Knowledge and perceptions of cervical cancer and healthcare in Vanuatu

Nina Fotinatos, Adrian Warmington, Todd Walker and Mark Pilbeam

Introduction

Health awareness and health prevention strategies in developing countries are dependent on the existing infrastructure and the level of commitment provided by the government. Access to affordable cervical cancer screening, treatment and preventative education are limited for many women in developing countries.¹⁻³ A lack of resources for scientifically trained staff and funding to support ongoing testing, treatment, follow-up procedures, and associated transport and specimens costs are key limitations in this area of preventative health.

There has been a three-fold increase in the rate of highgrade cervical abnormalities over a 10-year period between two Vanuatu pap smear studies.^{4,5} Similarly, Fotinatos et al. reported a high-grade cervical abnormality rate of 2.0% that was more than three times the rate reported by the Victorian Cervical Cancer Registry (0.62%) during the same time period.⁶ The main health centre in Vanuatu is located on Efate Island (Vila Central Hospital), with smaller medical facilities on the islands of Tanna, Ambae and Espiritu Santo (Luganville).³ Preventative cervical cancer disease programs in Vanuatu have primarily incorporated conventional pap smear screening, alternative low-resource programs and, more recently, a trial of the HPV vaccination program targeting 1,000 Ni-Vanuatu girls prior to commencement of sexual activity.⁷

The factors affecting the successful uptake of any future cervical screening program are multi-factorial and include the knowledge and perceptions of the target audience (18-65 years).^{1,2,8-10} Numerous studies in developing countries correlate a lack of cervical cancer knowledge with factors such as risk factors, disease progression, treatment and options.¹¹⁻¹⁵ Although samples of the Ni-Vanuatu community have been involved in limited screening programs between 1996 and 2008, there has been no research into the level of cervical health awareness in this population.

Abstract

- **Issue addressed:** There is increasing evidence of unacceptably high levels of cervical cancer abnormalities in Vanuatu. The purpose of this research was to determine cervical health awareness in local women from rural and urban environments.
- **Methods:** Women from hospitals, health clinics and small local villages were invited to participate in a health survey. This investigated health knowledge, current information sources and perceived limitations in accessing health information.
- **Results:** A total of 422 surveys were undertaken, a response rate of 93% in urban centres and 95% in rural areas. There was a direct relationship between the number of school years completed and awareness of cancer. Nurses, doctors and village health workers all played a vital role in providing women's health care information. General embarrassment and a lack of knowledge were the greatest limitations reported to affect the ability and confidence for women to investigate health concerns.
- **Conclusions:** Vanuatu women are poorly educated regarding health issues, particularly cervical cancer. Strategies to improve cervical cancer awareness may include travelling workshops, an active media campaign and the introduction of culturally sensitive education programs tailored to formal and non-formal environments. Programs should inform whole communities and health care professionals.

Key words: cervical cancer, womens health, knowledge, developing country.

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So What

This research highlights the complexity of cervical cancer prevention in Vanuatu. All prevention techniques and education programs must suit the existing infrastructure of this poorly resourced island nation to ensure its continual use and uptake.

Method

Approval for the study was gained from the Vanuatu Ministry of Health, Charles Sturt University Ethics Committee and chiefs who 'watched over' the individual villages.

Sampling

Four study environments (two rural and two urban) were identified for the purpose of this research. All Ni-Vanuatu (native) women 18-65 years of age were eligible to participate.

The urban participants were approached either at their homes or as patients of the various health facilities within Port Vila. Participants were recruited from the Vila Central Hospital and the Vanuatu Family Planning Association (n=196) and from home visits within Mele village (n=102). Approval was sought from the chief village and the directors of the Vila Central Hospital and Vanuatu Family Planning Association prior to approaching any participants.

A general open invitation was placed on the public health notice board within the rural environment of the Taloa-Nakie village. Women interested were invited to attend an information session, with 84 completing the survey. Chief approval was sought prior to entering this rural community. Participants were also recruited on a general visit to the Lenakel Hospital (Tanna Island) by the practising physician (n=40).

Survey

The survey was broken into three parts: knowledge (cancer, cervical cancer and prevention techniques); information sources and barriers; and demographics (age, years of schooling, language written, language spoken, employment). The five open questions explored: known of cancer types; understanding of the pap smear process; common information sources; perceived barriers to accessing information; and general comments regarding women's health in Vanuatu.

Surveys were undertaken in English and Bislama and participants chose the language more familiar to them. Bislama is the nation-wide language used to enable communication across the multiple dialects spoken over the island archipelago.



Where necessary, a fluent English-Bislama translator was used in the questioning and answering process.

Analyses

Open-ended questions were analysed using content analysis techniques. Closed-ended questions were analysed using *z*-test statistics (test between two means) with a significance level of p < 0.05.¹⁶

Results

There were a total of 422 English and Bislama surveys completed with a 93% response rate (298/318) in the two urban settings and a 95% response rate (124/130) in the two rural settings.

Cervical cancer awareness

The reported level of awareness of cancer in the population was 69.9%. Cancer and cervical cancer awareness for both the rural and urban sample population steadily rose across the 10-year age range intervals (18-60) and peaked in the 31-40 year age group. However, there was a 20% drop in awareness in the older age groups. The urban sample population had significantly more cancer awareness than the rural population (p<0.05). Pap smear awareness was low in this sample population (16.8%) and did not differ by level of education.

Sources of information

Figure 1 shows that nurses, doctors and village health workers (VHW) were the three most common health care information providers for the participants in this study. There was a significant difference (p < 0.05) between the numbers of women accessing information from VHWs in the rural population (40.3%) compared to the urban population (15.4%).

Barriers to information

Embarrassment (36.7%), lack of awareness (23.7%) and lack of education (22.0%) were the three major barriers to accessing women's health information (Figure 2). Embarrassment is a widespread issue within the society.

Conclusions

Our findings are consistent with other studies in developing countries demonstrating that minimal years of education and low socio-economic environments are often associated with low levels of women's health awareness.^{13,17-20} Access to existing facilities and well-informed health care professionals is generally more limited in rural than in urban environments.

Development of education programs suited to formal (primary, secondary and tertiary) and non-formal learning spaces (hospitals, health clinics, villages) are essential for increasing the awareness of cervical cancer, prevention techniques,



Figure 2: Major barriers to finding out about

treatment, follow-up and options for affected women and their families. Programs should incorporate a mixture of roleplaying demonstrations, culturally sensitive literature (Bislama and English) and radio campaigns. They should target the entire community to best inform not only women, but also the gate keepers of this society (chiefs and other leaders).

Education coupled with improvement in health care training is essential in a long-term strategy for improving women's health care in Vanuatu. In addition, embarrassment can only be overcome once cervical health area is no longer considered a "taboo" subject. This heavily relies on breaking down myths and providing accurate, culturally sensitive information to the majority of the population who have limited awareness and need coaching rather than preaching.

Long-term options best suited to Vanuatu may include a cheap reliable cytology/histology alternative (i.e. visual inspection with acetic acid) or an HPV immunisation program. All prevention techniques and education programs are, of course, only appropriate if adequate treatment facilities are made available to respond to screening outcomes and must suit the existing infrastructure of this poorly resourced island nation to ensure their continual use and uptake.

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