

S Twinn 程思雅
E Holroyd 賀雅琳
P Adab

The influence of extrinsic and intrinsic factors on uptake rates for cervical screening: a comparison of the perceptions of Hong Kong Chinese women and practitioners

Key Messages

1. Further training for practitioners in screening techniques, particularly in communication and interpersonal skills, is needed to minimise the discomfort and embarrassment experienced by women attending cervical cancer screening.
2. Women need knowledge and information about cervical cancer and its prevention to allow them to make informed choices about attending for cervical screening.
3. Practitioners need to understand the multifactorial nature of the decision-making processes women use to determine whether they attend for cervical screening.
4. A comprehensive, multi-disciplinary health promotion strategy is suggested to maximise women's knowledge and awareness of ways to prevent cervical cancer.
5. Opportunistic screening should be used to facilitate screening of irregularly and unscreened women.

Introduction

Despite the availability of cervical screening services, cervical cancer remains a significant cause of mortality and morbidity among Hong Kong Chinese women. Although little population-based data are available, surveys indicate screening uptake rates of approximately 59%.¹ This is low compared to countries such as the United Kingdom where rates of over 85% have been achieved. Evidence suggests that there are important differences in the perceptions of practitioners and women concerning the factors most likely to influence women's uptake of cervical screening.²

Aims and objectives

The aims of this study were to investigate the perceptions of Hong Kong Chinese women and practitioners about the influence of extrinsic factors (the organisation and delivery of the screening programme) and intrinsic factors (women's knowledge, beliefs, and attitudes about cervical cancer and screening) on the uptake of cervical screening, to develop a comprehensive database of cervical screening services in Hong Kong, and to investigate women's satisfaction with the current provision of screening services. Practitioner was defined as a medical practitioner in private practice or in a government or non-government service with the responsibility for providing cervical screening services for women.

Methods

This study was conducted from November 1998 to October 2000. A descriptive research design consisting of two phases was selected to achieve the aim. Phase I consisted of a self-administered questionnaire given to a total population of 1579 practitioners. A response rate of 384 (24%) was obtained. From these respondents a semi-structured face-to-face interview was held with a purposive sample of 28 practitioners. Phase II consisted of focus group interviews with women recruited from an earlier telephone survey involving 945 women aged between 25 and 59 years. From this sampling frame, 47 screened women participated in eight focus groups and seven unscreened women participated in two focus groups. Twenty semi-structured telephone interviews were later held with unscreened women who were unable or unwilling to attend a focus group.

Results and discussion

Profile of services

Data obtained from the practitioner survey were used to compile a comprehensive database of the cervical screening services available in Hong Kong. The data demonstrated the diversity of screening provision by different service providers. This diversity included the eligibility criteria for women recruited to the service, cost, consultation time, and methods of notification of results. A

Hong Kong Med J 2006;12 (Suppl 2):S19-21

The Nethersole School of Nursing, The Chinese University of Hong Kong
S Twinn, E Holroyd
Formerly of the Department of Community Medicine, The University of Hong Kong
P Adab

HSRF project number: 811008

Principal applicant and corresponding author:
Prof Sheila Twinn
The Nethersole School of Nursing
Esther Lee Building, Chung Chi College
The Chinese University of Hong Kong
Shatin, NT, Hong Kong SAR, China
Tel: (852) 2609 8163
Fax: (852) 2603 5269
E-mail: sftwinn@cuhk.edu.hk

total of 225 (66%) practitioners notified women of a normal result using either the telephone or by requesting their attendance at the clinic.

Similarities in perceptions of practitioners and women of factors influencing uptake rates

Using the data drawn from the practitioner survey and the qualitative interview data obtained from practitioners and women, five factors that both groups agreed influenced uptake rates for cervical screening were identified. These were women’s level of knowledge, women’s awareness of the need for the procedure, the cost of the smear, practitioner characteristics, and method used for notification of results. Women’s lack of knowledge about cervical cancer and screening was an important area of agreement in the data sets from practitioners and women. Indeed, the data from the semi-structured telephone interviews demonstrated that 15 of the 20 women had not heard about cervical screening and did not know that cervical cancer could be prevented. One woman commented:

I think disease is a thing that people can’t prevent. It is life. If your life is meant to have it, nothing can prevent it.

The cost of the screening procedure was consistently identified as a factor influencing women’s attendance patterns in all data sets. In the survey data, 151 (45%) of practitioners believed that cost influenced attendance. In the telephone semi-structured interviews, almost half of the women stated that cost influenced decisions about whether they would attend for screening. In addition, cost was a consistent subcategory emerging from the focus group data analysis of both screened and unscreened women.

Practitioner characteristics also emerged as a similarity in the perceptions of women and practitioners. These characteristics included gender as well as interpersonal and technical skills. A total of 216 (67%) practitioners felt that a female practitioner taking a smear would be encouraging and 59% felt that a male practitioner would be discouraging to attendance. Indeed, overall, practitioners perceived that women had a preference for a female practitioner. In addition, practitioners stated that women would prefer a doctor over a nurse as the smear taker. Although women were more likely to be neutral in their preference for a particular type of health professional, they clearly preferred a female practitioner as the smear taker. This is illustrated by the following comment from one unscreened woman:

If I choose to go for cervical screening I would definitely go to a female doctor, I currently have a female GP—she is very patient and a good listener, it would be easier, less embarrassing, many Hong Kong women prefer female doctors.

The qualitative data sets also demonstrated similarities in the perceptions of women and practitioners about the influence of embarrassment and discomfort on women’s attendance for cervical screening. Indeed, this was a

Table. Frequency of citation of risk factors associated with cervical cancer by practitioners

Risk factor	Practitioners (n=327)*
Reduce number of sexual partners	249 (75%)
Use of condoms	232 (70%)
Medical advice on disease and prevention	195 (58%)
Reduce smoking	168 (50%)
Reduce intake of carcinogenic food	84 (25%)
Reduce stress	48 (14%)
More exercise/personal hygiene and diet	37 (11%)
Reduce alcohol intake	24 (7%)
Take Chinese medicines	15 (4%)

* Not all participants answered this item

consistent finding emerging from the data on both screened and unscreened women. This finding was particularly important in influencing re-attendance patterns. These feelings are illustrated by the following quote:

I started going when my son was a few years old. Each time was a big struggle, I was really shy and felt really embarrassed. I felt deprived of any confidence every time I went and the feeling when I came out of the place was very hard to describe.... I tried going to XX but got cold feet at the door. It was just too difficult.... I couldn’t go in.

Interestingly, the category ‘embarrassment and discomfort’ was of less importance in the data from unscreened women, supporting findings from other studies of similar groups of women.^{3,4} It should be noted that although neither practitioners nor women considered embarrassment and discomfort the major reason for women not attending for screening, findings obtained from the qualitative data highlight the complexity of factors determining women’s attendance for cervical screening. Indeed, despite many screened women describing embarrassment as an intrinsic barrier, they appeared to manage these feelings and choose to attend for screening.

Differences in perceptions of practitioners and women of factors influencing uptake rates

The comparison of the data obtained from the practitioner survey and the qualitative data obtained from practitioners and women also identified perceived differences in factors influencing the uptake of screening. These differences included perception of risk factors, accessibility of services, and the screening interval. However, a major difference to emerge from the qualitative data sets was the perception of women’s ability to ask practitioners for advice and information. The data clearly demonstrated that women found it difficult to ask practitioners for advice whereas practitioners described how they expected women to ask for advice and information to increase their level of knowledge about cervical screening and prevention.

Differences were also demonstrated between practitioners and women about risk-reduction behaviours. As shown in the Table, reducing sexual partners and the use of condoms were the most frequently cited risk factors by

practitioners. The quantitative data obtained from the data sheets completed by the women attending focus groups demonstrated that 38 (75%) women identified more than three sexual partners as the greatest risk factor. However, none of the women cited the use of condoms as a method of risk reduction. This is noteworthy since condoms remain the most commonly used method of contraception in Hong Kong.² Interestingly, among the unscreened women, the majority identified not attending for cervical screening as the major risk factor.

Such findings from both screened and unscreened women, in particular those findings from unscreened women, once more raise questions about how women make decisions about whether to attend for cervical screening.

Women's satisfaction with the provision of services

The practitioner taking the smear was a major factor influencing women's satisfaction with service provision. Satisfaction with the practitioner was described in terms of gender, with the preference for female practitioners being cited. The professional skills of the practitioner also influenced women's perception of their satisfaction with the service. Importantly the practitioner's communication skills were identified as significant to women's level of satisfaction, supporting previous studies.⁵ Women particularly valued those services where practitioners took time to provide advice and education about topics such as the screening procedure, the risk factors associated with cervical cancer and attending for future smears.

Women cited the negative attitude of practitioners and administrative staff as an important factor influencing their dissatisfaction with the service. This dissatisfaction included both the willingness of the practitioner to provide information as well as the manner in which it was provided. One woman in the following quote exemplifies these findings:

If you ask me I'd say the doctor should answer any questions that I have, such as when I'll know the results. If the doctor says 'just wait!' as if... so what am I supposed to do? If she's so snappy at the first question how would I be able to ask the rest of the questions?

Women's perception of the organisation of the clinic appeared to influence their satisfaction with the smear procedure. The organisation of the clinic included the

reception women received from clinic staff on arrival at the clinic. In addition, women's perception of the accuracy of the smear result and the methods used to notify them of the results affected their level of satisfaction with the service.

Conclusions

Practitioners were of the opinion that if women were interested in knowing more about cervical cancer or screening they would ask for information. By contrast women consistently described the difficulties they encountered when asking practitioners for information about cervical screening and the prevention of cervical cancer. Women's views of the gender of the practitioner, the cost of the service, and the methods used for notification of the results of the cervical smear indicate a need for consideration of these factors in the structural organisation of screening services. Women's knowledge of risk factors associated with cervical cancer and the ability to assess their personal risks are important and should be the focus for further research. Embarrassment and discomfort associated with the screening procedure among this group of women demonstrates the importance skilled practitioners play in promoting attendance and indicate the importance of opportunistic screening.

Acknowledgements

This study was supported by the Health Services Research Fund (#811008). We would also like to thank the practitioners and women who so willingly gave their time to attend the interviews.

References

1. Report on the survey of family planning knowledge, attitude and practice in Hong Kong 1997. Hong Kong: Family Planning Association of Hong Kong; 1999.
2. Chavez LR, Hubbell FA, McMullin JM, Martinez RG, Mishra SI. Structure and meaning in models of breast and cervical cancer risk factors: a comparison of perceptions among Latinas, Anglo women, and physicians. *Med Anthropol Q* 1995;9:40-74.
3. Yu CK, Rymer J. Women's attitudes to and awareness of smear testing and cervical cancer. *Br J Fam Plann* 1998;23:127-33.
4. Summers A, Fullard B. Improving the coverage and quality of cervical screening: women's views. *J Public Health Med* 1995;17: 277-81.
5. Holroyd E, Twinn SF, Shiu AT. Chinese women's experiences and images of the Pap smear examination. *Cancer Nurs* 2001;24:68-75.