



Barriers and facilitators to cervical cancer screening in Nepal: A qualitative study

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ABSTRACT

Objectives: Despite being preventable, cervical cancer remains the most common cancer among women in Nepal, a country where there is no nationwide screening programme. Hence, the objective was to investigate and better understand Nepali women's perceptions on barriers to participation in cervical cancer screening and what might facilitate their participation.

Methods: A qualitative study design with focus group discussions was employed and women were purposively invited. The interviews were tape-recorded, transcribed verbatim, and analysed using manifest content analysis.

Findings: Women had misconceptions about the screening and low levels of knowledge. Sociocultural barriers, service providers' behaviour, geographical challenges, and limited finances were all perceived as obstacles to attending screening centres. Facilitating factors, such as participation in awareness programmes and support from family and women's groups, may convince women to attend screening clinics.

Conclusions: The findings contribute information on Nepalese women's perceptions of cervical cancer screening. They may serve to support the Government of Nepal's promotion of cervical cancer screening and treatment as a right for all Nepali women, whenever necessary.

Introduction

Globally, cervical cancer places a large burden on individual women, families, economies, and impoverished health systems. The majority of deaths from cervical cancer occur in less developed regions [1]. In 2018, cervical cancer was reported by the WHO as the fourth most common cancer in women in the world with 311,365 deaths [1]. According to the latest available sources, it is the most common cancer among women in Nepal [2,3], despite being preventable in most cases.

Women in rural and low-income settings face various challenges relating to education, geography, cost, access to health care, and family acceptance to seek care, that may not exist in high-income areas. Nepal has a patriarchal social structure, in which women's health is influenced by existing socio-ecological conditions. Only 57.4% of women are literate, compared with 75.1% of men [4]. The mean age for marriage for Nepali women is 20 years, and they often give birth to their first child soon after [4]. A recent study from Nepal shows that women have to adjust to decisions being made about their health and access to health

care by members of their husband's family [5]. Due to cultural norms, most women are not used to talking about reproductive matters, nor are they encouraged to do so, as genitals are perceived as shameful and should be hidden. Furthermore, gynaecological examinations are not performed for unmarried women. Thus, Nepali women face a number of obstacles to attending screening programmes.

Only 2.8% of women aged between 25 and 64 years were screened for cervical cancer in 2003, and most of them lived in urban areas [2]. Other factors that influence the low rate of screening are shortages of skilled health personnel, shortages of equipment, the transportation of samples, and the availability of laboratories with qualified staff. A Pap test (Papanicolaou cytological test) costs in the range of USD 3–10, and may not be affordable for all Nepali women. Lack of knowledge about cervical cancer and screening for it, both in communities and among health workers, has been identified an obstacle that prevents women from being screened [6,7].

The World Health Organization (WHO) recommends a well-organized system for effective screening of cervical cancer, diagnosis,

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treatment, and follow-up, and suggests that the Pap test is the only test proven effective among large populations to reduce cervical cancer incidences and mortality. Other diagnostic tests are VIA (visual inspection with acetic acid) and tests for HPV (human papilloma virus) [8]. VIA is used in Nepal to detect potential cervical dysplasia. In the case of a positive VIA screen, the Nepalese Ministry of Health & Population recommends a Pap test [3]. HPV vaccination, which is used as a primary prevention measure together with successful screening programmes in many high-income countries, is not available in Nepal. Tests have occasionally been provided free of cost in certain areas, mainly through various national and international organizations [6,9]. Referrals are admitted to village health posts or to district, regional, or tertiary hospitals based in the capital city, Kathmandu. Health awareness and empowerment programmes for women have been implemented by female community health volunteers in some districts, under the supervision of staff from the nearest village health post [10]. Nepal lacks a nationwide screening programme and no population-based cancer registry exists. Thus, the incidence and prevalence of cervical cancer in the country may be underreported.

A cancer prediction study conducted in Nepal and based on statistical modelling revealed that there would be an increase in cervical cancer cases. In total, 10 million women above the age of 15 years are at risk of developing cervical cancer, and therefore a reinvigorated and tailored approach to cervical cancer prevention is urgently required [11,12]. The Government of Nepal has identified cervical cancer screening, followed by treatment whenever necessary, as the right of every Nepali woman, and aims to incorporate this service into the public health system. Accordingly, national guidelines for cervical cancer screening were developed in 2010 in order to achieve a 50% screening rate of the target population – women in the age range 30–60 years – by 2015. The guidelines advocated VIA as the primary screening method at all the levels, from primary to tertiary health care level. However, the outcomes and implications of the screening strategy have not been made publicly available.

Although quantitative studies have identified lack of knowledge as an important barrier to cervical cancer screening, there is a lack of data on perceived barriers to such screening and possible facilitators of screening. It may not be convincing to accept that low levels of knowledge alone account for the low screening rate [6]. Our study therefore focused on women's decisions to seek care and their access to care through cervical cancer screening programmes [13]. Nepali women's ability to participate in a screening programme may require behavioural changes on their part, depending on their knowledge and previous experiences, which in turn may facilitate their acceptance of an offer to participate in a screening opportunity. They need to acknowledge that the potential benefits outweigh the barriers to participation, and to develop the confidence and authority to act accordingly, described in the Health Belief Model (HBM) [14,15].

The aim of our study was to gain a better understanding of complex barriers that have prevented women from attending cervical cancer screening in Nepal and what may facilitate their actions. We anticipated that the findings would serve as a basis for countries with a similar screening situation to that in Nepal to prepare effective guidelines for the development of women-friendly and appropriate interventions and policies for cervical cancer screening.

Methods

Study design

A qualitative study design was used to explore Nepali women's perceptions on cervical cancer screening and especially their views on related barriers to participation and facilitators that might increase their willingness to participate. Focus group discussions (FGDs) were held to capture the collective details of the participants' experiences of cervical cancer screening. The women's perceptions and the

information gathered within the groups would not have been revealed in a quantitative questionnaire survey.

Study setting

The study was carried out in Dhulikhel Hospital and in three communities in Dhulikhel Municipality, 30 km east of the capital. In 2015, Dhulikhel Municipality had a total population of 16,263 people, 7871 women [16]. The hospital covered a population of 1.9 million people from Kavrepalanchowk District and its surroundings [16]. Dhulikhel Municipality comprises mainly members of the Newar ethnic group, and common religions are Hinduism and Buddhism. In 2015, 60.9% of the women in Kavrepalanchowk District could read and write, and most people (> 90%) were engaged in agriculture [16]. The study was conducted in Dhulikhel for reasons of convenience, since all authors worked in and were familiar with the district. A further reason was that the socio-economic conditions of women in the region were representative of women nationally.

Study participants

All of the women who participated in the study were purposively selected to ensure variation in terms of age, educational background, and socio-economic status. We included married women, who were fluent in the Nepali language. As gynaecological examinations were not (and are not) performed for unmarried women, we considered that such women have fewer opinions on cervical screening and/or were unlikely to speak freely about reproductive health matters. Three FGDs were held in the hospital, and four in communities in Dhulikhel Municipality. Some of the participants had participated in a cervical cancer awareness and screening programme run by a community department. The programme included knowledge of cervical cancer as a disease, its risk factors, and its prevention. Some participants had prior experiences of screening done using VIA, while others had not participated in any such activities.

Women who attended a consultation with a physician who specialized in gynaecology at Dhulikhel Hospital were assessed for eligibility by the first author, a nurse, and if deemed eligible, they were invited to participate in our study. While they waited to see their doctor, women who had agreed to participate in the study were gathered in a separate room to take part in FGDs.

To recruit participants in Dhulikhel Municipality, the first author collaborated with one community department staff member who was responsible for providing health education. In total, 72 women voluntarily agreed to participate in the study. Each FGD had 8–12 participants, and all FGDs were held in August and September 2016. The women were in the age range 25–60 years. Most of them were farmers' wives and worked in households and in the fields. All spoke Nepali, the mother tongue for people in the selected district.

Data collection

Prior to holding the FGDs, we prepared a guide containing open-ended questions followed by probing questions, based on topics drawn from relevant literature [14–15,17–21]. The topics covered the participants' thoughts about cervical cancer and screening, and the barriers to and/or facilitators for screening.

During the FGDs, the participants were informed about the objectives and method used in the study, as well as the advantages and potential disadvantages of their participation. Thereafter, their verbal informed consent to participate was secured. The first author conducted all of the FGDs and one assistant took notes for data analysis. The FGD sessions lasted 30–90 min, and continued to be held until no further information was obtained and the first author perceived that data saturation had been achieved. Three FGDs held in Dhulikhel Hospital (DH) were coded FGDH1, FGDH2, and FGDH3, while the four FGDs

held in the Dhulikhel communities were coded FGDC1, FGDC2, FGDC3, and FGDC4.

After obtaining agreement from the participants, the discussions were tape-recorded and later transcribed verbatim and translated by the first author from her native Nepali to English. Thereafter, they were checked for accuracy by being translated back into Nepali by the second author.

Data analysis

Qualitative manifest content analysis, as described by Graneheim and Lundman in 2004 [22], was used to analyse the data. The reason for performing a manifest analysis was to ensure that we analysed only what was said by the participants. We wanted to follow the transcribed texts closely and focus on the words used by the participants, rather than trying to interpret what they had said and thereby reveal any underlying meanings – an approach known as latent content analysis.

The data were read several times to enable us to become familiar with the discussions and to obtain manifest meanings from the text. The transcripts were sorted using mind-mapping software (Mindjet's MindManager) to facilitate the organization of the meaning units. The meaning units were verbatim quotes from the participants, and were shortened, condensed, and coded. The codes were given names and codes that covered the same item were merged into a specific subcategory. Finally, the subcategories that we thought belonged to each other were given a new heading, thereby creating a few categories according to what they revealed (Fig. 1). The final stage of the analysis was carried out by all three of us, and we discussed the categories and subcategories until agreement was reached on the naming of the categories.

Ethical considerations

Ethical clearance was obtained from the Regional Committee for Medical and Health Research Ethics for Central Norway (REK Midt Norge nr. 2016/869), the Internal Ethics Review Committee of Kathmandu University School of Medical Sciences in Dhulikhel (IRC/KUSMS no. 66/16), and the Office of the Municipal Executive in Dhulikhel. Verbal informed consent was obtained from the recruited women prior to data collection and the women were assured of their right to terminate their participation at any time during the study. Participants were asked to share information only about what they felt comfortable sharing. The confidentiality of the participants was respected by conducting each FGD in a private room and by not asking for the participants' names, which would otherwise have been their main identifying data. The participants were aware of and had agreed that the FGDs would be tape-recorded, and they were assured that the recordings would be used only for research purposes and that it would not be possible to identify individual participants.

Findings

During the part of the data analysis performed using content analysis [22], three categories of responses emerged from subcategories of responses (Table 1): (1) misconceptions about cervical cancer and screening behaviour, (2) barriers, and (3) facilitators. Each category are discussed under a separate section heading in the following.

Table 1
Participants' responses – categories and subcategories.

Categories	Subcategories
Misconceptions about cervical cancer and screening behaviour	Low levels of knowledge Screening procedure
Barriers	Sociocultural barriers Service providers Financial barriers Geographical challenges
Facilitators	Awareness programme Motivation

Misconceptions about cervical cancer and screening behaviour

It was apparent that there were a number of misunderstandings among the Nepali women about cervical cancer and the procedure for screening for the disease.

Low levels of knowledge

A common opinion among the participants was that cervical cancer is dangerous, unusual, and requires surgery. However, it was evident that other participants had never heard of cervical cancer. Lack of awareness of symptoms meant that women sought health care only when physical symptoms appeared that had prevented their earlier attendance at clinics for regular screening. The women did not link their scarce knowledge of the disease to risk factors or possible causes of cervical cancer, such as HPV. They had no awareness of HPV screening, as a means of early detection of precancerous stages and possible preventive treatment to avoid the development into cancer:

This disease is a very dangerous condition and we do not know about the symptoms. (FGDH2)

Women associated going to hospital with the experience of certain physical symptoms. For example, they thought that abdominal pain, infections, or other complications caused cervical cancer. Consequently, if they did not have any kind of symptoms, experience difficulties during sexual intercourse, or have any abnormal discharge, they did not feel any need to seek health care:

I would think about this only if I have some problem or difficulty. Now, I do not have any ... Once, there was one free camp in a school and I went for a check-up. They said: 'You are very normal'. Maybe it was 6–7 years ago. (FGDC4)

Some of the women who had already taken part in an awareness campaign shared their thoughts what they considered were risk factors:

If we do not clean our private parts regularly, then it leads to cervical cancer. Also, keeping multiple sexual partners causes cervical cancer. (FGDC3)

Yes, we have heard about cervical cancer. For that, we have to stay away from our husbands, and take medicine regularly. (FGDH3)

Screening procedure

During the FGDs, the women discussed various beliefs about why and how often women should be screened, as well as their differing views on screening campaigns and experiences. Women who had already participated in an awareness programme in their community mistakenly believed that screening should be completed every six months and that women should attend their nearest health centre for



Fig. 1. The qualitative manifest content analysis process.

screening:

We should go to the nearest health centre for screening. If they cannot do it, then we should go to bigger hospitals. (FGDH1)

One woman who had previously been screened shared her experiences of screening as follows:

It was not very easy to do. During the procedure it becomes painful and difficult when you take a deep breath. (FGDC1)

A common belief was that cervical cancer can be screened and treated simultaneously and some participants mistakenly believed that the screening was used to detect other uterine complications, too:

Some have continuous lower abdominal pain. Some feel like their abdomen will prolapse ... So, to make themselves healthy they have to go for [cervical screening] check-up. (FGDH2)

Other women believed that if they had a negative result at the time of screening, they would never 'catch' cervical cancer:

I myself have done that screening. It has been a long time. They said that I had lesions and gave me medicines. I think it's recovered by now. So, I think women should go at least once in their life for check-up. (FGDH2)

Anxiety and fear about the results could cause women to avoid attending screening health posts:

We go for check-up only when we have a disease or some problem, else we do not go, we cannot think about such things. (FGDH1)
I felt that I would get some disease, because of that [mental] stress. I started thinking what I would do if the report was not normal. (FGDC2)

Barriers

The participants' perceptions of barriers to their attendance at clinics for screening for cervical cancer were sociocultural, including mistrust and gossip, negative experiences in previous meetings with service providers, the challenging geography of the country, and financial limitations. Such barriers contributed in complex ways to whether or not the women agreed to be screened for cervical cancer.

Sociocultural barriers

A number of barriers at societal and family levels were identified by the participants. For example, they thought that other community members would become suspicious and gossip about them if they attended clinics for screening. Additionally, since having multiple sexual partners is one of the risk factors for cervical cancer, some women feared that if they attended a clinic for cervical cancer screening, it might be assumed that they had committed adultery:

We have not taken part in illegitimate sexual intercourse, so we feel ashamed in going there and asking for screening. (FGDC3)

Women who live in a male-dominated society may lack decision-making power and feel restricted about talking and expressing their feelings. As a consequence, their health may be neglected and since they are dependent upon decisions about their health being made by their husbands or in-laws, they may be prevented from attending a screening clinic:

In my relative's home, this problem exists. They do not care about women at home and do not take them to hospital. (FGDC1)
We may not have money to spend ... and we cannot take decisions independently. (FGDH3)

According to social norms, Nepali women are responsible for all household duties. Therefore, the participants felt they had no time for themselves, not even for health screening that could take up much of

their time. It was difficult for them to interrupt their daily routine of cooking for their family, cleaning the house, taking care of the children, and working in the fields:

Every woman should go, but they do not agree to go because of their household work. They have to waste much time in hospital. (FGDC2)

Many women expressed that they felt ashamed to show their genitals to others. They described how, due to feelings of shame, they were hesitant to attend clinics for check-ups, even when they experienced negative physical symptoms. Additionally, having male health care providers perform the screenings was perceived as a cause of shame, and some women even lied to male doctors about their reason for visiting the hospital because they did not want to expose their intimate body parts for screening if they did not have any other valid reason to attend an appointment:

My daughter has some problem with her uterus, but she feels shame to go for a check-up... She complains every time about her problem, but does not want to go for treatment. She feels awkward to go there. (FGDC1)

Service providers

The participants seemed to lack trust in health care providers due to experiences of inappropriate behaviour by some of them:

My mother-in-law who is bit aged ... she felt ashamed because they put [their] hands on her private parts. She was unknown about the procedure when she was invited for screening. (FGDC3)

Additionally, the women were of the opinion that a service provider's negligence or incompetence would cause their health to deteriorate and cause complications, and therefore they were hesitant about attending clinics. For example, they assumed that some doctors were not sufficiently competent to diagnose gynaecological conditions:

It's difficult to do it. The health personnel who do screening should be skilled and educated. Also, they should be sensitive towards our feelings ... They do not want to listen to us. They should counsel us properly so that we can understand easily what to do and what not to do. (FGDC1)

Financial barriers

Financial barriers were discussed in all seven FGDs. Lack of money was considered a major barrier to women's attendance at screening clinics. The women were aware of the cost of screening procedures, but they were concerned about incurring unexpected costs if additional investigations were necessary, and they discussed having to face impossibly high costs if surgery was needed:

Without cost, no treatment is possible. We cannot enter hospital without any money. Sometimes it is less and sometimes it is more, but there definitely is some cost. (FGDC4)

When women have to go to hospital for screening, they have to undergo blood tests, urine tests as well. So, they hesitate to go because of increased cost. (FGDC2)

Some women expressed that they stopped attending for screening after finding their test results were negative, as they considered future screening would be a waste of money. By contrast, some of the participants thought that if they were overly concerned about money, rather than giving priority to their health, it might ultimately be harmful for them. One woman suggested that screening should be free of cost in order to avoid the financial barrier, while other women thought that a 50% discount would be acceptable and motivate them to attend for screening. They were of the opinion that the government could not be expected to bear the full financial burden of the service, and a reduction in screening costs would lower the barrier women's use of a screening

service. Yet others believed that a screening service was worth paying for:

Though we may go for free check-ups in camps, we cannot go in case of referral. Everybody does not have good income. So, we step backwards because of money. We would be very happy if we got discount in treatment. (FGDC4)

Geographical challenges

The participants discussed matters relating to physical access to screening. Those who lived in rural areas were less likely to access screening services because many village health posts lacked screening facilities. Furthermore, the nearest health post providing a cervical cancer screening service could be a long distance from their homes and they would need to walk through physically challenging conditions on slippery roads in hilly districts. They were of the opinion that access could be improved by setting up mobile screening camps or by making the service available in health centres nearer to where they lived:

If we had small clinics once a week nearby, then it would be a lot easier for us. More people in the community would be interested. Clinics need not be sophisticated with big machines just for small check-up. (FGDC2)

Our country has complex geography ... in some villages they have to walk one to two hours for drinking water ... Even if they know about it [cervical cancer screening], long distance stops them from coming for check-ups. (FGDC4)

Nepali women may face a number of barriers simultaneously that hinder them from attending for cervical cancer screening. For example, the participants thought that the health sector and media were not sufficiently effective in creating awareness and understanding of the importance of screening and that some women themselves were not interested in health screening services and therefore did not wish to become more aware of them or learn more about them. One woman cried when she said that she was without hope for her own life, and therefore screening or other health care strategies did not matter to her at all:

I had problems like lower abdominal pain sometimes before. I did not want to go for [a] check-up, but everyone scolded me ... My sons are not here and my daughters are married. I am looking after my son's child, who is very small. I thought that I will not live longer and that's OK for me ... until then, I will manage somehow with this problem, but I do not want to go to hospital ... After some time they carried me to hospital, but after [surgery] I was alone again. I still have back pain and fatigue ... The help I got from my family was temporary. There is no difference before and after check-up for me. (FGDC4)

Facilitators

The participants in the FGDs mentioned some factors that made it more likely that they would attend a cervical cancer screening, including announcements and the implementation of awareness programmes to increase people's understanding about health screening, access to health clinics, financial support, support from the families, and support from existing women's groups to reduce women's perception of shame.

Awareness programme

The participants believed that women-friendly awareness programmes that targeted cervical cancer screening would increase their knowledge and motivate them to make use of a screening service. The attributed much value to women's groups, which could be beneficial for meetings about health screening. With the help of female community health volunteers, such groups could facilitate the organization of

successful awareness programmes in the communities:

We have free time during the day. If such activities are carried out in a planned way during the daytime then everyone will participate. (FGDC1)

Some participants were aware of the importance of screening. They understood that seeking health care only when symptoms appeared should be avoided and that instead they should be encouraged to attend clinics for regular screening. Some of the participants did not have access to media, but they believed that different forms of media could be used to facilitate women attending regular screening:

Information can be given through news programmes on television, radio programmes and advertisement. (FGDC4)

Motivations

Motivating factors were discussed on individual, family and community levels. The participants believed that ultimately they themselves and other women should be strongly motivated to attend screening clinics. They also believed that if women prioritized their own bodies and health more, they would probably attend for screening on a regular basis:

Women should have the will to go first. Nobody stops her from going. (FGDC4)

Family support and permission to attend for screening was perceived as important by the participants, and they believed that more women would attend screening clinics if their family members gave permission or encouraged them to go for check-ups:

We were allowed by our family to participate in the women's group. They started believing in us. My family is happy with my screening. My son said that the programme was very nice and that I should go for timely check-ups. (FGDC2)

The participants considered that if more openness among women was facilitated by the women's groups, it would have a positive effect because gaining knowledge from others would motivate them to participate in screening programmes:

Before, we were confined at our home. We did not speak to each other. After forming groups, we were able to share problems with each other and grew [in] confidence to go for screening. (FGDC2)
We used to feel shame to go inside [to have a gynaecological examination]. But now it is different ... in our own group [a women's group], we plan for ourselves, manage time, organize classes and ask for health camps for screening. (FGDC2)

One suggestion was that a competitive environment should be created between neighbouring communities in relation to screening practice, as it might encourage more women to attend cervical cancer screening clinics.

Discussion

The findings from our study provide new insights into the process of women's engagement in cervical cancer screening and help us consider how to increase Nepali women's likelihood of taking advantage of such services. Clearly, the barriers to participation were due to misunderstanding and lack of knowledge, sociocultural norms, distrust of health providers, financial limitations, and challenging physical geography.

The likelihood of women attending for screening is dependent on their knowledge of cervical cancer, their perceived benefits of participation, and their ability to overcome multiple and complex barriers to screening. The Nepali women in the FGDs did not have sufficient knowledge to reflect on their susceptibility to contracting the disease or the possibility of identifying cancer at an early stage. They only considered going to hospital after they experienced symptoms, rather than

attending for screening as a preventative measure. This finding supports similar findings from studies conducted in Serbia, Laos, and Malaysia, where women lacked knowledge of screening and perceived a Pap test as a diagnostic test to be undertaken only when symptoms existed [19,23,24]. Additionally, studies from Asian and Africa have revealed that health workers, too, lack knowledge of cervical cancer and screening for the disease [7,18]. Consistent with the findings from a study conducted among Vietnamese American women [25], some of the women in our study lacked relevant knowledge but they perceived the disease as unusual and severe. This was exemplified by their belief that removal of the uterus would be required to treat the condition. The women did not reveal anything about their own susceptibility to developing cervical cancer, nor did they link the disease to a viral infection. A Malawi study showed that rural women's knowledge of cervical cancer screening was useful unless they experience symptoms of some kind [26]. The Nepali women were aware of the existing health care facilities, but they only tended to visit them when they experienced severe abdominal pain, bleeding, or vaginal discharge. This type of behaviour was found prevalent also among women living also in a high-income country, England, but belonged to ethnic minorities, for whom an absence of symptoms was a cognitive barrier to screening [21].

Some of the Nepali women who had experiences of cervical cancer screening perceived it as beneficial. They felt satisfied and relieved when they received reports of negative results after being screened, and this finding is similar to one from a study conducted in Latin America, where the researchers found that women who prioritized their bodily health had peace of mind [20]. In our study, the women expressed thoughts about a shift towards a more optimistic and motivated view of cervical cancer screening, promoted by awareness programmes, easier access to the screening, and free screening camps organized in their communities. We found that their decision to attend for screening was influenced by barriers such as societal norms, access to health posts, and lack of support from their families; in this respect, Nepali women have little power and ability to act on their own initiative. Similar to findings from studies conducted in a nearby area in Nepal, we found that lack of knowledge and little awareness of the importance of screening affected the women's behaviour [6]. The formation of women's groups had enabled women to become more knowledgeable about the disease and of screening programmes and indirectly had given them a more positive view about them.

Another barrier that was discussed among the participants in our study was that the screening procedure was shameful and uncomfortable. In the Nepali culture, it is customary for women to hide their intimate body parts and they felt embarrassed about discussing screening, especially in the presence of male health care providers. Hence, there is a risk that early detection of the disease will be missed, as has been found in a number of studies conducted in Asia, Europe, Latin America and Africa [17,19,20,25,26]. The 'blame and shame' concept has been discussed as an inhibiting factor in screening among Somali women living in the USA [27].

The Nepali women's busy schedules prevented them from attending clinics for screening, as found in similar studies [17,18,26]. Women's domestic roles, including their responsibility for the household chores and caring for the family, meant that they were unable to attend clinics for cervical cancer screening and thereby risked neglecting their health.

People living below the poverty line struggle to meet their basic needs and consequently they may not prioritize health-seeking behaviour. Our participants vividly discussed how poor economic conditions were perceived as a barrier to access to screening services. The women found it difficult to pay for a Pap test when they were advised to follow up a positive result, and they feared unexpected diagnostic costs, as has been reported for Iranian and Malawian women [18,26].

The participants felt neglected by the health care providers and had little trust in the country's health service. Their experiences seemed to be common to women, as poor communication skills and disrespectful behaviour by health providers have been found elsewhere [19,20] and

they may have been the reason behind women's negative attitude towards the screening services. They asked for empathic health providers, who would perform less painful examinations. They also experienced or anticipated anxiety and fear regarding the results of the screening, which could prevent them from attending for further screening, and this finding is similar to findings in other studies [17,20,26,28,29]. The provision of effective explanations and counselling may be a helpful measure to reduce anxiety and fear among women, and to increase their trust of the health system. Unfortunately, self-performed testing, which does not require the help of another person, is not yet available in low-income countries, due to its high cost. Difficulties in accessing screening services, due to lack of public transportation in the hilly regions of Nepal, meant that some women had to walk long distances to reach a health post, as found in Latin American countries, where access to health facilities was a main barrier to access to health care [20].

Although some of the women in our study lacked knowledge about cervical cancer and screening for the disease, they were positive about awareness campaigns and welcomed suggestions from health care providers that might motivate them to improve their lives. Family acceptance and support was perceived as essential for them to act and to accept cervical cancer screening services. The women believed that the cost of screening should be free or reduced, as that would enable women living in poor economic conditions to be screened.

Usually, women in Nepal living in a patriarchal society have to depend upon male family members or their in-laws to obtain access to health care, due to lack of decision-making authority [5]. Social norms are rigid, which accounts for the participants' perceptions that women have limited independence with regard access to screening or other health care services [19]. Shame and fear of a bad reputation influenced women's decisions as to whether to be screened for cervical cancer. However, globalization, access to the Internet, and fewer joint or extended families, are leading to changes in the Nepali society [5]. As a consequence, women have more possibilities to discuss matters with their husbands or making own decisions regarding their health, which in turn increases their confidence. The women who participated in our study did not directly state that lack of independence was a hindrance to their attendance at screening clinics, but the complexities they described showed that women in Nepal today have limited possibilities to overcome barriers to screening.

Trustworthiness

The credibility of our study was ensured through our collaboration as researchers with different backgrounds, our fluency in Nepali, familiarity with the context, and our knowledge of cervical cancer and screening, as well as the research method that we used. An in-depth understanding of the data was achieved through the systematic analysis performed by all three authors, as the transcriptions were repeatedly read, discussed, and supported by quotes. The study setting, selection criteria, and data collection process were described to allow for transferability. To achieve dependability, all seven FGDs were conducted by the same FGD moderator and research assistant within a two-month period, to increase the consistency of the data.

Strengths and limitations

The main strength of our study was the use of a qualitative method to capture the experiences of the participants and their perceptions of the possible barriers to cervical cancer screening and what would facilitate access to screening. The study was the first of its type conducted in Nepal. Our preconceptions might have affected our interpretation of the findings. The first author is a Nepali nurse, who specializes in oncological care and has several roles in Nepalese cultural and family structural perspectives. This helped to ensure a better understanding of the participants' situation than we might otherwise have had. The other two authors are gynaecologists with experience of studies in low-

income countries, including cervical cancer studies. The limitations of our study might have been that some of the women might have agreed with the most influential participant's view and provided expected socially desirable comments. However, we found that the women spoke in a surprisingly open and vivid way, and we did not have the impression that they held back any information. It is most likely that the women had similar ethnicities because they spoke the same language and therefore the likelihood that we did not gain information from other ethnic groups might have been a limitation. A further limitation was that health care providers' and men's perspectives were not included in the study, but the aim of the study was specifically to understand women's views on cervical screening.

Conclusions

The findings from our study provide insights into the level of knowledge among Nepali women regarding cervical cancer screening. We have identified a number of barriers that prevent women from accessing screening services and discussed the women's perceptions on facilitating factors that could persuade them to utilize screening services. Additionally, we have highlighted the complexity of the factors that influenced women's likelihood of being screened for cervical cancer screening.

This article will offer stakeholders in Nepal insights into women's perceptions on cervical cancer screening practices in the country. Based upon their perceptions on barriers and the facilitating factors, we recommend the provision of affordable, accessible, and women-friendly cervical cancer screening programmes for women in Nepal according to their geographical location. In addition to that provision, a creatively tailored 'mass awareness' programme is required to address the revealed misconceptions about cervical cancer screening. We recommend the provision of training for health care providers of both genders to perform cervical cancer screening. As a UN member state, Nepal has signed and worked towards fulfilling the Sustainable Development Goals. Goal 5 focuses on gender equality, and includes working to empower women to make their own decisions regarding their health, including the importance of cervical cancer screening.

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Declarations of interest

None.

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Appendix A. Supplementary material

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.srh.2019.02.001>.

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