INTRODUCTION

The first vaccines against human papillomavirus (HPV) were introduced at the beginning of this millennium. HPV is the cause of virtually all cervical cancers, which result in about 311,000 deaths among women every year, as well as many other genital and oropharyngeal cancer tumours [1]. HPV vaccination is a highly effective public health intervention to reduce the incidence of cervical cancer. By October 2019, 100 countries around the world had introduced HPV vaccination for girls as a part of national vaccination programmes, 11 of which had also introduced the vaccine for boys [1]. Despite this broad international adoption; however, only 30% of the global target group has been reached.

In Sweden, the HPV vaccine has been offered to girls aged 10–12 years since 2010 [2] and to boys since August 2020 [2]. Girls, central in this study, are routinely offered free HPV vaccination by school health services, and parents decide whether or not their daughter should take it [3]. Swedish HPV vaccination coverage in June 2019 was 85% for the first dose and 80% for the complete two-dose regimen [4], lower than for other vaccinations in the national programme [5].

Studies have shown that HPV vaccine coverage rates are lower than those of other childhood vaccinations [6, 7]. One reason suggested for this lower rate is that HPV infections are associated with sexual contact and parents might believe that vaccinating their children might encourage them to become sexually active [8, 9]. Studies have also shown that both parents who choose to vaccinate their daughters and those who refuse lack sufficient knowledge of HPV [10, 11].
Parent’s decisions about vaccinations are based on their levels of trust in authorities and healthcare systems, and vaccination uptake depends upon that trust and parents’ trust in the individual healthcare providers who advise them [12]. Offering the HPV vaccination can be a complex negotiation and healthcare providers have an essential role in providing parents and their children adequate and appropriate information [13]. Lack of information has been described as an obstacle to parents’ ability to make a decision [14, 15]. Parents who refuse or delay the HPV vaccination often make that decision believing the child is not sexually active, is too young for the vaccination at 11–13 years of age, or for some other reason does not need to be vaccinated [15, 16]. Despite research describing parents’ attitudes and decision-making about HPV vaccination [17, 18], only a few studies describe the reasoning they use in these decisions. Knowing how parents understand and consider HPV vaccination for their children might help in developing interventions to improve its uptake. The aim of this study was, therefore, to describe parents’ reasoning about the HPV vaccination in the Swedish vaccination programme.

METHODS

Design

The study had a descriptive qualitative design, with data collected through individual semi-structured interviews; principles of thematic analysis guided the analysis [19].

Participants

Parents of girls aged 10–12 years in a county comprising 34 elementary schools in the middle of Sweden were invited to participate in the study. The school nurses in the county distributed written information and the invitation to participate to all parents whose daughters had been offered the HPV vaccination. The original Swedish information letter and consent form were also translated into Somali, Arabic and Romanian, the three languages reported by school nurses to be used by the main cultural groups in the county. After receiving the information, 30 parents who volunteered to participate in the study contacted the first author by returning the written consent form. The first author contacted those parents by telephone to decide on a time and place for the interview, using an interpreter when necessary. Of the 30 parents contacted, six declined due to lack of time, and four accepted but later declined because the information they had received was not in their own language. A total of 20 eligible parents chose to participate in the study.

Data collection

Semi-structured interviews [20] were conducted by the first author from January to March 2019, 4–5 months after the girls had been offered the HPV vaccination. The interview guide (see Appendix) focused on the parent’s reasons when deciding about their daughters’ HPV vaccination. The opening question was “What do you think about the Swedish vaccination programme?” Parents were then asked specific questions about HPV vaccination, such as “Can you describe how you made the decision whether to vaccinate your daughter against HPV?” The participants chose the location for the interviews. One was conducted at a library, three in the participants’ homes, two at participants’ workplaces and 14 in a room at the university. For parents who chose to participate in the study but did not speak Swedish (n = 4), an interpreter attended. The interviews were conducted by the first author, were audio-recorded and lasted from 20 to 41 min.

Ethical considerations

The study was approved by the Regional Ethical Review Board in Uppsala Sweden (registration number 2017/243). The participants received written information in their own language explaining the purpose of the study. They were informed that participation was voluntary, they could withdraw from the study at any time, and the data would be treated confidentially. Interviews with non-speakers of Swedish were attended by an authorised interpreter who participated with the parents’ consent and translated the interviews as accurately as possible. The interpreters were also bound by a professional duty of confidentiality.

Data analysis

The interviews were transcribed verbatim by a professional transcription service, combined in a single text and analysed according to inductive thematic analysis [19]. The thematic analysis is described by Braun and Clark in six phases; familiarising yourself with your data, generating initial codes, searching for themes, reviewing themes defining and naming themes and finally producing the report [19].

In the first phase of the analysis, the first author read the text several times to become familiar with the dataset. The second stage was an inductive coding process in which all meaningful segments of data were labelled with descriptive codes (nodes in NVivo). Codes describing similar content were then grouped together, reviewed and re-coded if necessary.
The coding was conducted systematically through the entire dataset using the qualitative data software NVivo 12 Plus (QSR International Pty Ltd). The first author, who was responsible for the analysis, started by sorting the coded data, which resulted in an initial set of themes and subthemes. A mind map was then used to organise ideas and highlight relationships between potential themes [21]. The research group, besides the first author consisting of two more nurse researchers, then checked, discussed and refined the themes to reach homogeneity and coherence in relation to the coded extracts from the dataset. This included revising the themes and identifying the characteristic “essence” of each theme and the dataset as a whole. The quotes that best captured and reflected the themes were identified and included in the text to illustrate the findings. To preserve anonymity, quotes have been de-identified and are labelled only according to each numbered interview, for example, I5 (interview five).

RESULTS

Twenty parents, all aged 33–49 years (Table 1), participated. Of these, only two had refused the HPV vaccination for their daughter.

The analysis of the parents’ decisions for or against the HPV vaccination resulted in two main themes: resources for decision-making and trust in the national vaccination programme. Additionally, three subthemes were derived for each of the two main themes. (Table 2).

### TABLE 1 Sociodemographic characteristics of participants

| Variable                                | n = 20 |
|-----------------------------------------|--------|
| Age, years, median (min–max)            | 45 (33–49) |
| Gender, n                               |        |
| Male                                    | 3      |
| Female                                  | 17     |
| Living situation, n                     |        |
| Married/living with partner             | 18     |
| One parent living with child            | 2      |
| Children per family, median (min–max)   | 2 (1–10) |
| Educational level, n                    |        |
| Higher education                        | 11     |
| No higher education                     | 9      |
| Offered HPV vaccination, n              |        |
| Vaccinated against HPV                  | 18     |
| Not vaccinated against HPV              | 2      |

Note: Abbreviation: HPV, Human papilloma virus.

Resources for decision-making

Parents evaluated and used resources, including the school nurse, available written and oral information and their own knowledge and reasoning to come to a decision. Three subthemes were noted.

Relationship with the school nurse

Parents discussed a change in school health services that meant the school nurse was no longer as available as previously. Children were now referred to primary healthcare instead of the school nurse for minor physical symptoms or other non-school-related problems, while the school nurse handled only school-related matters which includes the HPV vaccination. Some parents felt uninformed about the changed boundaries and the change in the school nurse’s role. These parents also noted that sometimes a school nurse, and not always the same one, was present only a few days a week. One parent comment, “I think there is much else to do [for the children] to promote their health. They [the nurses] are quite anonymous” (I12).

Parents who had established ongoing contact with the school nurse (e.g. when the child has medical problem that has to be taken care of during school time) described good experiences and felt trust in both the school health services and the school nurse. Parents who had not established such contact were also satisfied and felt confident that, if necessary, they could contact the school nurse for help.

Information about the HPV vaccination

All parents in this study received written information about the HPV vaccination from the school nurse by post, email or a letter sent home with their daughter or orally in person or at group meetings. Some parents who received the information by post did not know where it came from and thought it might have been sent by the county council or some other public or government organisation. Parents who were informed at a meeting with the nurse and other parents present sometimes felt pressured to accept what they perceived to be the norm and reluctant to expose their own opinions or hesitancy about the vaccination.

One parent who called the school nurse described her as very helpful, but not very knowledgeable about HPV vaccination, as she asked the school physician to contact the parent with more information rather than responding to questions herself. Other parents felt that the school nurse did not have time to discuss the vaccinations. “It is probably
Parents’ reasoning about HPV vaccination

Most parents described the information they received from school nurses, including links to webpages for more information, as relevant, adequate and more comprehensive than information about other vaccinations in the programme. They understood it as a new vaccine that required extensive information. Other parents, however, felt that the information was inadequate. Some of the non-Swedish speaking parents had received written information that was not in their own language, so they had difficulties understanding it, sometimes relying on their daughters to interpret and explain. Parents of children in schools with greater national diversity said that the information provided by schools should be clearer than that given by schools in areas with mostly Swedish families. A parent stated, “And I think, like, my little girl, she has a lot of foreign children in her class and it would have been good if there had been some clearer information, just for the families” (I11).

Some parents interpreted the possibility of vaccinating their daughters at a later date as an opportunity to delay their decision, and their opinions differed about vaccinating girls younger than 11 or 12 years old. Apart from those few with no opinion at all, half the parents thought the vaccination age of 10–12 years was appropriate, although one argued that children may be more or less able to understand HPV depending on their individual development. Parents also said that girls’ readiness for the vaccine probably also depended not only on their own physical strength and development, but also on what they had learned at school about their own body. A parent stated, “Now [at age 12] she is more…, her body is more mature to accept a vaccine, she is not so vulnerable because she is older, she has grown a little” (I3).

To augment information from school health services, most parents also looked up HPV and vaccination on the Internet, especially on the 1177 Medical Advice website [22]. The parents searched for reports written by professionals and tried to find as much nuanced information as possible. Some wished for better links to articles and reports from reputable healthcare sites and said it was sometimes difficult to find information they could be sure was evidence based: “You can find scare propaganda, so you have to be careful what information you read” (I4).

Friends and other parents were also sometimes trusted sources of information. One parent sceptical aboutTABLE 2 Main themes, subthemes and examples of respondent’s responses

| Main themes | Subthemes | Examples of respondent’s responses |
|-------------|-----------|-----------------------------------|
| Resources for decision making | Relationship with the school nurse | Today it seems to be only school-related things that the school nurse is dealing with. It’s probably that they are not in place all the time, but they may be there twice or three times a week. So, it’s maybe a little bad. |
| Information about HPV vaccination | | I thought it was good basic facts. And that, there was enough information to be well informed. That I should call the school nurse and ask about the pros and cons of vaccination, no, no. |
| Parent’s responsibility | | Yes, maybe not in detail, we actually do not, so in detail that it’s about these diseases or so. For me as an adult to take responsibility for my children getting vaccines, which cannot make their own choice, I want to know that it is - that it feels safe. |
| Trust in the national vaccination programme | Following recommendations | I think that is good. these... yes... traditional elaborate well researched.. vaccinations. It is clear that everyone should get vaccinated” so I have no concerns at all, I have always been positive about vaccinations. |
| Safe vaccines | | I think it’s good but... you get a little reserved on these vaccinations that came out for the swine flu. It is clear that there are side effects, but on the whole I trust that you know what is good. |
| Belief in the benefits to society | | I think you should go and take the vaccinations that you are offered.. partly for your own sake but then for the sake of society as well, those you meet, who may not be able to get vaccinated, I think. It is clear that boys need it as much as a girl. So yes, so I think it’s great, great, otherwise it’s going to be like discrimination and we should not do that. |

no[t a good] idea to talk to her [the school nurse]. She thinks everything is good, and she is pro-vaccination” (I19).
vaccination said that she would like to discuss it with a “neutral” person, not someone employed in medicine. Parents generally described social media as informative, but also said they were wary of “fake” sources. One parent noted having seen commercials for other vaccines, such as hepatitis, but never for HPV.

Parents’ responsibility

Most parents took responsibility for accepting or declining HPV vaccination for their daughters as they considered the children too young to make such decision. It was important to them to feel safe and to make the right choice. One parent reasoned that although health authorities recommend vaccinations as important for children, the final responsibility always lies with the parents. That responsibility sometimes felt difficult for parents who feared their children might suffer side effects, but who also wanted to make the best possible decision for them.

I want to make a decision on the right grounds. It is the same as when you buy a house; you want to find out everything about the house before you buy it, you want to have made the right choice.

(I14)

In some families, it was an unspoken rule that the mother was responsible for vaccination decisions; in others, the father explicitly left that responsibility to the mother. One family described “sharing” responsibility for health and illness in that the father took care of himself and his own chronic illness, while the mother took care of the rest of the family’s health issues, including vaccinations.

Most parents talked at least a little with their daughters about vaccination as generally positive measure against disease, but not all discussed HPV in particular. Some, however, were more detailed and told their daughter about cervical cancer and how they could become infected with HPV. The parents who talked specifically about HPV vaccination were clear that discussing the vaccine did not mean the girl could decide whether or not to accept it. She commented, “I explained in detail why she should have it, and what the pros and cons are with the vaccination. It is for her future” (I15).

Parents opposed to giving the HPV vaccination earlier reasoned that girls should not be sexually active earlier than the age of 12, so it was not necessary to vaccinate them before that age. These parents also felt that it would be more difficult to talk about the vaccination to younger, more immature children, who might have difficulty understanding the concept of sexually transmitted diseases. One parent reasoned, “If we are going to explain to the children why they should be vaccinated and what the purpose is, they will not have so much understanding” (I115).

Several parents agreed the most important consideration was that the girls receive the HPV vaccination before their sexual debut. One mother had had her own experience with cervical cancer, so the HPV vaccination for her daughter was even more important to her. Another parent who was positive about the vaccination also encouraged her daughter to talk positively to her classmates in case any of them were hesitant to vaccinate.

Parents who did not talk about vaccination and HPV with their daughters thought that their children would not understand the purpose of the vaccination because they were too young. Another reason for not talking to the child was fear that the daughter might say no to the HPV vaccination and the parent would find it difficult to argue in its favour. Instead, these parents just made it clear to the child, without any other explanation, that it was time for a vaccination. A parent explained, “She is only twelve years old; I may not discuss her cervix” (I9).

Trust in the national vaccination programme

In parents’ reasoning about the HPV vaccination and trust in the vaccination programme, the analysis resulted in three subthemes: following recommendations regarding HPV, the safety of the vaccines and the benefits for the population.

Following recommendations

All parents but one expressed trust in the national vaccination programme because most recommended vaccines were well established and had been offered for many years. In general, they said that they were used to following these recommendations and did not think more deeply about vaccinating their child; they trusted the system. The one parent who did not believe in the vaccination programme could not give reasons for this distrust.

Parents also reasoned that vaccinations were necessary and that people should be grateful to have a such good vaccination programme in Sweden. They also hoped that
vaccine research would continue so more serious diseases could be prevented and declared that their confidence in recommendations was based on science. A parent stated, “I have great confidence that the authorities do the job they are supposed to do and that the vaccinations [in the vaccination programme] are the ones that are tested and... give them on good grounds” (I14).

Safe vaccines

All parents were aware that vaccines, like other drugs, might have side effects, but most relied on the authorities’ assurance that the HPV vaccine is safe. A parent commented, “It is very unfortunate that some people get side effects [from vaccine], but you can get them from regular drugs as well”. “But I find it scary how it triggers some people to become anti-vaxxers” (I11).

All parents said their experience of the swine flu pandemic and the mass vaccination’s side effect of narcolepsy had affected their thinking about vaccinations and made them more reluctant to accept vaccines. Most of these, however, argued that the swine flu vaccine had been manufactured too quickly, making them more sceptical of other quickly introduced vaccines, but that the HPV vaccine had been well enough tested for them to feel it was safe. A parent reasoned, “It [swine flu vaccine] was developed quickly because there was an epidemic. It was not as well tested and I thought it felt nasty to give it to my children” (I5).

Belief in the benefits to society

Parents commonly reasoned that the vaccinations were good not only for their own children, but also for society in general. They were aware of the polarised debate about the benefits and risks of vaccines, and several found it difficult to understand why others would not vaccinate, arguing for the importance of protecting everyone, especially children, from dangerous diseases. The parents had also thought about what would happen if vaccination coverage were to drop, which they thought could be the result of a public lack of the knowledge about the benefits of vaccination.

It seems like it makes sense to take it [vaccine] for solidarity, since there are groups that cannot take them [vaccinations]. If you can take them, then you should take them for that reason, although it is not dangerous for me to get that disease. (I14)

Some parents discussed the importance of vaccinations in light of the resurgence of diseases previously considered eradicated in Sweden but being brought back in by travellers and immigrants. They mentioned that physicians may not recognise these diseases, which have not been seen in many years. With free vaccinations, all parents can vaccinate their children, which they explained was good for everyone. Some vaccinations were even seen as so important that the parents would pay for them if they were not for free. One parent stated, “Everyone should get it [vaccine] and then it will prevent these diseases and ... you get better public health” (I7).

All parents approved in theory of including boys in the HPV vaccination programme, although several were not convinced that it would be useful or effective. Some who described cancer as a disease that could affect both sexes thought it obvious that boys should be vaccinated. Others thought that vaccination against HPV was aimed to protect boys in gay relationships. Several parents, however, admitted a lack of knowledge about HPV vaccination for boys and did not know why boys should be vaccinated or how vaccination could protect them. Some wondered if the vaccine protected against prostate cancer and others thought that the HPV vaccine was made specifically for girls. A parent reasoned, “I don’t know if it will have any effect to give the boys this vaccination, for boys have no mucous membranes. I don’t know where the virus is in their body” (I2).

One parent reasoned that since it is possible for Sweden to vaccinate all children, not just girls, boys should be included in the HPV programme as a preventive measure included in the healthcare service that taxpayers should expect.

DISCUSSION

Consistent with other research on HPV vaccination [23], we found that most parents trusted the Swedish national vaccination programme. Despite that trust in the programme; however, the vaccination coverage for HPV is lower than for other vaccinations and our findings point to some possible explanations.

Although many studies have explored decision-making in regard to HPV vaccination, this is one of only a few to describe the parents’ reasoning about whether or not to involve their daughters in the decision. Parents in our study were willing to explain their decision about HPV vaccination to their daughters but not involve them in the decision itself. Their reasons were mainly grounded in the girls’ young age and their presumed lack of the knowledge and capability necessary to judge the relevance of the vaccine to their own health. Parents
felt that they were best equipped to make the right decision for their children. An American study describes similar findings in which parents mainly made the decision, but unlike parents in our study, they allowed the girls to participate in the decision-making process [24]. The American study findings did agree with ours, however, in that when parents and daughters did not agree, the parents made the final decision about the HPV vaccination [24].

In our study, some parents talked to their daughters about HPV and vaccination even though they did not involve them in the actual decision. McRee and colleagues showed that parents were more likely to talk about HPV if their daughters were aged 15 years or older and if the parents were well informed about HPV vaccination. It was less common for parents in that study to discuss the vaccine with girls aged 11–14 years. Mothers were more likely than fathers to talk with their daughters about HPV vaccination (as confirmed in our study), especially about its pros and cons [24].

To involve children in the decision about HPV vaccination, parents need to have knowledge about HPV. It was obvious in our interviews that most parents lack this knowledge, as has been shown in several studies [25–28]. Although general knowledge has increased since the start of the HPV vaccination programme [29] and there is evidence for an association between increased knowledge about vaccines and their uptake [30], parents still lack knowledge or are incorrectly informed about vaccines [30]. It is, therefore, important to increase their knowledge about vaccines, especially when changes such as including boys are made to the programme. Adequate knowledge about the HPV vaccine, however, must also include more general knowledge about children’s health for the girls to achieve vaccine/health literacy [31, 32]. Health literacy can be seen as a combination of four dimensions; access/obtain information, understand information, process/appraise information and apply/use information, which are all relevant to disease prevention and health promotion [33]. In this case, the goal was to increase the uptake of HPV vaccination.

The school nurse can play an important role in helping parents and children to achieve such literacy. Previous studies have shown that the school nurse is an important source of information on vaccinations and can facilitate vaccine acceptance and uptake [34, 35]. The school nurse can also be a source of knowledge about HPV to promote children’s health. This means that the school nurse needs to take more responsibility for supporting children’s vaccine/health literacy in collaboration with the parents.

Our study found that non-Swedish-speaking families did not always get information about HPV in their own language and sometimes had to rely upon the daughter to explain the information provided. This could be a problem in HPV vaccination, as parents who do not understand the information find it difficult to make an active decision. The PHAS has produced information material in several languages, but how many families receive the information in their home languages is not described.

Receiving information about HPV in a parents’ meeting was not seen as optimal, as some parents perceived the norm to be vaccine acceptance and were not comfortable exposing their hesitance to other parents. This finding matches previous literature reporting child vaccination as a social norm [36]. This norm can influence parents in their decision to vaccinate or not, but vaccination/health literacy remain vital to making an objective evidence-based decision.

In general, parents trusted the national vaccination programme, but all said the narcolepsy side effect of the swine flu vaccine [37] had affected their way of thinking about vaccinations. Their main concern was the haste of the swine flu vaccine’s manufacturing, which they felt was not safe. Similar concerns about a rush to bring a vaccine into use may influence parents’ future decisions about vaccinations. Some parents in our study, consistent with those in a study by Karafillakis and Larson [38], said that their major concern about the HPV vaccination was its newness, relatively short testing and possible as-yet-unknown side effects. Another review describing events after the swine flu vaccination reported increased scepticism towards vaccinations in general. Trust in health authorities and support for vaccinations appeared to vary across countries in another study that found an overall need for better information or communication strategies for vaccinations [39]. In Sweden, the PHAS provides the material school health services use to inform parents and children about the HPV vaccination. One way to increase HPV vaccination coverage could be to develop communication strategies that the school nurse can use to convey PHAS information to increase parents’ and children’s vaccine/health literacy and vaccine uptake.

**Limitations**

The use of a qualitative design enabled us to analyse the parents’ reasoning about HPV vaccination, but our study has some limitations. The letter of invitation to the study may not have reached all parents or been in a language they understood, so the study sample may have suffered from selection bias. The interviews were also conducted after the decisions were made, meaning there may have
been some recall bias [40]. However, the retroactive interviews could be considered a strength as the parents had had time to reflect upon their reasoning and decision about the HPV vaccination.

CONCLUSION

Our study highlights some important aspects of parents’ reasoning about HPV vaccination and the Swedish vaccination programme. Parents and children need more knowledge and vaccine/health literacy to make an informed decision regarding vaccinations. The school nurses’ can play an important role in facilitating evidence-based decision-making about HPV vaccination and introducing children to health promotion programmes, which later can lead to an increased vaccination coverage.

Another important aspect is to reach non-Swedish spoken families with information regarding HPV. One way to reach the families could be through policies/routines for how the information is to be provided, which also facilitates the school nurses’ work. The Public Health Agency has published material on HPV in five different languages in addition to the Swedish language. Material can be used for the school health services when they inform the parents about the HPV.

To reach parents and children with vaccine/health literacy can be a challenge; it is clear that the school health services need better ways to inform and engage parents regarding vaccinations. For that the school nurses need strategies, focus on engaging parents with evidence-based information. Further research about interventions to increase knowledge and vaccination coverage for HPV is warranted.

CONFLICT OF INTEREST

The authors report no conflict of interest.

AUTHOR CONTRIBUTIONS

ER: Study design, data collection, analysis, drafting of the manuscript. ME: Study design, analysis, drafting of the manuscript. KB: Study design, analysis, drafting of the manuscript. All authors approved the final version of the manuscript.

ETHICAL APPROVAL

The study was approved by the Regional Ethical Review Board in Uppsala Sweden (registration number 2017/243). The participants received written information in their own language explaining the purpose of the study. They were informed that participation was voluntary, that they could withdraw from the study at any time, and that the data would be treated confidentially. Interviews with non-speakers of Swedish were attended by an authorized interpreter who participated with the parents’ consent and translated the interviews as accurately as possible. The interpreters were also bound by a professional duty of confidentiality.

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APPENDIX

INTERVIEW GUIDE

Opening questions:

- How many children do you have?
- How old are they?
- Can you describe your experience of the School Health Services?

Targeted questions:

- What do you think about vaccinations?
- What do you think about the national vaccination programme?
- What do you think about the vaccination against HPV?
- What information have you received regarding the HPV vaccination from the School Health Services?
- How did you receive information regarding the HPV vaccination from the School Health Service?
- Have you obtained information about the HPV vaccination elsewhere?
  - If yes, where did you obtain information?
- Can you describe how the decision was made, to vaccinate/not vaccinate your daughter?
- Who/which in the family made the decision to vaccinate/not vaccinate your daughter?

- How would you like the decision-making regarding the HPV vaccination, to be implemented?
  - regarding information
  - regarding invitation
  - regarding communication with the school nurse
  - regarding support in deciding to vaccinate/not vaccinate
  - is there something you are missing when it comes to the decision-making and the HPV vaccination?
- What is the reason that you have chosen to vaccinate/not vaccinate against HPV?
  - How has the treatment/follow-up been from the School Health Services when you said no to the HPV vaccination?
  - is there something you are missing when it comes to the HPV vaccination?
- Has/have your child/children been vaccinated for any other disease than HPV?
- What do you think about if your child should receive the HPV vaccination at an earlier age?

Concluding questions:

- Do you have any further questions and/or thoughts you want to share?