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The 'hows', 'whos', and 'whens' of screening: gynaecologists' perspectives on cervical cancer screening in urban Sweden

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Abstract

Population-based screening has contributed to decreased mortality in cervical cancer. However, the 'hows', 'whos' and 'whens' of screening still concern health professionals and policy makers. As part of a research project aimed at examining a population-based cervical cancer screening program (PCCSP) from different stakeholders' perspectives, the aim of this qualitative interview study was to elucidate the views of gynaecologists, working in both public and private settings, as stakeholders in the PCCSP in the county of Stockholm, Sweden. Results from semi structured interviews with 17 physicians indicate ambiguity in their descriptions of the purpose of both the PCCSP and smear testing in general, leading to different views about appropriate time intervals for Pap-smear testing. The gynaecologists also described experiencing a number of dilemmas related to information content and provision—both prior to screening and in relation to test results. In addition, the gynaecologists tended to differentiate morally through choice of language between women who participate in some form of screening and non-attendees of the PCCSP. There also appeared to be distinctions in how these gynaecologists conceptualised and discussed women receiving Pap-smears, dependent on whether they were regarded as within the category of 'my patients' (seen by the gynaecologist in a private or public setting) or 'the population' (women unknown to the gynaecologist). This study indicates the importance of comprehensively analysing the context of professionals' work when attempting to understand professional attitudes. Seeming disparities in attitudes as well as varying practices may be explained by the simultaneous existence of multiple value systems, applied to different patient populations, as found in this study.

Keywords: Women's health; Cervical cancer screening; Private/public practice; Gynaecologists; Sweden; Qualitative method

Background

The discovery by Papanicolau of a simple and relatively reliable screening method, commonly called Pap-smear, for detecting precursors and early, treatable forms of cervical cancer has revolutionalised diagnosis and treatment possibilities (Papanicolaou, Traut, & Marchetti, 1948). Since the 1960s, Western countries have followed one another in implementing screening programmes to reduce the incidence of cervical cancer (Gustafsson, Pontén, Bergström, & Adami, 1997; Levi, Lucchini, Negri, & la Vecchia, 1999). However, the 'hows', 'whos', and 'whens' of cervical cancer screening are still of concern to health professionals as well as policy makers. Practices and policies vary widely both between and within countries, as to how often screening should be undertaken, at what ages screening should

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commence and end, and who should perform the smear (Linos & Riza, 2000).

Commencing in the mid-1960s, Sweden was one of the first countries in Europe to initiate population based cervical cancer screening programs (PCCSP) and a 60% decrease in cervical cancer incidence was evidenced as of 1993 (Dillner, 2000). In comparison to other European Union countries, Sweden had the highest 3-year screening coverage (82%) in 1998, with coverage defined as the percentage of eligible women who had had a smear during the recommended screening interval of 3 years (van Ballegooijen et al., 2000). Despite this impressively high overall coverage, only 31% (National Board of Health and Welfare, 1998) of the smears registered in Sweden are taken within a PCCSP. Another 15% of all Pap-smears are accounted for by follow-up of pathological smears or smears taken due to specific symptoms; this percentage is an estimate and is included in the numbers for 'opportunistic' screening, which accounts for 69% of all registered smears (Dillner, 2000). More than 50% of smears performed yearly are thus taken outside, but parallel to the screening programme and without specific medical indication.

There is a higher number of private gynaecologists in Stockholm County, where the study presented here was performed, than in other Swedish counties. Many women in this region have an annual private gynaecologist appointment, which generally consists of a routine gynaecological examination including a Pap-smear. As a consequence, a survey of all Pap-smears registered in the Stockholm County in 1994 showed that a rather low proportion of the smears had been taken within the PCCSP, leaving 77% accounted for by 'opportunistic' screening. 'Opportunistic screening' is a pejorative term, implying negative cost-benefit and 'disobedience' on the part of gynaecologists, midwives, and GPs who perform these 'excess' smears, termed opportunistic because they do not improve total screening coverage for the eligible female population as a whole. Therefore, a clear statement was made by the National Board of Health and Welfare when in 1998 the new, updated screening recommendations for Sweden were issued, that: 'forceful attempts should be made to inform all parties involved that smear taking in excess of the recommended intervals is not motivated' (1998).

Nonetheless, there is currently a debate in Sweden about the purposes and effectiveness of PCCSP versus opportunistic screening. As many changes are occurring in the Swedish health care system, with a trend towards more 'consumer-oriented' care, it is important to investigate the dynamic between individual health and health on a population or societal level. This debate illustrates what might be fundamentally different perspectives of different stakeholders. Policy makers tend to argue that the goal of population-based screening is to reduce mortality rates in cervical cancer and not primarily to detect dysplasias, whereas clinicians and scientists seem concerned with the latter (Gustafsson et al., 1995; Dillner, 2000).

To further explore this controversy from the perspective of gynaecologists with a dual role in private practice (assumed to be consumer-oriented) as well as the national health care system (assumed to aim for balance between societal resources and needs), an interview study was designed. We aimed to describe the rationales and motives that influence the gynaecologists' practices concerning Pap-smear testing in both settings.

Methods

This sub-study is part of a larger research project 'Between sickness and health: A multidisciplinary study of professional and lay participants in a cervical cancer screening programme', examining the PCCSP in the Stockholm region from the perspectives of different stakeholders (Tishelman et al., 1999). The theoretical and methodological springboard for the project was Guba and Lincoln's 'Fourth Generation Evaluation' (1989) in which the authors argued the need for new methods of evaluation aiming to give voice to 'stakeholders' of different perspectives. Guba and Lincoln criticised traditional evaluation for often allowing some perspectives to be viewed as more legitimate than others, thus empowering some stakeholders by recognising their experiences, while disenfranchising others. They therefore recommend investigation of how different understandings are constructed in interaction with the contexts in which they develop.

In the research project from which this study derives, we have examined the perspectives of a variety of lay and professional stakeholders in PCCSP through a series of sub-studies. The other stakeholders investigated include *women*, who do or by active choice do not participate in the screening programme (Forss et al., 2001; Widmark, Lagerlund, & Tishelman, in preparation), *women* who receive *abnormal smear* results (Tishelman, Lundgren, Skald, Wilde, & Törnberg, 2002; Forss, Tishelman, Widmark, & Sachs, submitted for publication), *cyto-diagnosticians* who interpret the Pap-smears in cytology laboratories (ongoing study), the *midwives* who perform the smears (Widmark et al., 1998; Lundgren et al., 2000). An epidemiological study (Rodvall, Kemetli, Tishelman, & Törnberg, in preparation) attempts to place these stakeholder perspectives in relation to factors influencing screening attendance.

Ethical approval was granted by the Regional Ethics Committee prior to initiation of the study.

The setting: cervical cancer screening in Stockholm County

The invitation to screening is non-selective throughout Sweden, based on registry data of all inhabitants. The population basis for screening reflects one of the dominant principles in the Swedish health care system, i.e. equal access to care (Calltorp, 1989; Hollingsworth, Hage, & Hanneman, 1990; Johansson, 1991). Most health care, including preventive intervention programmes, is still provided under the auspices of the national health care system and financed by a combination of local income tax, national health insurance and government subsidies, along with fee-for-service payment, making it largely subject to government control.

In the greater Stockholm area the PCCSP is run by the Stockholm-Gotland Oncologic Centre. Women are invited to cost free Pap-smears at regular intervals from age 23 to 60. Eligible women, excluding those who have a smear registered within 18 months in any morphology database in the county are invited by a personal letter to a defined antenatal health clinic (ANHC) with a fixed appointment time and information about the Pap-test and its purpose.

The Pap-smears are performed by nurse-midwives at the 61 ANHCs now involved in the PCCSP in the Stockholm region, without further gynaecological examination. All screened women with 'normal' smears receive the results of the Pap-smear by means of a standardised letter. In contrast, women with any level of 'abnormal' morphology are referred directly to one of the 25 gynaecological outpatient clinics in the county, for information on the test result and further assessment. The total cost per smear within the PCCSP is approximately 150 SEK (15 €), including costs for smear sampling, analysis and administration.

Study participants

Gynaecologists are stakeholders within the PCCSP as specialist physicians at clinics and hospitals receiving referrals from the ANHCs for follow-up and treatment of women with pathological smears. In addition to working in public settings, gynaecologists can also have part-time private practices, with or without reimbursement through public monies. At the time of the study there were 22 registered gynaecologists in the Stockholm County with part-time private practices reimbursed by the national health insurance system in addition to practicing in the public health care system. Two were working abroad and three were not possible to locate. The remaining 17 all agreed to participate in the interview study. These 4 women and 13 men ranged in age from their early 40s to mid-60s with the majority in their mid-50s. The population was purposely chosen to investigate the reasoning guiding the same physicians when working as a private practitioner versus when working in the public health care sector.

Data collection and analysis

A semi-structured interview guide was used. Topics included how the gynaecologists describe, explain and reason about the use of Pap-smears in the PCCSP and in individual use, how they describe and understand their professional role as gynaecologist (and the role of other professionals) relevant to screening; perspectives on risk factors and causes of cervical cancer; views on individual, professional and societal consequences of screening; beliefs about inclusion and follow-up of screening; as well as views on patient information and needs. The interviews were conducted by the principal investigator (C.T.) in a conversational manner, lasting between 30 and 60 min. The gynaecologists chose the time and place to be interviewed and all but one permitted the interview to be audio taped.

The tape-recorded interviews were transcribed verbatim and then proofread by the principal investigator. A preliminary analysis was conducted by a research team consisting of C.T., C.W., and two other nurse-researchers. A physician-researcher (A.S.), not previously affiliated with the project, was then contacted to perform in-depth analysis of the interviews in order to complement the research team with another perspective. Sixteen interviews were analysed initially while the 17th interview was used to validate the analysis.

A computer software (NUD*IST®, 1997) was used as an aid to sort the 16 interview texts into themes, and later designate the hierarchical order of categories (Malterud, 1996). At first, different themes were identified in the texts. The next step involved designation of text units into identified themes, examining one interview at a time and completing this stage for all interviews before moving on to the next theme. This procedure continued until all original interview text units had been designated to a theme.

The next step was to read through the themes and clarify their substance, i.e. to minimise overlapping between themes by delineating their contents more clearly. When all themes had thus been established, A.S. compiled a summary for each. This decontextualisation means that all themes can be examined for their meaning and content apart from the original interview data.

Analysis continued with recontextualisation, which involved examining the final themes in their original contexts (Malterud, 1996), a procedure that in this case also included reading through the 17th interview and examining if themes resulting from the previous analysis provided meaningful coding of the whole text. Final consensus regarding the themes and overriding headings was reached during a two-day team workshop. The

results were also discussed for validation with the third author who had not participated in the detailed analysis procedure, in light of findings from other studies and from other stakeholder perspectives within the research project.

Results

Although cervical cancer screening seemed to engage most of the interviewees as part of their daily work, there was a notable lack of agreement on how screening should be provided. How often smears should be taken, who should do the screening, whether efforts should be made to persuade women to participate in the PCCSP, and how test results should be conveyed, were examples of issues with clear differences in perspectives among the gynaecologists interviewed.

The themes and their contents are summarised in Table 1. We describe the results more comprehensively under the headings that were particularly salient in the material. For each heading we provide the corresponding original themes, as indicated in Table 1.

The theory and ideology of screening (from themes 1, 3, 4 and 6)

Gynaecologists expressed clear trust in the Pap-smear as a feasible way to detect precursors of cervical cancer, voicing their conviction that the decrease in incidence of and mortality from cervical cancer is due to effective population-based screening. Several interviewees also discussed the prospect of finding better screening methods, such as typing the genome of the causative agent Human Papilloma Virus from atypical cells found in smears.

Inclusiveness of the screening programme was an important issue, both for efficiency in discovering cancer precursors, but also discussed as an ideological consideration: solidarity in screening meant that policy makers offer accessibility and all-inclusiveness, which in turn involves a moral obligation for eligible women to attend.

The manner in which these gynaecologists discussed the theory and ideology of screening gave evidence of a moral discourse. The words used in association with women who do and do not attend the screening display how morally charged gynaecologists identified two groups of women: one that attends the PCCSP and/or visits a private gynaecologist, and another, 'at risk' population of women, who do not attend any screening. Screening attenders were described as more '*educated*', better informed, '*concerned about their health*', and even as over-consuming health services.

> Yeah, well the old truth is that those who do not need to come, do, whereas those who should come, don't. There is something to that (Male gynaecologist, age late-50s).

Non-attenders were described in generally pejorative terms, as '*not interested*', '*taking life easy*', as being over represented by immigrant women from '*undeveloped*' countries and women '*not believing in health exam stuff*', and therefore at more risk.

> It's a risk factor not to be sensible enough to comply with this follow-up [PCCSP]. And then... they wreck a lot of things by ignorance and lots of bad education and maybe low intelligence which all also have to do with the socially negative factors of smoking and addiction (…) and all that (Male gynaecologist, age mid-50s).

The same gynaecologist described his own private patients as being women who '*take care of themselves*' and '*are orderly*'.

> Those who come to my private practice are extremely proper, with very few exceptions, so they are middle-class, well-educated ladies who want to go and have a check-up every year or every other year (Male gynaecologist, age mid-50s).

As a notable exception from viewing attending screening as a moral obligation, two gynaecologists (a male and a female) stated that women who do not wish to attend should have the right to that decision and should not be '*chased*':

> I think (…) if you don't hear from them [non-responders] it must really be every woman's right not to want to attend mammography and cervical screening and so on, but seek help if something is not right (Female gynaecologist, age mid-60s).

Cancer detection or health exam? (from themes 2, 6, 9, and 12)

Although all the gynaecologists identified the purposes of the PCCSP as finding treatable precursors of cervical cancer or occasionally full-blown cancers, many of them referred to the screening programme as the '*health exam*'. This may be understandable given that at the time of interview and until 1998 the invitation letter to the PCCSP referred to a '*gynaecological health examination*'. Most of the interviewed physicians said they thought women viewed the screening as a gynaecological check-up, just to be assured that they were healthy, and to '*get a receipt that everything is fine*'. They expressed concern that in the PCCSP there was no '*mental preparation*' on the part of the women involved to receive positive test-results.

Table 1
Emerging themes in the qualitative analysis

Themes	
1. To screen or not to screen	The effect of screening for cervical cancer Trust in screening as a method of cancer prevention Screening and ideology—available screening for all
2. Cancer detection or health exam	Psychological security—true or false? A moral obligation? Gynaecological health exam—information issues
3. Non-attenders	Characteristics and reasons for non-attending Compliance—passive obedience or active choice of eligible women? The elderly at-risk woman
4. Gynaecologists' views on women	Women's health-related knowledge—sources and validity Personal views on women
5. Recommendations versus practice	To say no (when women demand a smear) Three ways—follow new guidelines, do as always have, and integrate guidelines in a practicable way Screening recommendations imposed from 'above'
6. Moralising doctors	General ethics of screening policies—do we really know what we are doing in the lack of randomised controlled trials? Preventive gynaecology—the role of gynaecologists Inequity in health care—unequal use of health services Sex in society—changing values and practices
7. Health economy	Health economy and the responsibility of the individual physician for health care costs
8. Subjectivity in smears	Subjectivity in cytologists' rating of cell atypias Subjectivity in gynaecologists' choice of method to remedy atypias
9. Patient–doctor relationship	Medical information in a changing health care climate The patient as a client Continuity of patient–doctor relationship Difficult patients—'more than what is normal'
10. Metaphors of cancer	Metaphors of cervical cancer Metaphors of cell atypias
11. Cervix and pregnancy	Effects of conisation on pregnancy outcomes Women's fears of treatment effects on the possibility of becoming pregnant and pregnancy outcomes
12. Test results and anxiety	How to handle test-results—an ideal time frame Individual or general letters for informing about results Women's anxiety as they receive pathological answers
13. The role of the gynaecologist	The role of the gynaecologist in cervical screening The role of the gynaecologist as opposed to midwives The role of the gynaecologist as opposed to GPs
14. Not to miss out	The fear of leaving a cancer or atypia unrecognised Notable cases where things went wrong

> Those who have been at the health exam [PCCSP] generally forget about it the day after and they don't think of it anymore (Male gynaecologist, age early 50s).

On the other hand, common designations for the Pap-smear such as '*cell-test*' or '*cancer-test*' were described as having specific implications for what the test is believed to do and what should be expected of it.

> But I know how differently this all can be perceived, how you name it [PCCSP]—gynaecological health exam or if it is (pauses) …'we'll check to see if I have cancer'. There's a difference. 'We are going to check if you're healthy or see if you have cancer'. I know how my wife felt about it, she was at one of these health exams (…) and out came a large, decisive woman who asked: 'Who's here to get a cancer-test', and everyone kind of felt uneasy and startled… 'Is it we who can have cancer', you know (Male gynaecologist, age late-40s).

Thus, on one hand, concise and objective information in the invitation letter to the PCCSP was sought in order to help women prepare for possible positive test-results. On the other hand, some gynaecologists expressed concern that women should '*not be scared away*' from screening by information about cancer. The following comment is typical of the ambivalence several physicians expressed as to what should be conveyed to the women invited to PCCSP:

> So you need not too little and not too much intimidation, or what should I say, propaganda, because this is what we are screening for, but we also know we are going to find very few. So we can't really scare the large majority because we will find something in a small group. That is not appropriate in health examinations. And anyway, the patients know what we're after (Female gynaecologist, age mid-50s).

It is interesting to note that two simultaneous conclusions are drawn in the quote above: one is that the Pap-smear constitutes a health exam, the other an assumption that silent knowledge exists among the female population about the goal of screening.

An important aspect of Pap-smear follow-up and treatment discussed, was ways of conveying information about test-results to women. All the gynaecologists interviewed spontaneously expressed awareness of the anxiety that both the prospect of and an actual positive test result could cause. However, they described distinct differences in beliefs about how information on results should be conveyed, depending on whether private patients or women from the PCCSP were concerned. While women in the PCCSP with negative test results are informed by standardised letters in Stockholm County, most gynaecologists reported that they informed their private patients about negative results through '*a contract*', telling them if they had not heard anything after two weeks, everything was '*fine*'. Patients requesting explicit notification about a negative test result were described as having special needs:

> But then you always have some individual patients where you know you might as well call her or write a letter as soon as you get the [negative] smear results because she is more worried than what's normal (Female gynaecologist, age mid-60s).

The same gynaecologist, along with several others also argued that sending information letters about negative smear results to women in the PCCSP could jeopardise the positive cost-benefit of screening:

> If you make too much fuss around it, it will cost too much (…) and destroy the whole screening because of all the pampering around it all (…) There has to be a certain flow and they [the women] have to accept the existing conditions for the health exam (Female gynaecologist, age mid-60s).

Differences in gynaecologists' descriptions of conveying information on results was not as evident for positive smears, as most gynaecologists expressed the need to either be available per telephone for women with questions or write them a personal letter to further explain implications of the smear results, irrespective if women were referred to them from the PCCSP or were their own private patients. It thus was the physicians' expressed attitudes about conveying negative test results, the implicit and explicit information given, and the described emphasis on the individual woman's anxiety that differentiated patients in the private setting from those from the PCCSP.

Who should screen? (from themes 5 and 13)

There was broad agreement among the gynaecologists interviewed that the technical quality of smears taken by midwives in ANHCs working with PCCSP was satisfactory and equal to those taken by gynaecologists. Three described some type of potential benefit that contact with a midwife might bring for women attending the PCCSP—in terms of midwives' ability to provide '*psychological care*', to be '*less intrusive*' and generally '*nicer*' than a contact with a doctor, and possibly contributing to increased accessibility of the screening programme:

> If you do it [PCCSP] at the ANHCs, then you've gone out to people so they [the eligible women] won't feel reluctant to have to go to a hospital and maybe wait and feel as if they were sick or so (Male gynaecologist, age late-50s).

However, all the gynaecologists emphasised their view that midwives should only deal with the mechanical part of the screening and should have no role in anything pathological, which is the '*specialist's domain*'. By the same token, several gynaecologists questioned the cost-effectiveness of midwives performing the Pap-smear, relating it to the need for a physician consultation at any suspicion of pathology. They also claimed there was little difference for time-costs of midwives compared to gynaecologists.

An overriding concern, expressed spontaneously by most of the interviewees, was that women attending the PCCSP might feel they had taken part in a full gynaecological health examination, including palpation of the ovaries and assessment of other possible gynaecological pathologies, whereas only a Pap-smear had been taken. Therefore, almost all gynaecologists stated that it would be better for the individual woman to see a gynaecologist and be able to have a complete assessment and discuss other related issues, such as menstruation, pregnancy, or menopause. The following quotation provides an example of this kind of reasoning:

> Certainly, midwives are perfect in the role of quickly and professionally taking a smear (…) They're used to being in that part of the body, so to speak, and taking a smear and doing it correctly so you get the best material, it isn't hard to learn and of course midwives become skilled at it. But then, like I said, midwives cannot be expected to do all the other things (…) [As a woman] you cannot be assured that everything is all right in the abdomen, because midwives don't have the competence to examine that (…) and so they [the women] go home and still have their ovarian cancer without having checked it out (Male gynaecologist, age late-50s).

GPs were generally described as not having competency to take Pap-smears, although three gynaecologists did state that GPs could perform the smear adequately enough. Midwives were generally felt to be more competent than GPs in the technical aspects of taking Pap-smears, as long as they referred women to gynaecologists when necessary.

How often? (from themes 5, 7, 9, and 14)

All but one of the gynaecologists were aware of the national screening recommendations to have a Pap-smear every three years. However, most referred to screening guidelines as something imposed from above. Only two interviewees described the guidelines as issued as a result of consensus among a group of specially interested gynaecologist colleagues. Others referred to '*health policies*', the '*Ministry of Health*', '*the experts*', or most often just '*they*', as being responsible for the recommendations.

At the same time, all the gynaecologists showed awareness of economic aspects associated with screening. Several of them implied that one of the main reasons for increasing screening intervals was, indeed, economic calculations showing a negative cost-benefit balance of taking yearly smears.

> Of course there are some economic aspects to this as well. How much does this cost and how much do you gain, if you can save a woman, but maybe that costs a 100 million so (pauses). And if you calculate then maybe you just—that this is not worth it, we have to sacrifice this woman because we can't afford a 100 million (Male gynaecologist, age late-40s).

Several gynaecologists approximated the cost of individual smears to 75 SEK (7.5 €). This estimate, although inaccurate (as it would only cover the cost for cytological analysis), was used to motivate two diametrically opposed practices: those who complied with recommended intervals expressed the importance of savings made, whereas those who did not always comply cited the relatively low cost of individual smears in explanation.

Overall, a common practice seemed to be to have an annual appointment with private patients, where taking a Pap-smear was often part of the consultation. However, there seemed to be three rather different ways of reasoning when it came to ways of complying with screening guidelines. A minority of physicians described a practice that could be categorised as 'doing as I always have'. The remainder could be equally distributed into two further categories: 'following new guidelines rather strictly' and 'trying to integrate new guidelines into practice through compromise'.

Within the category of 'doing as I always have', three gynaecologists (all male) described continuing to take yearly smears, as they always had. One physician in this group was unaware of any recommendations whatsoever, expressing the conviction that any smear done would contribute to discovering cancer precursors. He therefore '*screened*' all private patients, irrespective of their reason for consultation. Another explained his practices by referring to routines that applied during his early training period in a large hospital, while the third referred to the risk for jeopardising his confidential relationship with his patients by changing routines.

The gynaecologists categorised as 'following new guidelines rather strictly' (equal number of women and men) described a conviction that there were solid medical and economic grounds for smear interval recommendations. They stated that their ambition was to take smears less often than their earlier habit of once annually. Adhering to updated guidelines with little

further discussion was expressed in its most extreme form as:

> I don't think anything about that [smear intervals] myself. I act according to what is recommended by the experts (Male gynaecologist, age early 50s).

Two physicians in this group, who explained that in their private practices they strictly adhered to modified guidelines, described concern that their patients might go elsewhere to have the smear taken. These physicians emphasised that this did not influence their decision not to take smears they judged unmotivated. Other physicians, also categorised as 'following new guidelines rather strictly' stated that they were willing to occasionally take a smear more often than recommended if the woman so desired despite explanation. Reasons given for making exceptions included psychological concerns of the woman, for example due to gynaecological cancer in the close family, or limited time available for each patient. The following statement typifies the process of acceptance and effort to comply with recommended screening intervals among physicians we have categorised as 'following new guidelines rather strictly':

> I'll sit down and explain all this [reasons for new screening intervals] to them [patients]. It sounds complicated and of course I sometimes think 'I don't have the energy, oh no, not again', and I'll just take that bloody smear (…) but I think it is important that as a gynaecologist you accept the screening, the intervals and don't just take smears because women want it done and waste a lot of money on that (Female gynaecologist, age early 50s).

In the category we call 'trying to integrate new guidelines into practice through compromise', the gynaecologists (both sexes) described themselves as continuously negotiating to adapt updated recommendations to their own routines. They were aware of existing guidelines and were more or less convinced of the medical correctness of increasing intervals between Pap-smears, although several emphasised the low cost, simplicity and safeness of taking a smear.

These doctors described their ambition to comply with guidelines, but different barriers, such as losing women's confidence and risk for unsatisfied '*clients*' in private practice, were described. Professionals in this group said they wanted to see their patients for a yearly gynaecological examination; an interval of three years, as practiced in the PCCSP, was perceived as far too long:

> For most of them going privately, it's a bit too much with three years between each visit, you loose the continuity, so there's psychology to it (Male gynaecologist, age mid-50s).

Having the patients '*up in the chair*' at these annual appointments was, in turn, described as easily leading to patients' expectations that a smear be taken. Several physicians expressed the belief that women would not understand and appreciate that a test that had been part of their routine gynaecological check-up for years was no longer required: they described feeling a personal responsibility for '*having educated a whole generation of women to see a gynaecologist yearly*'. Nonetheless, gynaecologists categorised as 'trying to integrate new guidelines into practice through compromise' did describe efforts to adapt to new routines:

> I say that 'now we have new knowledge and you can postpone this [the smear]. You don't have to come every year, say you come every other year' (…) and then I can try to extend that interval slowly as they see that this information I give them coincides with what their girlfriends say and what they read in the papers and so on (Male gynaecologist, age mid-50s).

An important aspect of these gynaecologists' expressed reluctance to negotiate taking the Pap-smear with women who explicitly asked for it, was that patients seen in private practices were regarded as '*clients*' with a right to have their wishes fulfilled:

> And you can say that if the patient pays herself then she has to have the right to decide what she wants to have done. Right, since then it doesn't have to do with public money anymore. So then if they say 'I want to have this smear because it makes me feel more secure', well then I think you have to be allowed to do it (Male gynaecologist, age mid-50s).

A salient issue for several gynaecologists, irrespective of which of the above categories best described their practices, seemed to be the risk of making a medical mistake. This could comprise missing the diagnosis of a fast-growing cancer because of having said no to a smear requested by a woman or being restrictive with smears with women who have '*risk-behaviour*'.

> Yes, it's if you have a person who is a risk-group. If you make the judgement that she has had that kind of a sex-life and has had many partners and is a chain-smoker, that she is a risk population, then, then if that gynaecologist makes the judgement that 'I want to check her and take a smear monthly', that's almost wild screening (…) because screening is normally population-based (Female gynaecologist, age mid-60s).

The above may indicate a dilemma experienced by the physicians in attempting to maintain a population-based perspective while caring for specific individuals. Evidence of this was found, for example, in use of expressions like '*she is a risk population*' even by those

gynaecologists who seemed well initiated and in agreement with the purposes of the PCCSP.

Discussion

This qualitative interview study of 17 gynaecologists, who were active both in public as well as private practice, indicates a number of points of interest, for example distinctions in how these gynaecologists conceptualise and discuss women receiving Pap-smears, depending on whether they are seen as 'my patients' or 'the population'. In addition, we found notable ambiguity in the gynaecologists' descriptions of the purpose of both the PCCSP and smear testing in general, one consequence of which was different views about appropriate time intervals for Pap-smear testing. They also described experiencing a number of dilemmas related to information content and provision—both prior to screening and in relation to test results. Issues about definition of professional domain were also salient in the interviews.

The population of gynaecologists was purposively chosen to represent new dilemmas and trends in the Swedish health care system, as private health care alternatives are increasingly more common (Whitehead, Gustavsson, & Diderichsen, 1997; Andersen, Smedby, & Vågerö, 2001). However, when this study was conducted, the rules were in the process of changing to be somewhat more restrictive about public reimbursement for private practice and the consequences for gynaecologists remain unclear. While we have identified a very delimited population of gynaecologists for this study (those with both private and public engagements in Stockholm County), we have had a high level of participation well representative of this group. Previous studies have established that compliance with cancer screening guidelines is rather poor among physicians (Clasen, Vernon, Mullen, & Jackson, 1994), and repeated interventions aiming to increase cervical cancer screening coverage have had varying results (Klassen, Hall, Bowie, & Weisman, 2000; Twinn & Cheng, 2000). Due to the lack of prior knowledge in this area, we chose to use an explorative, qualitative approach implemented by a multi-professional research group.

The dual value system of 'my patients' versus 'the population'

One assumption we wanted to investigate was if physicians might differentiate in their reasoning between patients seen in public and in private practice. However this was not the most apparent division. Instead, two different patient populations seemed to exist for the gynaecologists; those women participating in the PCCSP—'the population' who are anonymous for these gynaecologists, and the women they encounter directly in either their public or private practices—'my patients'. The distinction between women seen as 'patients' in public health care and those described as 'clients' in private practice was not as great as the distinction between the unknown women attending the PCCSP and the individuals encountered directly. Many of the seeming disparities between different gynaecologists' views, could thus be explained by examining which of these two categories of women they were referring to in their comments.

It was clear that these physicians' contacts with 'my patients' were relationally oriented, with continuity and mutual trust described as crucial components. More room was allowed for individual needs and less attention was described as given to cost-benefit analyses. This was particularly evident in discussions of private practices, where the woman is described as a client with wishes that must be fulfilled. Lack of compliance with these desires was coupled with an experience of professional risk—described in part as risk for poor practice, including missing medical conditions demanding treatment as well as poor psychosocial care. Lack of compliance with women's desires was also associated with possibility of their lack of satisfaction, which at its most extreme might lead them to choose a different practitioner—a risk which we interpret as implying economic consequences for private practice.

The gynaecologists' focus on relational aspects has support in other research on cervical cancer screening. Several researchers examining women's perceptions of positive smear results have highlighted the importance of quick, adequate and one-to-one information by a professional about positive smear results as a means of decreasing anxiety and distress (Somerset & Peters, 1998; Björk & Hagström, 2001). Whereas socio-economic status and sexual risk behaviour did not appear to affect screening attendance in one Swedish study (Eaker, Adami, & Sparén, 2001), it was found that women were more likely to have a smear done within the recommended screening interval if they saw the same gynaecologist regularly, whereas seeing different gynaecologists reduced the likelihood of this. Continuity in the relationship with a professional and the context of information thus seems an important aspect in relation to Pap-smear testing in general (Twinn & Cheng, 2000; Forss, Tishelman et al., submitted for publication).

Another possible consequence of the distinction between 'my patients' and 'the population' can be seen in a tendency to morally differentiate through choice of language. The physicians tended to refer to 'my patients' in positive terms, describing them as well-educated, intelligent and proper 'ladies' who assumed a moral obligation to care for themselves and their health. Non-attendees at screening were often discussed in relatively degrading terms, seen as irresponsible and showing a

lack of solidarity with both the generous screening provision and societal norms of responsible behaviour. A difference in language use was even found in regard to women with normal results from screening versus a smear taken through private practice. Several physicians described routine information about negative test results through PCCSP in terms implying 'babying' and jeopardizing cost-effectiveness, rather than as a self-evident right for these women. On the other hand, once women were conceived of as 'patients'/'clients' with direct contact, i.e. after a positive or unclear test result, another value system, with more attention to individual needs, was put into play. Again, this was the case for women met in both public and private practice.

Purpose of screening in theory and practice

The gynaecologists' descriptions of the theoretical purpose of screening and descriptions of their practices were not congruent. While the majority described the purpose of screening in terms similar to policy descriptions, they were more ambiguous about how this population-directed intervention could be related to individuals in their actual practice. This ambiguity took several forms. Discussion about the cost of each Pap-smear, for example, leading to either a position of 'take the opportunity to take a Pap-smear, whenever it appears' to more restrictive use based on existing recommendations, were both motivated by individual interpretations of what a cost-benefit analysis involves.

Another symbol of lack of clarity about the goals of the PCCSP was a lack of consistency in the terminology used to describe screening. These specialist physicians tended to switch from describing screening as a population-based intervention directed specifically at detecting precursors to cervical cancer, to calling Pap-smear testing conducted through the screening program a 'gynaecological health examination'. It should be remembered that this term was also used in the letter of invitation to the PCCSP sent to all eligible women at this time point, but was also criticized as inappropriate, often by the same gynaecologist who him/herself later used the term. This may indicate the dilemma experienced by the physicians as they attempted to maintain a population-based perspective while caring for specific individuals.

Dilemmas in information provision

The use of the term 'gynaecological health examination' mentioned above, can also be related to some of the difficulties the gynaecologists described in relation to information provision. We have noted in some detail in the presentation of the results, how these physicians tried to negotiate between adequate information about the 'health examination' and its results without raising undue fear about cancer risk. Previous studies of other stakeholder perspectives in PCCSP shed light on the same issue. In an interview study conducted with midwives as stakeholders (Lundgren et al., 2000), we found descriptions of behaviour similar to that of these gynaecologists. The midwives described tending to avoid using all words associated with cancer, as well as avoiding addressing the distinctions between different grades of dysplasia, or distinctions between cervical cancer and cancer in-situ. Our interpretation was that the midwives experienced little professional guidance in discussing cancer-related issues with women attending the screening program, and therefore appear to rely on personal knowledge, values and experience instead. The gynaecologists' descriptions of similar reluctance leads us to question if this behaviour is really due to lack of familiarity with cancer, or if it more strongly reflects an ethical 'beneficence', that is, the desire to do good and avoid doing harm. There is a risk that this expression of beneficence is somewhat misguided, since we have also found in a previous study of 'healthy women' attending the PCCSP in Stockholm that in 55 of the 63 interviews analysed, the woman interviewed specifically alluded to terms related to cancer in some manner when motivating their attendance at the screening program (Lundgren et al., 2000; Tishelman, Widmark, Lundgren, & Forss, 2000).

Another assumption made by the gynaecologists was that women might already have adequate information about the PCCSP and the purpose of a Pap-smear. Again, a previous study within this project from the perspective of lay women indicates a variety of ways of understanding PCCSP, with only one of four manners of lay reasoning consistent with the biomedical perspective underlying screening (Forss et al., 2001).

Professional domain

The extent and limits of their professional domain was discussed by the gynaecologists interviewed. This in part reflected expressions of concern about the well-being of the women involved who might believe that participation in the PCCSP is equivalent with a comprehensive gynaecological health examination. It was evident that these gynaecologists perceived themselves as the only group of professionals with the expertise and competence needed to provide a complete gynaecological check-up for their clients, including a Pap-smear, performance of a pelvic examination and discussion of reproductive health issues. It appeared that they therefore defended their domain from 'intrusion' by other health professionals such as nurse-midwives (through the PCCSP) and GPs. Many describe the domain of nurse-midwives as qualitatively similar to that of gynaecologists, but more limited. The midwives were described as able to adequately take the smear

mechanically in the screening program, but as lacking the expertise and knowledge-base to advise women on numerous reproductive health issues, particularly those deemed as pathological or potentially pathological. It was clear from the previous studies conducted with nurse-midwives that they are not altogether in agreement with this definition (Widmark et al., 1998; Lundgren et al., 2000). Whether the difference in views on professional domain benefits the care-seeking women is questionable.

Conclusion

There is evidence that cervical cancer screening programmes have contributed to decreased incidence of mortality and morbidity in cervical cancer. There is, thus, little doubt that all women in an eligible population should have the possibility of participating in screening. Nonetheless, the forms for the screening programme should be continuously reviewed.

One important ongoing discussion is about the purpose of screening. Policy makers' goals of reducing cervical cancer mortality seem not to be completely congruent with the goals of gynaecologists who want to provide comprehensive gynaecological care for their individual patients. Another issue is the lower pick-up rate of organised versus opportunistic screening, once again reflecting the differential concerns of professional and lay stakeholders as well as policy makers.

Other aspects, such as content and timing of information about Pap-smears, the person performing the smear, i.e. the 'hows', 'whos', and 'whens' of PCCSP are better understood in the context of the different perspectives and interests involved. One of the main implications of this study is, thus, the importance of analysing the social, economic and structural context professionals work in when attempting to understand professional attitudes. Seeming disparities in attitudes as well as varying practices may be explained by the simultaneous existence of multiple value systems, applied to different patient populations, as found in this study.

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