of stigma correlated to disclosure included fear of social judgement (Barnack-Tavlaris et al. 2016; Daley et al. 2015; 2010; Perrin et al. 2006) and fear of rejection (Barnack-Tavlaris et al. 2016; Daley et al. 2015; Perrin et al. 2006; Kahn et al. 2005). Additional drivers included fear that HPV infection would lead to cancer (Perrin et al. 2006), self-blame, failure to protect oneself (Daley et al. 2015; 2010; Perrin et al. 2006; Kahn et al. 2007), and expressions of shame (Daley et al. 2015; 2010) due to infection.

"The stigma of having this 'thing' is mind blowing…somehow it makes me think I was dirty" (Barnack-Tavlaris et al. 2016)

"What about when I tell a guy I want to be with that I have HPV? Will he run away as if I'm some dirty girl that sleeps around, which I'm anything but?" (Barnack-Tavlaris et al. 2016)

"So for me this is something like oh God, this could lead to cervical cancer. I will never be able to have children. That's really my main concern. Because although I'm not ready now, eventually I will be and I don't want to have complications" (Perrin et al. 2006)

"We had been talking about being together and having a future and he's always been like 'I want to have this many kids'… I let him know what I had and he got really upset and cried. He was like Okay, what does this mean? And then after I explained it to him he was all right. As time had gone on he had talked to my parents and he has researched it so he's better now. It's hard." (Daley et al. 2010)

4.3 Facilitators that Minimize or Exacerbate Stigma

Societal acceptance of those with HPV infection (Sandfort and Pleasant 2009); acceptance of the vaccine as a way to protect against cervical cancer (Hopfer et al. 2017), and concerns about the health effects of HPV infection (Sundstrom et al. 2019) were all noted positive facilitators.

"People who have HPV should not be ashamed" (Sandfort and Pleasant 2009)

"Oh, all girls get it…so it's normal. You should get it too (Hopfer et al. 2017)[speaking about the HPV vaccine]

4.4 Stigma Marking

Stigma marking was applied to HPV infection (Barnack-Tavlaris et al. 2016; Bertram and Magnussen 2008; Daley et al. 2015; 2010; Perrin et al. 2006; Kahn et al. 2005) and drove fears of judgement (Hopfer and Clippard 2011; Sandfort and Pleasant 2009) and rejection (Kahn et al. 2007) of those with HPV.

"So I just feel like there's stigma associated with this that if you have anything that's sexually transmitted, you're automatically thought of as being promiscuous, and you know, dirty, one-night-stand, and so I don't associate that stigma with it, because I know about some of the stuff, but a lot of people do. And so I don't feel comfortable telling people that don't know me and my history. I don't feel comfortable telling them, cause I don't want people to think of me that way." (Perrin et al. 2006)

"…the information that I got was that this is a permanent illness that never leaves your body and I will always have it. So I thought I'll never have a boyfriend again, because I'll have to tell him that I have an STD" (Bertram and Magnussen 2008)

4.5 Stigma Experiences

Past lived experiences of stigma associated with HPV infection led to altered personal relationships (Daley et al. 2010), self-image (Bertram and Magnussen 2008), and a sense of alienation (Daley et al. 2010), as well as feelings of health care provider discrimination following positive HPV test (Sundstrom et al. 2019).

"Many years ago when my aunt had cervical cancer people were very supportive but they had no idea that it had anything to do with HPV. But now it's different. I feel like I won't get that support because no one is going to feel sorry for someone who got a sexually transmitted disease and then later developed cervical cancer because of it…it's like it's your fault…it's horribly embarrassing." (Bertram and Magnussen 2008)

"[my doctor said], 'well depending on what kind of partners'…just the way I contracted it, and [I] felt like there was judgment [of] the kind of lifestyle I was living." (Sundstrom et al. 2019)

4.6 Stigma Practices

Stigma practices included stereotyping and prejudice. Specifically, negative self-image (Barnack-Tavlaris et al. 2016) and judgement about those with HPV (Sandfort and Pleasant 2009; Kahn et al. 2007; 2005; Perrin et al. 2006), as well as a conviction that they are to blame (Sandfort and Pleasant 2009) for their infection. Promiscuity was the stereotyping behavior associated with the infection (Hopfer and Clippard 2011; Perrin et al. 2006).

"I really feel disgusted of myself. I really hate myself and I can't stop crying. I feel so dirty and lost." (Barnack-Tavlaris et al. 2016)

"It's like for example when HIV first came out. People didn't know what HIV was, so everybody thought it was completely contagious. There was a lot of prejudice against people who had it. That's how I feel. Like I have been labeled" (Perrin, Daley 2006)

"The stereotype that only sluts get HPV" (Hopfer and Clippard 2011)

Table 2. Factors Related to HPV infection and HPV Vaccine Stigma using the Health Stigma and Discrimination Framework (Stangl et al. 2019)

Domain Characteristic	Stigma Factors
Domain 1	
Drivers of Stigma	**Fear of social judgement:** concerns with public attitude (Barnack-Tavlaris et al. 2016; Daley et al. 2010; Daley et al. 2015; Perrin et al. 2006) **Fear of rejection:** (Barnack-Tavlaris et al. 2016; Daley et al. 2015; Perrin et al. 2006; Kahn et al. 2005; Kahn et al. 2007)
	Fear of infection: catastrophizing; fear of cancer resulting from HPV (Perrin et al. 2006)
	Self-blame: failure to protect oneself and consequences of bad choices (Daley et al. 2010; Daley et al. 2015; Perrin et al. 2006; Kahn et al. 2007)
	Shame: Feeling ashamed of having HPV (Daley et al. 2010; Daley et al. 2015)
Facilitators of Stigma	**Social Norms:** No shame associated with HPV (Sandfort and Pleasant 2009); normalizing vaccination (Hopfer et al. 2017)
	Health Concerns: concerns about cancer and HPV infection motivate vaccination (Sundstrom et al. 2019)
Domain 2	
Stigma Marking	**Health Condition:** HPV infection leads to disclosure concerns (Barnack-Tavlaris et al. 2016; Bertam and Magnussen 2008; Daley et al. 2010; Daley et al. 2015; Perrin et al. 2006; Kahn et al. 2005); judgement about HPV-positive individuals (Sandfort and Pleasant 2009; Hopfer and Clippard 2011); rejection (Kahn et al. 2007)
Domain 3	
Stigma Experiences	**Perceived or anticipated stigma:** altered self-image (Bertam and Magnussen 2008); change in relationships; (Daley et al. 2010); anticipating social rejection following HPV+ test (Kahn et al. 2007)
	Discrimination: provider judgement/discrimination following HPV+ test (Sundstrom et al. 2019)
Stigma Practices	**Stereotypes:** negative self-image (Barnack-Tavlaris et al. 2016); judgement about others with HPV infection (Sandfort and Pleasant 2009; Hopfer and Clippard 2011; Kahn et al. 2005; Kahn et al. 2007; Perrin et al. 2006)
	Prejudice: judgement about people's behavior leading to HPV infection (Perrin et al. 2006)

5. Cervical Cancer and Screening

5.1 Summary of Factors Examined

Table 3 summarizes the findings of studies that focused on cervical cancer and cervical cancer screening. Although some stigma drivers, facilitators, and practices related directly to these outcomes, many were indirectly related through their association with HPV infection. Stigmatization of cervical cancer itself emanated from the view that it is a preventable form of cancer, and that a diagnosis is an indication of a woman's failure to protect herself or take care of herself through screening.

5.2 Drivers of Stigma

Stigma drivers related to cervical cancer or cervical cancer screening included fear of social judgement (Dyer 2010), rejection (Kahn et al. 2005), self-blame and shame (Dyer 2010; Kahn et al. 2007), blame of partners (Kahn et al. 2007), fear of prejudice (Kahn et al. 2007; 2005). Sexual minority status was negatively associated with adherence to screening, most notably fear of negative evaluation and concealment of sexual orientation (Milner and McNally 2020).

"I know that I say uterine cancer instead of cervical cancer, because uterine cancer could have started from the inside versus the outside, and that's my way of dealing with it. Because I do feel, in myself, embarrassed about that. I don't know if anybody else sees it that way because no one's ever said anything negative to me about that. But in myself you know I do shy away from saying cervical cancer—I feel like it's the preventable cancer, and the only thing I've ever heard about cervical cancer is the HPV commercials"(Dyer 2010)

"It is my fault that I had cervical cancer, because I have never had a Pap smear" (Dyer 2010)

5.3 Facilitators that Exacerbate Stigma

The perception of irresponsible behavior as defined by gender and social norms (Dyer 2010) were identified as negative facilitators insofar as they exacerbate stigma.

"We do assume that if you get HPV you're a slut. Any kind of sexually transmitted disease, you're a whore. Unless you're a guy, and then it's some girl's fault" (Dyer 2010)

5.4 Stigma Marking

Stigma marking was applied to cervical cancer, which was considered to be preventable (Shepherd and Gerend 2014; Dyer 2010; Kahn et al. 2007) and contagious (Kahn et al. 2007). Abnormal screening results were considered "nasty" and stigmatized, but indirectly, in relation to HPV (Kahn et al. 2005).

"When people say they have lung cancer, the next question is 'did you smoke?' That type of mentality, like you have cervical cancer—'Oh, did you…" Whereas if it were liver, it would be a different reaction" (Dyer 2010)

"like trifling, trampy, and like ho-ish, like you been sleeping around and being unprotected" (Kahn et al. 2007)

5.5 Stigma Experiences

Stigma experiences manifested as feelings of judgement and discrimination by health care providers following an abnormal pap test (Sundstrom et al. 2019), as well as judgement and fear of contagion expressed by others (Dyer 2010; Kahn et al. 2007).

"The other women [at my job], when they found out about the cervical cancer, actually terrorized me, publicly humiliated me about that[…]. This one woman who used to be my friend decided that she was not going to be my friend and called me 'warty pants' and all kinds of things. And said I had a venereal disease…So cervical cancer has a stigma attached to it. People are blaming you for getting it…" (Dyer 2010)

"I had some dysplasia. I had to go through cryosurgery, and I did do all that. And it was, he was actually, um, pretty standoffish, um, so there was no relationship. So, there was no communication with him. He had to do a biopsy, which was not very comfortable and then the cryosurgery was not a very comfortable process. So, the next time that I went to an OB/GYN was when I was pregnant" (Sundstrom et al. 2019)

5.6 Stigma Practices

The negative stereotype of women with cervical cancer was due to its association with HPV (Shepherd and Gerend 2014), as well as projection of personal responsibility (Dyer 2010) and the negative behaviors associated with developing cervical cancer (Kahn et al. 2007).

"[It's] not likely [that I would get warts]! Ooh. Those pictures! That is so nasty. That ain't gonna be me. For real. Those come from dirty people. Every diseases be comin' from dirty people. Uh uh. We need to take all them dirty people and stop them given' they diseases. No. I just ain't with dirty people, so how else I'm gonna get them." (Kahn et al. 2007)

Table 3. Factors Related to Cervical Cancer and Cervical Cancer Screening Stigma using the Health Stigma and Discrimination Framework (Stangl et al. 2019)

Domain Characteristic	**Stigma Factors**
Domain 1	
Drivers of Stigma	**Fear of social judgement:** negative connotations around cervical cancer as a death sentence (Dyer 2010) and a preventable form of cancer (Dyer 2010); **Fear of rejection:** implications of disclosing positive Pap test to partner (Kahn et al. 2005)
	Self-blame: cervical cancer is preventable (Dyer 2010); personal accountability (Kahn, Slap 2007) **Shame**: embarrassment for having CCA (Dyer 2010) or abnormal Pap result (Kahn, Slap 2007) **Blame:** partners accountable for positive HPV/Pap test results (Kahn, Slap 2007)
	Fear of prejudice: shame and anticipated/internalized stigma due to positive Pap test (Kahn et al. 2005; Kahn et al. 2007)
	Sexual minority status: negative correlations between concealment, rejection sensitivity, and fear of negative evaluation and Pap test guidelines adherence (Milner and McNally 2020)
Facilitators of Stigma	**Gender norms:** judgement of right/wrong behavior motivates prevention (Dyer 2010)
	Social norms: perception of responsible behavior to prevent cervical cancer (Dyer 2010)
Domain 2	
Stigma Marking	**Health condition:** CCA as preventable and associated with HPV (Shepherd and Gerend 2014; Dyer 2010; Kahn et al. 2007); labeling—abnormal Pap test indicative of STI (Kahn et al. 2007); cervical cancer as contagious (Kahn et al. 2007); abnormal screening result leads to disclosure concerns Kahn et al. 2005)
Domain 3	
Stigma Experiences	**Discrimination:** provider judgement/discrimination following abnormal screening test/treatment (Sundstrom et al. 2019) **Anticipated stigma:** abnormal Pap test viewed as stigmatizing (Kahn et al. 2005)
	Perceived: Judgement/fear of contagion (Dyer 2010; Kahn et al. 2007)
Stigma Practices	**Stereotypes**: judgement about others with cervical cancer (Kahn et al. 2007)
	Prejudice: judgement about behavior leading to cancer (Shepherd and Gerend 2014; Dyer 2010; Kahn et al. 2007)

6. Discussion

Based on the findings of 14 studies, this scoping review summarizes what is known about stigmas related to HPV infection and vaccination as well as cervical cancer and screening (i.e., outcomes) in the US population. The factors explored in the included studies were organized into themes corresponding to the domain characteristics of the HSDF developed by Stangl and colleagues (Stangl et

al. 2019): *stigma drivers and facilitators* (domain 1); *stigma marking* (domain 2), and *stigma experiences and practices* (domain 3), with each domain reflecting unique dimensions of stigma related to health behaviors. The most common *drivers of stigma* explored in these studies were fear of social judgement and rejection, self-blame and shame. Although several studies focused on cervical cancer and/or screening, identified drivers of stigma were often indirectly related to those outcomes through the behavior associated with an HPV infection. *Stigma facilitators* can drive either positive or negative health behaviors. *Positive facilitators* identified in these studies concerned social norms that normalized vaccination, as well as long-term health concerns that provided motivation to receive or accept the HPV vaccine. Gender and social norms were prominent *negative facilitators* of stigma. Both HPV infection and cervical cancer were conditions resulting in *stigma marking*, principally through the notion that both are preventable and result from incautious behavior—either through multiple sexual partners or failing to get screening. Similarly, stereotyping and prejudice were *stigma practices* attributed to HPV infection and cervical cancer through these same behaviors. *Stigma experiences* related to HPV infection, cervical cancer, and abnormal screening results included altered self-image based on perceived/anticipated stigma, as well as discrimination.

The included studies describe stigma associated with cervical cancer, its primary cause, HPV infection, and, to a lesser extent, HPV vaccination and screening. Utilization of the HBSF framework advances our understanding of the multiple dimensions of stigma associated with these outcomes in the US population. However, there are several notable gaps in the current literature. First, the pathways through which various forms of stigma result in low uptake of cervical cancer prevention have not been fully elucidated. Second, although the study populations were fairly diverse in terms of race and ethnicity, the studies that included low-income and minority women had relatively small samples such that these women were under-represented. Moreover, communities that experience health-related stigma, including native peoples, (Baugher et al. 2019; Taitingfong et al. 2020), minority immigrants (Horwitz, Roberts, and Warner 2008; Chang 2019; Rastogi et al. 2014), and sexual minorities (Meyer 2003; Smith and Reidy 2021) are either unrepresented or under-represented in the cervical cancer literature. Third, with nearly half the studies taking place in the southeastern US, other geographic areas with high rates of cervical cancer incidence are understudied. Fourth, although the relationship between stigma and treatment for pre-cancerous lesions and invasive cervical cancer has been studied in low-and middle-income countries, (Ragan et al. 2018; Bateman et al. 2019) (Bate, Liberman), to our knowledge the role of stigma as a barrier to treatment has not been examined in US women.
Finally, nine of the 14 included studies were purely qualitative, and only one used a mixed-methods design.

The pathways through which stigma influences uptake of cervical cancer prevention vary by the particular dimension—serving to hinder or aid uptake of interventions. Stigma drivers and practices have the potential to negatively impact cervical cancer prevention and control efforts due to women's fear of being stigmatized or being identified as a member of a stigmatized group (Vrinten, Waller, and Marlow 2016; Knapp, Marziliano, and Moyer 2014). Cultural norms that serve as negative facilitators become barriers to health-seeking behaviors such as screening (Thomas, Saleem, and Abraham 2005) and vaccination (Morales-Campos et al. 2021). On the other hand, positive facilitators that associate HPV vaccination and cervical cancer screening with self-efficacy and empowerment (Luszczynska et al. 2012) have the potential to increase uptake of these prevention efforts. Drivers and negative facilitators lead to stigma marking of both HPV infection and cervical cancer, and these stigmatized conditions may cause women to avoid health-seeking behaviors (Knapp, Marziliano, and Moyer 2014; Vrinten, Waller, and Marlow 2016). In addition, the embarrassment and shame associated with HPV infection and precancerous lesions (Flynn et al. 2017) may reduce uptake of subsequent screening and increase

hesitancy to receive follow-up care (Miller et al. 1996). Stigma manifestations have different effects on cervical cancer prevention—although both are more likely to occur with screening rather than vaccination. Experiences of past stigma are correlated with low uptake of screening (Marlow, Waller, and Wardle 2015). Stigma practices, such as stereotyping, prejudice, and exclusion perpetuate stigma around cervical cancer and HPV infections, and may lead to avoidance of prevention interventions. Future mixed-methods studies should expand beyond the exploration of stigma dimensions and assess how these multiple dimensions effect uptake of cervical cancer prevention efforts.

Cervical cancer is more prevalent in HIV-positive women, and HIV infection nearly doubles the risk of death from cervical cancer (Dryden-Peterson et al. 2016). As a result, cervical cancer stigma has been shown to be correlated with HIV stigma (Rosser, Njoroge, and Huchko 2016). This stigma, therefore, is a major driver of cervical cancer mortality. While our review was limited to research conducted in the US, many cervical cancer screening programs in low- and middle-income countries have developed directly out of existing HIV programs. This has potentially contributed to the high levels of cervical cancer stigma in these settings. Furthermore, studies in rural Kenya (Rosser, Njoroge, and Huchko 2016), India (Gordon et al. 2019), and the Haitian community in Miami (Kenya et al. 2015) showed that due to this stigmatization existing barriers to cervical cancer screening are likely compounded for women living with HIV (White et al. 2012; Kobetz et al. 2009; Saint-Jean et al. 2011). It will be critical to better understand and address these challenges given that cervical cancer screening programs are a critical complement to HPV vaccine programs in achieving global progress toward the elimination of HPV related cancers (Garland et al. 2018; "World Health Assembly Adopts Global Strategy to Accelerate Cervical Cancer Elimination" n.d.).

Although cervical cancer is the twelfth leading cancer in US women ("USCS Data Visualizations" n.d.), significant racial, ethnic, and socioeconomic variation with incidence and mortality is well-documented (Siegel, Miller, and Jemal 2020), with Hispanic, Black, American Indian/Alaska Native, and low-income women suffering a disproportionate burden of these measures ("Cancer of the Cervix Uteri - Cancer Stat Facts" n.d.). The relative importance and effect of stigma drivers, facilitators, and manifestations may vary across racial/ethnic/economic strata (O'Connor et al. 2018). Future studies should focus on US women most affected by cervical cancer incidence and mortality in order to identify potential differences in these dimensions and tailor interventions accordingly.

US regions with the highest cervical cancer incidence include rural Appalachia, South Atlantic, lower Mississippi Valley, the Texas–Mexico border, and the Oklahoma and Texas Panhandles (Horner et al. 2011), and incidence rates among US urban minority women are startlingly high. For example, 20% of Chicago's 77 community areas have cervical cancer incidence rates exceeding 15 per 100,000 ("Chicago Health Atlas" n.d.), nearly twice the national rate of 8 per 100,000 women ("USCS Data Visualizations" n.d.). Future mixed-methods studies must include women from geographic areas of the US with high rates of cervical cancer in order to adapt interventions that address potential regional variations in resources and need.

Qualitative data provide a deeper understanding of participants' perspectives and experiences than quantitative data alone. However, these studies involve relatively small sample sizes thereby limiting the scope and generalizability of the findings. Mixed-methods studies, in which both quantitative (closed-ended) and qualitative (open-ended) data are collected and analyzed, ensure that study findings are grounded in participants' experiences and augments more robust quantitative data (Wisdom and Creswell 2013), resulting in a more complete understanding of the topic.

7. Limitations

As this was a scoping review, the quality of the included studies was not assessed. In addition, our scoping review was limited to English language studies, as well as studies that expressly explored stigma. As such, studies relevant to non-English-populations were not included, nor were those that explored negative social influences as barriers to cervical cancer prevention. Finally, transgender and non-binary individuals were not explicitly included in our search, which is an important gap in the literature. Given the observed disparities in cervical cancer screening uptake between cisgender women and gender minorities assigned female at birth (Connolly, Hughes, and Berner 2020), inclusion of this group in future studies is critical.

8. Conclusion

Effective prevention of cervical cancer requires robust uptake of the HPV vaccine and cervical cancer screening services. To optimize the uptake of these services, we must facilitate positive social influences and minimizing drivers of stigma, thereby creating environments of self-efficacy and empowerment. The use of the HBSF framework to identify drivers, facilitators, markers, experiences, and practices of stigma facilitate their categorization. This scoping review has identified that stigma is principally associated with a diagnosis of cervical cancer and HPV infection. The identification of drivers and negative facilitators that lead to stigma marking of both HPV infection and cervical cancer may, therefore, prevent women from avoiding health-seeking behaviors. However, a sound explanatory model for illustrating the link between stigma and low uptake of cervical cancer prevention services is needed. In addition, we need a better understanding through mixed methods approaches of stigmas across social determinants, especially among low-income and minority women (in particular, Hispanic, Black, American Indian/Alaska Native) and across geographic regions (Appalachia, South Atlantic, lower Mississippi Valley, the Texas–Mexico border, and the Oklahoma and Texas Panhandles) whose populations are most affected by cervical cancer incidence and mortality. Consideration of how multiple stigmatizing forces (Bastos, Harnois, and Paradies 2018) impede uptake of cervical cancer prevention and control measures is essential to the development and adaptation of multilevel evidence-based interventions to reduce the incidence, morbidity, and mortality of cervical cancer in underserved women.

Appendix.

HPV and Stigma	PubMed	(((((((Cervical OR Cervix) AND (cancer) AND (screening)))) OR (Uterine Cervical Neoplasms OR Cervical Cancer OR Cervix Cancer OR Cervix Neoplasms OR Cervical Neoplasms OR "Cancer of Cervix" OR "Cancer of the Cervix" OR "cervical cancer screening") NOT Neck) AND (((Social Stigma OR (Stigma) OR (Shame OR "Social Support"[Mesh] OR stigmatized OR Stereotyping OR Blame))))) NOT ((((((("Asia"[Mesh]) OR "Africa"[Mesh]) OR "Europe"[Mesh]) OR ("Australasia"[Mesh] OR "Oceania"[Mesh])) OR "Canada"[Mesh]) OR "Mexico"[Mesh]) OR "South America"[Mesh]) OR "Central America"[Mesh])) NOT ((((((China[Title/Abstract] OR India[Title/Abstract] OR Vietnam[Title/Abstract] OR Bolivia[Title/Abstract] OR Africa[Title/Abstract] OR Canada[Title/Abstract] OR Nicaragua[Title/Abstract] OR Costa Rica[Title/Abstract] OR Bangladesh[Title/Abstract] OR Kenya[Title/Abstract] OR Greece[Title/Abstract] OR Bhutan[Title/Abstract])))) OR (peruvian[Title/Abstract] OR canadian[Title/Abstract] OR nigeria[Title/Abstract] OR alberta[Title/Abstract] OR malawian[Title/Abstract] OR mexico[Title/Abstract] OR Guatemala[Title/Abstract] OR france[Title/Abstract]))))) NOT ((Senegal[Title/Abstract] OR Zimbabwe[Title/Abstract] OR Cambodia[Title/Abstract] OR Singapore[Title/Abstract] OR Dominican Republic[Title/Abstract] OR Italy[Title/Abstract] OR "middle-income countries"))
HPV and Stigma	PsycINFO	((((((((((Nine-Valent OR (nine valent) OR Quadrivalent OR Gardasil OR "HPV Vaccination") OR (Human papillomavirus 11))) OR (MAINSUBJECT.EXACT("Human Papillomavirus"))) OR (Human Papilloma Virus Vaccine)))) OR (Papillomavirus Vaccines)) OR (Papillomavirus Infections)) OR ((HPV OR "Human Papillomavirus" OR "Human Papilloma Virus"))) AND (((Social Stigma OR (Stigma) OR (Shame OR (MAINSUBJECT.EXACT("Self-Stigma") OR MAINSUBJECT.EXACT.EXPLODE("Stigma") OR MAINSUBJECT.EXACT("Shame") stigmatized OR Stereotyping OR Blame))))) AND lo.Exact("US")
HPV and Stigma	CINAHL	((((((((((Nine-Valent OR (nine valent) OR Quadrivalent OR Gardasil OR "HPV Vaccination") OR (Human papillomavirus 11)) OR ((MH "Papillomavirus Infections"))) OR ((MH "Papillomavirus Vaccine"))) OR (Human Papilloma Virus Vaccine))) OR (Papillomavirus Vaccines)) OR (Papillomavirus Infections)) OR ((HPV OR "Human Papillomavirus" OR "Human Papilloma Virus" OR (MH "Papillomaviruses"))))) AND (((Social Stigma OR (Stigma) OR (Shame OR (MH "Stigma") OR (MH "Shame") OR stigmatized OR Stereotyping OR Blame)))) AND (MH "United States+")
Cervical Cancer and Stigma	PubMed	((((((((((((Nine-Valent OR (nine valent) OR Quadrivalent OR Gardasil OR "HPV Vaccination") OR (Human papillomavirus 11)) OR (Human papillomavirus 16[MeSH Terms])) OR ("Human Papillomavirus Recombinant Vaccine Quadrivalent, Types 6, 11, 16, 18"[Mesh])) OR (Human Papilloma Virus Vaccine)) OR ("Papillomaviridae/pathogenicity"[Mesh])) OR (Papillomavirus Vaccines)) OR (Papillomavirus Infections)) OR ((HPV OR "Human Papillomavirus" OR "Human Papilloma Virus")))) AND (((Social Stigma OR (Stigma) OR (Shame OR "Social Support"[Mesh] OR stigmatized OR Stereotyping OR Blame))))) NOT ((((((("Asia"[Mesh]) OR "Africa"[Mesh]) OR "Europe"[Mesh]) OR ("Australasia"[Mesh] OR "Oceania"[Mesh])) OR "Canada"[Mesh]) OR "Mexico"[Mesh]) OR "South America"[Mesh]) OR "Central America"[Mesh])) NOT ((((((China[Title/Abstract] OR India[Title/Abstract] OR Vietnam[Title/Abstract] OR Bolivia[Title/Abstract] OR Africa[Title/Abstract] OR Canada[Title/Abstract] OR Nicaragua[Title/Abstract] OR Costa Rica[Title/Abstract] OR Bangladesh[Title/Abstract] OR Kenya[Title/Abstract] OR Greece[Title/Abstract] OR Bhutan[Title/Abstract])))) OR (peruvian[Title/Abstract] OR canadian[Title/Abstract] OR nigeria[Title/Abstract] OR alberta[Title/Abstract] OR malawian[Title/Abstract] OR mexico[Title/Abstract] OR Guatemala[Title/Abstract] OR france[Title/Abstract]))))) NOT ((Senegal[Title/Abstract] OR Zimbabwe[Title/Abstract] OR Cambodia[Title/Abstract] OR Singapore[Title/Abstract] OR Dominican Republic[Title/Abstract] OR Italy[Title/Abstract] OR "middle-income countries"))
Cervical Cancer and Stigma	PsycINFO	(((((Cervical OR Cervix) AND (cancer) AND (screening)))) OR (Uterine Cervical Neoplasms OR Cervical Cancer OR Cervix Cancer OR Cervix Neoplasms OR Cervical Neoplasms OR MAINSUBJECT.EXACT("Cervix") OR "Cancer of Cervix" OR "Cancer of the Cervix" OR "cervical cancer screening") NOT Neck) AND (((Social Stigma OR (Stigma) OR (Shame OR (MAINSUBJECT.EXACT("Self-Stigma") OR MAINSUBJECT.EXACT.EXPLODE("Stigma") OR MAINSUBJECT.EXACT("Shame") stigmatized OR Stereotyping OR Blame))))) AND lo.Exact("US")
Cervical Cancer and Stigma	CINAHL	((((((((Cervical OR Cervix) AND (cancer) AND (screening)))) OR (Uterine Cervical Neoplasms OR Cervical Cancer OR Cervix Cancer OR Cervix Neoplasms OR Cervical Neoplasms OR (MH "Cervix Neoplasms+") OR "Cancer of Cervix" OR "Cancer of the Cervix" OR "cervical cancer screening") NOT Neck) AND (((Social Stigma OR (Stigma) OR (Shame OR (MH "Stigma") OR (MH "Shame") OR stigmatized OR Stereotyping OR Blame)))) AND (MH "United States+")

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