Why would a woman screen? Facilitators and barriers for women least likely to participate in cervical screening in Australia

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Background

The cervical screening test, which detects potential and existing high-risk lesions to prevent invasive cervical carcinomas, is provided at no cost to eligible women in Australia. Nonetheless, national cervical screening participation has been gradually declining from 63.7\% in 1998–1999 to approximately 55\%.\textsuperscript{1} An estimated 238 cervical cancer deaths were expected in 2020.\textsuperscript{2}

The uptake of cervical and breast cancer screening services internationally has been associated with multilevel factors related to the individual, (age, knowledge, attitude and perception, language, health status, ethnicity, migration background, education, socioeconomic status), health service (gender of treating doctor, distance to service, cost and availability of service) and local area (remoteness, socioeconomic status).\textsuperscript{3–5} Although barriers and facilitators to screening participation have been identified in international studies, there is limited evidence from Australian studies.

We aimed to gain insight into factors influencing cervical screening among women from an area characterised by disadvantage and ethnic diversity. The Western Sydney Local Health District human research ethics committee approved the study, (HREC: AU RED LNR/18/WMEAD/77) which was part of a larger project aimed at improving screening awareness and participation, coinciding with changes introduced 6 months earlier by the National Cervical Screening Program.

Methods

Trained staff approached women entering a supermarket located in a Western Sydney suburb characterised by high proportions of disadvantaged populations, migrant and Indigenous communities and low uptake of cancer screening services. Eligible participants were women aged 18 years
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Results

Over approximately 4 weeks, three interviewers surveyed 127 women in the vicinity of a local supermarket. Most respondents were in the 25–74 year age range (89%), with 8% aged 18–25. About two-fifths were born in Australia (36%) or New Zealand (5%), and when combined with women from Polynesia (Fiji, the Cook Islands and Samoa) accounted for almost half of all respondents. The second- and third-largest groups by country of birth were women from Maritime South-East Asia and Southern Asia (mainly from India and Pakistan).

Respondents’ most common reasons for delaying or avoiding (hereafter referred to as delaying) screening were embarrassment or discomfort (Table 1). A ‘lack of knowledge’, comprising responses of no knowledge of the cervical screening test and no knowledge about its purpose, was more common among younger women than those aged 50 years and older (‘lack of knowledge’: 30.9% vs 15.3%). Overall, the issue of lack of time ranked lower than the need for education (11% versus 14%).

Reassurance of no illness was given as a main reason to screen (expressed by 63.8% of respondents), irrespective of respondents’ country of birth or age group. Other reasons to screen were to ensure timely detection (37.8%) and being encouraged by one’s doctor/nurse (21.3%). Promotional material and telephone/mail reminders were less common reasons for undergoing screening, accounting for 5.4% of responses when combined.

Table 1. Cervical screening status, by respondent age group (N = 127)

| Screening status | Time since last screening test | Age range, years | Total | % of eligible women n = 119a |
|------------------|-------------------------------|------------------|-------|-----------------------------|
|                  | < 25                          | 25–34            | 35–49 | 50–64 | 65–74 | ≥75 |     |       |
| Current          | Within past 12 months         | 2                | 8     | 12    | 15    | 3   | 0   | 40    | 45.4 |
|                  | 12–24 months                  | 0                | 4     | 3     | 3     | 3   | 1   | 14    |      |
| Due              | About 2 years                 | 1                | 3     | 7     | 5     | 0   | 1   | 17    | 23.5 |
|                  | 2–3 years                     | 1                | 1     | 3     | 5     | 1   | 0   | 11    |      |
| Overdue          | 3–5 years                     | 0                | 1     | 3     | 3     | 0   | 0   | 7     | 31.1 |
|                  | >5 years                      | 0                | 0     | 5     | 5     | 1   | 0   | 11    |      |
|                  | Don’t know/never had test     | 6                | 6     | 2     | 4     | 1   | 0   | 19    |      |
| Subtotal         |                               | 10               | 23    | 35    | 40    | 9   | 2   | 119   | 100  |
| Ineligible       | Stopped screening/hysterectomy | 0                | 0     | 0     | 3     | 3   | 2   | 8     | n/a  |
| Total            |                               | 10               | 23    | 35    | 43    | 12  | 4   | 127   |      |

n/a = not applicable

a Defined as women who had not had a hysterectomy or had not stopped screening
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The time required to have a screen have been identified elsewhere as the stronger type of predictor of women's screening status. The association between emotional barriers and screening is consistent with previous studies examining different ages and screening status. Reassurance of no cervical cancer, early detection and a recommendation from the woman’s clinician were the most common reasons given for screening.

Notably, women lacked knowledge about the cervical screening test and its importance to their efforts to prevent cervical cancer, suggesting that inadequate knowledge is at least as strongly linked to under-screening as the historically well documented ‘lack of time’. Knowledge about screening guidelines is fundamental to participation but is evidently lacking for women who do not know when they should have their first screen and the purpose of screening, i.e., to detect pre-cancerous changes not cancer. Strategies for ongoing cervical screening education are particularly

### Table 2. Reasons for women delaying or undergoing a cervical screening test (N = 127)

| Reasons for delaying/avoiding screeninga | Frequency | Proportion of respondents, % | Proportion of all responses (frequency), % |
|----------------------------------------|-----------|-------------------------------|-------------------------------------------|
| Embarrassed                            | 49        | 38.6                          | 19.3                                      |
| Uncomfortable                         | 48        | 37.8                          | 18.9                                      |
| Afraid                                 | 33        | 26.0                          | 13.0                                      |
| Lack of knowledge:                    |           |                               |                                           |
| - Don’t know about the test           | 22        | 17.3                          | 8.7                                       |
| - Don’t know the importance           | 13        | 10.2                          | 5.1                                       |
| No time                               | 28        | 22.0                          | 11.0                                      |
| Don’t want to know if cancer          | 17        | 13.4                          | 6.7                                       |
| Cultural reasons                      | 15        | 11.8                          | 5.9                                       |
| Not a priority                        | 12        | 9.4                           | 4.7                                       |
| Lazy                                  | 10        | 7.9                           | 3.9                                       |
| No support with kids                  | 4         | 3.1                           | 1.6                                       |
| No female doctor                      | 3         | 2.4                           | 1.2                                       |
| Total                                 | 254       | 100                           |                                           |

| Reasons for undergoing screeninga     | Frequency | Proportion of respondents, % | Proportion of all responses (frequency), % |
|--------------------------------------|-----------|-------------------------------|-------------------------------------------|
| Reassurance                          | 81        | 63.8                          | 37.0                                      |
| Early detection                      | 48        | 37.8                          | 21.9                                      |
| Doctor/nurse encouragement           | 27        | 21.3                          | 12.3                                      |
| Family history of cancer             | 23        | 18.1                          | 10.5                                      |
| Friends/family encouragement         | 16        | 12.6                          | 7.3                                       |
| Be with/around for family            | 8         | 6.3                           | 3.7                                       |
| Saw a promotion                      | 6         | 4.7                           | 2.7                                       |
| Received an invitation                | 6         | 4.7                           | 2.7                                       |
| Symptoms                              | 4         | 3.1                           | 1.8                                       |
| Total                                | 219       | 100                           |                                           |

* Respondents could give more than one reason for delaying or participating in screening

Among women eligible for cervical screening (n = 119), 45% were on schedule (screened in the past 12–24 months) and 55% were due or late. In general, respondents who had never been tested (n = 19) were aware of cervical screening (n = 16).

**Discussion**

We undertook the survey in an area that has one of the lowest participation rates in the National Cervical Screening Program to identify local women's reasons for having or not having a screening test.

Women most commonly identified negative emotions and physical discomfort as reasons for delaying or not attending for a cervical screening test. Emotional (or psychological) barriers, namely embarrassment, discomfort and fear, were greater inhibitors than the practical barrier of lack of time; practical barriers such as
important in areas with growing migrant populations14,15 who are most likely to be unfamiliar with publicly funded accessible preventive health care.16 We took the opportunity to provide information about cervical screening and the new cervical screening test at the survey venue; in turn, women enquired about the rationale for the increased time interval between screens, and, albeit mostly overseas-born women, about the benefits of the cervical screening test.

Cervical screening participation is known to differ by locality and be strongly influenced by socioeconomic status.17 Our study was undertaken in a suburb where residents experience higher-than-average unemployment and lower-than-average median weekly personal income compared to the state.18 General practitioners have a central role19 in addressing practical facilitators – flexible appointment times20 and supportive21, female clinicians22,23 – as they encourage opportunistic screening24 in disadvantaged communities with strong migrant representation.23 Self-sampling can alleviate some emotional and practical barriers24 to ease the concentrated responsibility on general practitioners.

Researchers estimated that one in four women declined to participate in the survey, and less than 10% of the refusals were because of language difficulties. The 55% of respondents found to be due or late for a cervical screening test suggests either a slightly above average participation25 or that respondents provided what they believed to be a desired response, i.e., social desirability bias.26 The survey questions reflected no assumptions, with an early item questioning whether the respondent knew about cervical screening.

A larger sample size would have allowed investigation of barriers and facilitators by women’s characteristics, such as age group and region of birth – a factor that would provide the potential to investigate the role of culture in non-participation. However, tackling the inherent complexities of culture27 was beyond the scope of our study.

Conclusion

Efforts to ameliorate the seemingly immutable low uptake of cervical screening in disadvantaged and migrant communities must tackle emotional barriers, within a framework of sustainable educational strategies and supportive primary health care.

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Competing interests

None declared.

Author contributions

KL and HA conceived the study. All authors contributed to the drafting of the manuscript or revising it for intellectual content.

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