

Understandings of Cervical Screening in Sexual Minority Women: A Q-Methodological Study

Discursive perspectives argue that cervical screening carries social and moral meaning. Overlooked by research into the health needs of sexual minority women, previous literature that has examined uptake of cervical screening has instead targeted increasing attendance via information and service provision. In order to explore the diversity of meanings that British sexual minority women have about cervical screening, the Q-sorts of 34 sexual minority women were factor analysed by-person and rotated to simple structure using Varimax. The five factors are interpreted and discussed relative to competing discourses on information provision within cervical screening. The five accounts are labelled 'cervical screening is': an essential health check that women have the right to refuse; a woman's health entitlement; a vital test but degrading experience; a sensible thing to do; and an unnecessary imposition for some women. Critical approaches to informed choice are explored with attention to recent developments in cervical cancer prevention. Findings highlighting the need for affirmation of diversity within healthcare are considered in relation to existing criteria for UK national screening programmes.

Key Words: *cervical screening, informed choice, Q-methodology, sexuality, social constructionism*

INTRODUCTION

An example of secondary prevention, cervical screening aims to detect and monitor pre-cancerous cells at an asymptomatic stage in order to provide treatment where necessary, thereby preventing cancer developing. Guidelines vary internationally, with most industrialized countries recommending screening between every one and five years within a target age range (approximately 20 to 69 years). Unlike many countries where cervical screening comprises part of women's routine health examinations, the UK has a national cervical screening programme (NHSCSP), delivered in the context of the National Health Service (NHS).

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Established in 1988, the NHSCSP followed demands for wider access to screening, partly by feminist and women's health activists. Current NHSCSP guidelines based on effectiveness and cost-effectiveness data 'call and recall' women every three to five years between the ages of 25 and 64, unless commencing earlier via opportunistic screening (Department of Health (DOH), 2007). Prior to 2003 when the guidelines were amended, the lower age parameter was 20 years of age. The programme's estimated success relies upon uptake by 80 percent of the population, reflected by its introduction alongside general practitioner contracts whereby the government offers target-based financial incentives to deliver screening within primary care (DOH, 1989). Consequently, research has targeted increasing 'attendance', primarily by investigating uptake differences associated with age, socioeconomic status and ethnicity (e.g. Orbell and Sheeran, 1993).

Sexual minority women (SMW)¹ have traditionally been overlooked in this area (Farquhar et al., 2001). Invisibility is likely further attributable to the role of sexual risk factors in the aetiology of cervical cancer, where 'sexual activity' is presented as synonymous with 'heterosexual activity' and, moreover, tantamount to coitus (for further discussion of the 'coital imperative', see McPhillips et al., 2001). However some SMW, including those that self-identify as 'lesbian', will have been or continue to be heterosexually active (e.g. Rankow and Tessaro, 1998). Moreover, sexual activity is simply the distal risk factor; Human Papilloma Virus (HPV) infection constitutes the necessary, but insufficient, cause of cervical cancer (Trottier and Franco, 2006). Crucially, HPV infection can be passed directly between women as transmission occurs via genital skin-to-skin contact, rather than bodily fluids (Franco and Harper, 2005), thus explaining HPV presence regardless of history of heterosexual intercourse (Marrazzo et al., 2000).

Reported comparable abnormal smear rates for sexual minority and heterosexual women (Bailey et al., 2000) in the UK has raised concern about lesbian women's risk around cervical cancer; however, these authors compared data from lesbian sexual health clinics with national data, rather than other sexual health clinics. Comparable rates of abnormal smears have been linked to less frequent attendance in SMW (Matthews et al., 2004), yet such studies often fail to control for potentially confounding factors that may facilitate opportunistic screening (e.g. antenatal care and oral contraceptive prescription) for 'straight' women.

Although it's not clear that SMW are as *at risk* as straight women, apparent lowered attendance has been attributed to risk perceptions, with some SMW self-reporting perceiving heterosexual women to be at greater risk of cervical cancer, perhaps reflecting advice from health professionals and screening guidelines (Fish and Anthony, 2005). Women-centred approaches to improve information and service provision have highlighted the impact on health-seeking behaviours of experience of healthcare, attitudes of health professionals, ability to disclose sexuality and heterosexism within society and the healthcare system (Fish and Anthony, 2005; McNair, 2003). Consequently, recognition of SMW in the NHSCSP guidelines has been demanded (Bailey et al., 2000) but remains unacknowledged (DOH, 2007; NHS, 2008).

Such women-centred approaches arguably tackle social exclusion and health inequalities, consistent with positioning by some feminist and women's health activists of cervical screening as a right for all women and source of empowerment for greater insight and control regarding women's own bodies and health (Bush, 2000; Howson, 2001). However, other commentators have insisted that feminists engage with science to question whether cervical screening, particularly via a national programme, is genuinely beneficial; both in epidemiological and psychosocial terms (Oakley, 1998).

Alternative feminist challenges originate from discursive proponents demanding attention to the social and moral meanings of cervical screening, alongside possible ulterior motives behind the NHSCSP (Foster, 1995, cited in Bush, 2000; Howson, 1999). Discourse analysis of medical literature, focus groups and semi-structured interviews with women has alternatively positioned cervical screening as a form of social control, surveillance and regulation of female sexuality, carrying social obligation to comply (Bush, 2000; Howson, 1999; McKie, 1995). However, such meanings have not been explored in SMW, with studies either omitting any comment on sexual identity (Bush, 2000), or being limited to participants presenting a public statement of heterosexuality (Howson, 1999; McKie, 1995). This highlights research challenges where inherent heterosexism and risk of homophobic social stigmatization increases the chance of heterosexual misclassification (Brogan et al., 2001; McNair, 2003).

Attention to wider meanings of cervical screening may also inform criteria that all national screening programmes must meet. The criteria against which the NHSCSP was judged at its introduction specified that the test be 'acceptable to the population' (Wilson and Jungner, 1968: 27), yet this appears to be neglected, with the emphasis instead on biomedical procedures and cost-effectiveness. Since having been updated, the criteria now specify that 'there should be evidence that the complete programme (test, diagnostic procedures, treatment/ intervention) is clinically, socially, and ethically acceptable to health professionals and the public' (Gray, 2004: 293). However these expanded criteria have not translated into a fruitful research agenda that aims to examine existing programmes. To tackle these research gaps, the current study uses Q-methodology to address the research question: what alternative standpoints do SMW adopt towards cervical screening?

Q-methodology enables these research gaps to be tackled through exploring and describing the diverse population of meanings and understandings that SMW have about cervical screening, rather than treating SMW as a homogenous group, defined only by their sexuality. The methodology is ideal for feminist inquiry, and where a particular discourse has previously dominated, given its social constructionist ontology, based on the premise that people construct alternative accounts, embedded in sociocultural and historicopolitical context (Kitzinger, 1987; Stainton Rogers, 1991, 1995). Q-methodology further fits with the epistemological aim to explore variability, rather than reduce it. In practical terms, the approach is compatible with small sample sizes, advantageous for sexual minor-

ity research due to inherent recruitment challenges (Kitzinger, 1999; Lee and Crawford, 2007) and also for the resources available to this study as a master's project.

METHOD

Q-Methodology

Q-methodology requires participants (referred to as the P-set, equivalent to the variables) to physically sort a series of items (referred to as the Q-set, equivalent to the sample). Unlike traditional attitudinal research, items are assigned meaning through the contextuality of a participant's response pattern (McKeown and Thomas, 1988), uncovering subjective viewpoints and understandings not clearly characterized as predefined attitudes. An intercorrelation matrix of the resulting 'Q-sorts' is subjected to by-person factor analysis to generate a factor structure that is qualitatively interpreted, providing accounts of understandings of the social object of interest.

Q-Set (The Item Sample)

The Q-set was derived through sampling what is 'sayable' about cervical screening. This cultural analysis was limited to literary sources (including academic journals, media and health promotion texts), informal conversation and quasi-naturalistic items adapted from interview transcripts reported in studies external to this research; this strategy is synonymous with other Q-methodological research (see Snelling, 1999). Rather than being theory-driven, statement generation encompassed all identified aspects (e.g. risk factors, reasons for attendance, barriers to screening, patient-professional interactions, experience of the procedure, experience of waiting for results, the call-recall system, discursive perspectives), provided that statements remained accessible to all participants by being jargon-free.

Following standard procedures (see Stainton Rogers, 1995), the initial statement selection was reduced to a Q-set comprising 63 items (see Table 3 later). A pilot study ($n = 5$) allowed statements to be checked for clarity, appropriate terminology and ability to discriminate between participants, leading to revision of 19 items. The majority concerned clarification of referents (e.g. item 11 was piloted as, 'People who are close to me would want me to go'), which also had the effect of the revised items being less informal. Five items were revised from absolute positions ('only/not important if ...') to less extreme positions ('less/more important if ...') in order to discriminate between participants. The pilot study also led to minor revisions of the instructions to improve clarity.

Participants (P-Set)

The sampling focus is the Q-set. While attempts should be made to facilitate diversity of accounts, participants need not comprise a random group, instead aiming to describe a population of ideas rather than people (Stainton Rogers, 1995). Following ethical approval by the host university research ethics committee, research packs were posted to 76 prospective participants approached via personal contacts, local community groups (either by email advertisement or visiting in person, according to the groups' preferences) and a snowballing technique. Completed packs were returned from 39 participants by the deadline, of which 34 were analysable,² providing an adequate number to attain stability in the resulting factor structure ($n \geq 30$; Brown, 1980). This response rate 29.6 percent has been reported elsewhere as common given that participation is time-intensive (in excess of an hour; Aldrich and Eccleston, 2000).

Procedure

Data collection was achieved by independent completion of the Q-sort, and delivered via the post. This process of completing the Q-sort has been undertaken in other studies (e.g. Eccleston et al., 1997) and does not appear to be limited as a result of the absence of the researcher. Prospective participants received research packs including information concerning the nature and purpose of the study, informed consent, debriefing and study withdrawal, detailed instructions, and data collection materials. Informed consent was asked of participants via the return of a signed informed consent form with the completed Q-sorts. Participants were then asked to sort the Q-set statements, which were randomly numbered and printed onto separate labels, into piles of most disagree, neutral and most agree. Participants then sorted the statements onto the response grid, configured with a 13-point quasi-normal distribution (see Table 1). This was appropriate because the Q-set exceeded 60 items (Brown, 1980). Once satisfied with the positions, participants affixed the adhesive labels, securing the Q-sort. Finally, participants completed the comments booklet (Eccleston et al., 1997), recording information concerning sorting choices and reactions to the statements alongside a duplicate of the Q-set, before completing the participant background information form. Participants also completed a brief questionnaire on background characteristics concerning: sexual identity, sexual behaviour (current and previous, with women, men, both, neither), age, and screening history (number of screens, if any; age first screen; ever abnormal/inconclusive result; ever treatment required). Participants were also asked to comment on their own (perceived) risk of cervical cancer; and factors affecting risk. Cervical screening history did not form part of the inclusion criteria, which were limited to current UK residence and self-identification as a sexual minority woman.

TABLE 1
Quasi-normal distribution

Rank position	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6
Number of items	1	2	4	5	7	8	9	8	7	5	4	2	1

FINDINGS

Descriptive Data

The 34 participants offered the following terms in self-labelling their sexual identity: lesbian ($n = 26$), bisexual ($n = 9$), queer ($n = 3$), dyke ($n = 2$), gay ($n = 2$), fluid ($n = 1$), open ($n = 1$), an individual ($n = 1$), 'I'm just me' ($n = 1$), '80%gay/20% straight' ($n = 1$). Current sexual behaviour (with women ($n = 29$), men ($n = 2$), both ($n = 1$), neither ($n = 2$)) differed markedly from previous sexual behaviour (with women ($n = 8$), men ($n = 1$), both ($n = 25$), neither ($n = 0$)). Participants ranged in age from 22 to 41 years ($M = 27.4$ years, $SD = 4.74$) and reported experience of between zero and six screens ($M = 2$ screens; $SD = 1.70$), with the majority having previously attended ($n = 26$). Age of first screen ranged from 16 to 25 years of age ($M = 20.4$ years, $SD = 2.34$), attributable to opportunistic screening and the NHSCSP change in target age group from 20–64 to 25–64 in 2003. Of the 25 reporting test results, nine had received abnormal or inconclusive results, of which two required treatment. Participants were predominantly White British and educationally privileged.

Participants commented on their own risk of cervical cancer, which were subsequently coded as: low ($n = 10$), lower than average ($n = 3$); average or 'normal' ($n = 8$); higher than average ($n = 6$); high ($n = 0$); don't know ($n = 6$); not answered ($n = 1$). Of the six women reporting higher than average, two cited existing gynaecological conditions, two cited familial (maternal) experience of cervical cancer, and two cited multiple sexual partners and/or unprotected sex.

Risk factors for cervical cancer were suggested by 27 participants, 17 of which included some reference to sex. Risk factors were subsequently coded as: sexual activity (unspecified; $n = 5$); sex with men ($n = 10$); number of partners (male/female unspecified; $n = 6$); age first had sex (male/female unspecified; $n = 4$); sexually transmitted infections (STIs)/unprotected sex (male/female unspecified; $n = 2$); genetics ($n = 7$); smoking ($n = 6$); lifestyle (including diet and exercise; $n = 6$); existing gynaecological conditions ($n = 2$); hormone treatment ($n = 1$); not attending for smears ($n = 1$); age ($n = 1$); and chance ($n = 1$).

Statistical Overview

The 34 Q-sorts were entered into SPSS (version 13.0; manufacturer: SPSS Inc.), subjected to principal components factor analysis and rotated to simple structure using Varimax. A five-factor structure (accounting for 67.2% of the total variance)

was selected as generating interpretable accounts consistent with the open-ended comments and hearing 'many voices' (Stainton Rogers, 1995), fundamental to Q-methodology. The decision was not limited to statistical significance; however these factors were consistent with standard criteria of each factor presenting an Eigenvalue greater than unity ($EV > 1.00$) and at least two factor exemplars (participants loading significantly and exclusively onto the factor; Brown, 1980).

Factor loadings of $> \pm 0.33$ were statistically significant at the 0.01 level;³ however, this was increased to a more stringent level of $> \pm 0.49$, maximizing the number of factor exemplars (see Watts and Stenner, 2005: note 9) and corresponding open-ended comments. The 27 resulting factor exemplars (Table 2) were weighted based on their factor loadings (cf. Brown, 1980) to generate factor arrays (or composite sorts, Table 3), illustrating the Q-sorts of hypothetical respondents with 100 percent loadings on the respective factors.

Factor Interpretation

Factor arrays were interpreted qualitatively based on positioning of items to explore conceptual similarities and differences between accounts. This included identification of distinguishing statements (Table 3) where a score on one factor differed from all the other factors by at least 3 (Brown, 1980). Open-ended comments provided by participants regarding sorting choices supplemented the factor arrays. Factor scores denoting sorting positions are provided in parentheses after the items (e.g. 16:+3). For illustrative purposes, open-ended comments are also provided in parentheses, with 'p' and 'q' used respectively to denote the participant and item concerned.

Factor 1: Cervical screening is an essential health check that women have the right to refuse. Eight participants' Q-sorts exemplified this factor. A defining feature of this account was the perception of cervical screening as no different from any other health check (16:+3). This was accompanied by a strong resistance to feeling judged about sexuality (32:-4), displaying a candid approach to sex with sexuality largely considered irrelevant to all aspects of cervical screening ('Sex is sex regardless of gender especially] if there is penetration', p17, q20). This appeared linked to wider understandings of health provision being devoid of moral meaning ('Maybe not disapprove as [health professionals] are not there to judge', p16, q62) and rejecting any notion of cervical screening as female oppression ('If a male cancer could be diagnosed in a similar way they wouldn't have to do it. Ridiculous statement', p1, q8). Women who loaded onto this factor reported markedly different experiences of the procedure from exemplars on all other factors (items 6, 17, 57), consistent with comments illustrating the clinical nature of the procedure ('Disagree – it's functional', p1, q6).

Importantly, although cervical screening was understood as a vital health check ('I think screening is essential!', p17, q3) offering a source of control (42:+2) and peace of mind (37:+4), it was felt that women must retain autonomy (12:-3;

TABLE 2
Rotated factor matrix: Factor exemplars by factor

Participant	F1	F2	F3	F4	F5
23	.84*				
31	.70*				
1	.69*				
16	.64*				
33	.59*				
17	.52*				
12	.52*				
7	.51	.51			
2	.51*				
28		.67*			
4	.54	.60			
29		.59*			
27		.56*			
25		.55*			
24		.54*			
20		.53		.50	
9		.50*			
6		.50*			
18			.76*		
14			.67*		
22			.66*		
8			.65*		
30		.58	.58		
3			.55*		
26			.50*		
10				.69*	
13				.59*	
11				.56*	
5				.53*	
34					.87*
21					.77*
15	.55				.57

Note: Significant loadings are shown, with factor exemplars denoted by *; values are reported to two significant figures.

‘Though I believe [compulsory screening] would be of benefit to the health of the nation, I feel women must have the right to refuse’, p2, q12). Empowerment was further suggested with this being the only factor where exemplars positioned attendance as their decision (43:-2), driven by their own health needs rather than external sources (‘my doctor’s disapproval is not what motivates me to have my smears!’, p2, q62).

TABLE 3
Factor arrays: Scores against each item by factor

Q-item	F1	F2	F3	F4	F5
1. The biggest risk for cervical cancer is not having a screen.	+3	0	+3	-2	-4
2. I don't really know what an abnormal cervical screening result means.	-2	0	+1	+1	-2
3. <i>Cervical screening is a waste of time and resources.</i>	-6	-6	-6	-5	-2
4. <i>The cervical screening results can't be trusted.</i>	-2	-2	-1	+2	-1
5. Cervical screening is more important for women who have had sex at a younger age.	+2	-1	+3	+1	+1
6. Having a cervical screen is an emotional experience.	-1	+3	+4	+2	0
7. I don't really understand the procedure.	-3	-1	0	-2	-2
8. <i>Men wouldn't be expected to do the equivalent.</i>	-1	-2	-2	-1	+2
9. Cervical screening could do more harm than good.	-5	-4	-2	-2	-5
10. It's too embarrassing to ask the doctor/nurse questions about cervical screening.	-2	-1	+3	0	-3
11. <i>People who are close to me would want me to go for a cervical screen.</i>	+5	+5	+5	+5	+2
12. <i>Cervical screens should be compulsory.</i>	-3	+2	-2	-1	-6
13. Cervical screening involves disclosing my sexual identity to the doctor/nurse.	-1	-3	+1	+2	0
14. The procedure is not as bad as waiting for the results.	0	+1	-2	-2	-1
15. I have to pluck up the courage to have a cervical screen.	0	+2	+4	+4	+1
16. <i>Cervical screens are no different to other health checks.</i>	+3	0	-4	0	0
17. Having a cervical screen is a painful experience.	0	+2	0	+4	+3
18. Having a cervical screen makes me feel under scrutiny or inspection.	0	0	+2	0	+1
19. The health professional could do more to put you at ease.	-1	+1	+1	+1	+3
20. Cervical screening is more important for promiscuous women, regardless of whether they have casual sex with men or women.	+2	0	-2	+1	+4
21. Cervical screening is more important for women who have had genital warts.	+1	-1	-1	-1	+3
22. Using oral contraceptives lowers the need for a cervical screen.	0	-4	-2	-2	-4
23. There is a lot of pressure to have a cervical screen.	+1	+1	0	0	+3
24. If the test found something then it would already be too late.	-3	-2	-4	-3	-3
25. Having a screen would mean to me that I think I am at risk of cervical cancer.	+1	-5	-1	-4	+2
26. I am too private a person to have a cervical screen.	-3	-2	-1	-4	0
27. Cervical cancer is something I worry about.	+2	+1	+2	-3	-3
28. Having had children lowers the need for a cervical screen.	-1	-2	-3	-1	-2
29. <i>Cervical screening is something that only heterosexual/'straight' women should worry about.</i>	-4	-4	-5	-4	+2
30. Having a cervical screen would be less embarrassing at a lesbian health clinic.	-1	+1	+2	-3	-1
31. Cervical screening is a hassle.	+1	+2	+1	-1	+4
32. <i>The process makes me feel judged about my sexuality.</i>	-4	0	+2	-1	-1
33. Cervical screening is a right for all women.	+4	+6	+5	+3	+1
34. <i>Cervical screening is for your own good.</i>	+5	+5	+4	+5	+1

continues

TABLE 3
Cont.

Q-item	F1	F2	F3	F4	F5
35. Women who have never had sex with a man are not at risk of cervical cancer.	-4	-3	-3	-4	-1
36. <i>The invitation system is a good way to make sure all women are reminded.</i>	+4	+4	+3	+3	-2
37. Cervical screening gives me peace of mind.	+4	+3	+2	+2	0
38. It is less important to go for a cervical screen if you don't feel ill.	-2	-5	-3	-6	-3
39. <i>The letter to attend feels more like an order or demand than an invitation.</i>	+1	-2	-1	+1	+4
40. Cervical screening is not something I question.	+3	+3	-1	+3	-3
41. Cervical screening is just something you have to do.	+2	+4	+1	+2	-2
42. Having a cervical screen gives me control over my body.	+2	0	0	+2	-1
43. It feels like cervical screening is not really my decision.	-2	0	0	0	0
44. <i>The procedure is not relevant to me and my life.</i>	-5	-4	-4	-3	+2
45. Cervical screening could be seen as a sexualised procedure.	-2	-3	+2	+1	+1
46. The information in the leaflet does not reflect the experience.	0	+1	+1	0	-1
47. It would bother me if the doctor/nurse was a man.	-3	+2	0	-1	+1
48. Cervical cancer is just down to chance.	+1	+1	-2	-2	0
49. <i>I know my body and don't need a cervical screen to tell me something's wrong.</i>	-4	-3	-5	-5	+4
50. Cervical screening is not something I feel strongly about – I don't see what the big fuss is.	+1	-1	-3	0	+1
51. <i>The cervical screening system feels like an invasion of my privacy.</i>	0	-2	-1	-1	+6
52. Cervical screening is more important if you use tampons.	0	-1	-1	-2	-1
53. <i>It's my body and having a cervical screen is not something I want to do.</i>	-2	-1	-4	0	+5
54. Cervical screening can save lives.	+6	+4	+6	+4	+5
55. <i>Cervical screening could help find another medical problem.</i>	+4	+4	+4	+6	0
56. <i>Cervical screens should be done more frequently.</i>	+2	+1	0	0	-4
57. Having a cervical screen is a distressing experience.	-1	+2	+2	+3	0
58. <i>Cervical screening is more important for younger women.</i>	0	-1	0	+1	-5
59. <i>The invitation system is a form of harassment.</i>	-1	-3	-3	-3	+3
60. <i>It's irresponsible not to get a cervical screen done.</i>	+3	+3	+1	+3	-2
61. <i>Cervical screening is just part of being a woman.</i>	+3	+3	+1	+4	-4
62. My doctor would disapprove if I didn't go for a cervical screen.	+2	+2	+3	+2	+2
63. Cervical screening is more important for smokers to worry about.	+1	0	0	+1	+2

Notes: Distinguishing statements are displayed in italics; -6 denotes that participants disagreed most with the statement on weighted average.

Factor 2: Cervical screening is a woman's health entitlement. The Q-sorts of seven participants exemplified this factor. Factor 2 was most distinguished by its stance against choice, being the only factor where the women who loaded onto it entertained compulsory screening (12:+2) and felt more strongly than exemplars on any other factor that attendance was 'Just something you have to do' (41:+4). This account also assigned the highest rank to cervical screening as a right for all women (33:+6).

The NHSCSP was viewed positively as providing advice, encouragement and ensuring that women were not deprived of a health entitlement. This account appeared consistent with faith in the power of the medical system, with women wanting directive healthcare provision and appearing to desire emphasis on risk ('It's good they're strong about the cancer risk', p27, q39).

Factor 2 shared with factor 1 alone an objection to cervical screening being viewed as a sexualized procedure (item 45). Interestingly, women who loaded onto factor 1 reported very different experiences, however, with the endorsement of items 6, 17 and 57 suggesting complexity of meaning beyond whether the procedure felt sexualized, or involved sexuality disclosure. Rather for factor 2, experience appeared linked to the health professional, with factor exemplars preferring a female screen taker more so than any other factor exemplars (47:+2) and offering several comments ('[Very] emotionally distressing if [the] doctor/nurse doesn't have good manner and skill', p27, q9; 'Sometimes abrupt or too clinical', p6, q19). There appeared ambiguity about meanings of lesbian health clinics and the role of sexuality in healthcare access with some participants not wanting to disclose sexuality, possibly to avoid feeling judged ('I would never come out to [a] nurse or doctor', p29, q32) but reflecting that disclosure may improve the experience ('I feel that if not honest about sexual identity then feel uneasy about asking questions', p28, q10). This again highlighted differences between factors 1 and 2, with exemplars of the former perceiving and preferring a clinical environment.

Factor 3: Cervical screening is a vital test but degrading experience. Six participants' Q-sorts exemplified this factor. Here, distinguishing statements clearly contrasted with factor 1, with women instead perceiving cervical screening as markedly different from other health checks (16:-4) and questions too embarrassing to ask (10:+3), despite feeling knowledgeable about the process (items 2, 7).

Central to this account regarding the experience of the procedure, was its 'invasive', 'intrusive' and 'personal' nature in terms of emotional rather than physical consequences (6:+4; 15:+4; 17:0; 57:+2). This was compounded by women feeling under scrutiny or inspection (18:+2), judged about sexuality (32:+2; 'Definitely, because I wouldn't lie & say I'm straight', p18, q32) and the procedure viewed as potentially sexualized (45:+2). Perhaps unsurprisingly, this account was most in favour of lesbian health clinics (30:+2). While sexuality was clearly central to meanings of the procedure, it did not appear associated with perceived risk of cervical cancer or need for attendance.

Factor 3 was thus characterized by women understanding cervical screening as a difficult, drawn-out and stressful decision-making process, balancing the experience with the need for attendance ('It's making a choice but also making yourself vulnerable – difficult', p8, q42; '[Cervical screening gives peace of mind] once I have the result – not going through the process itself', p14, q37; 'I do feel strongly that it is important but that it is awful', p22, q50).

Factor 4: Cervical screening is a sensible thing to do. The Q-sorts of four participants exemplified this factor. The distinguishing statement for this factor appeared to suggest some doubt regarding the screening results (4:+2); however, women's comments instead indicated the possibility of error was seen as expected, simply warranting a repeat test ('I've heard of people who had abnormal results, had to have another done, but there was no problem', p11, q4).

This account was characterized by a degree of indifference towards cervical screening, further suggested by both the nature and lack of open-ended comments. Cervical screening was understood as a holistic gynaecological check that could detect other health problems (55:+6). Unlike factors 1 and 3, women who loaded onto this factor were not concerned with risk of cervical cancer (27:-3; 'Don't even think about it', p10, q27) and did not view attendance as carrying meaning about risk (25:-4).

There was no suggestion of feeling coerced into attendance; however, there seemed no reason not to go ('Never really thought about not doing it', p11, q40), being the only factor where screening was refuted as a hassle ('No it's only every 3 years!', p5, q31). Normative behaviour was also suggested by reactions to pain experienced during screening ('Yes but I've only had one – maybe it was just a bad experience as it was the first time', p13, q17). Although experience was rated as more distressing than by exemplars of other factors (57:+3), women who loaded onto this factor did not elaborate. Similarly, despite feeling the need to pluck up the courage (15:+4), this seemed minimized ('Yes but feel that it's just something everyone does', p5, q15). Sexuality did not appear linked to understandings of risk (items 29, 35) or experience, with attending a lesbian sexual health clinic viewed unnecessary (30:-3).

Factor 5: Cervical screening is an unnecessary imposition for some women. Two participants' Q-sorts exemplified this factor. Factor 5 was stable across possible factor structures, presenting numerous distinguishing statements. Unlike other factors, the characterizing statements (assigned extreme ranks) also distinguished the account. Positioned as an invasion of privacy (51:+6) the NHSCSP was a central feature, whereas all other factors shared consensus regarding the call-recall system (items 36, 39, 59).

Item 12 highlighted the opposing nature of accounts 2 and 5, presenting a distinguishing statement for both. The two women who loaded onto factor 5 vehemently resisted suggestion of compulsory screening (12:-6; 'No, no, no', p21, q12), emphasizing personal choice and control over one's body (53:+5). Rather

than entitlement being viewed a rights issue, there was suggestion of screening comprising a form of female oppression (8:+2; 41:-2; 60:-2; 61:-4).

The other defining feature was the overt recognition of sexuality in the need for cervical screening. Sexual activity was understood as presenting potential risk; however, heterosexual activity was interpreted as presenting even greater risk. Exemplars reported feeling personally at low risk of cervical cancer because of the nature of their sexual practices. Unlike other factors, screening was not viewed as offering diagnosis of other health conditions (55:0), reinforcing that cervical screening was not seen as relevant to the women who loaded onto this factor (44:+2). While acknowledging controversy with such understandings, cervical screening was positioned as more important for heterosexual women (29:+2; 'I can't quite believe I've put this where I have but yes I think so!', p21, q29), for whom it was deemed valuable (54:+5).

DISCUSSION

This study has highlighted the potential of Q-methodology in exploring diversity of meanings and understandings that SMW have about cervical screening, and the need to explore this diversity rather than treating SMW as a homogeneous group. Self-labelling of participants supported the use of the term SMW. Descriptive data regarding sexual identity and sexual behaviour were consistent with demands for sexual minority research to encompass both dimensions (e.g. Brogan et al., 2001).

With the exception of one account (factor 5 – screening as imposition), consensus existed in rejecting cervical cancer and screening as more important for 'heterosexual' women. Accounts varied, however, regarding whether the cancer risk presented a personal threat, and whether cervical screening offered a way to tackle this risk, highlighting the need to consider both the understandings of the procedure and target condition.

Although half of the women cited sexual risk factors for cervical cancer, only two identified STIs or 'unprotected sex'. No exemplars explicitly identified HPV, arguably reflecting its omission from current information provision. For example, the nationally produced leaflet sent when women are invited for screening as part of the NHSCSP (DOH, 2007) lists (hetero)sexual risk factors but omits mention of HPV. Conflict over withholding of (hetero)sexual risk factors, including the role of HPV, in cervical screening information provision has previously been considered through 'protectionist' and 'right to know' discourses (Braun and Gavey, 1999). The former is characterized by the belief that such information may deter screening, for example through reinforcing links between promiscuity and cervical cancer, despite it being in the interest of women to be screened. The latter emphasizes that women are entitled to information that may affect them, with a view to making informed choices. Accounts identified in the current study will now be considered within this framework.

A protectionist commitment prioritizes the biomedical emphasis of attendance as a desirable outcome, such that ‘The “best interests” of women as a group are prioritized over the potential interests of individual women who may be in a position to use such information to reduce their risk of contracting HPV’ (Braun and Gavey, 1999: 1466). This could be interpreted as disciplinary power (Bunton et al., 1995) and a form of health fascism, prioritizing collectivism and identity as part of a group (i.e. women) ‘attempting to impose a certain lifestyle on us whether we want it or not’ (Downie et al., 1996: 144). Non-attendance may therefore be interpreted using a deficit model, such that failure to attend is seen as resulting from a lack of knowledge or concern about one’s own health. Thus factor 5 (screening as imposition) may be interpreted through concepts such as ‘unrealistic optimism’ (Weinstein, 1984), rather than considering whether risk perception may accurately reflect lowered risk. Indeed discursive work has identified screening as constituting ‘doing femininity’, given its association with feelings of normalcy (being a woman) and correctness (as a result of ‘professional discourse’ of deviance surrounding non-attendance; Bush, 2000). However, these themes still remain to be explored in SMW.

The protectionist stance is illustrated by several statements (items 40, 41, 60, 61) found to differentiate factors 3 and 5 from the remaining factors. These two factors did not appear consistent with the protectionist stance, albeit for different reasons. Women exemplifying factor 3 (degrading experience) perceived cervical cancer as a salient health threat. However, the need for cervical screening had to be weighed against their centrality of experience of the procedure, compounded by issues surrounding sexuality. In contrast, factor 5 (screening as imposition) appeared more focused on resistance to the NHSCSP because of disciplinary power and surveillance, compounded by perceived irrelevance linked to sexuality. Such findings highlight the need to consider diversity when evaluating acceptability as part of the national screening criteria, as well as the need to extend acceptability beyond the test procedure to encompass wider meanings of the NHSCSP.

Although factors 1 (essential health check), 2 (health entitlement) and 4 (screening as sensible) appeared consistent with the protectionist perspective, interpretation attending to sorting choices and open-ended comments highlighted variation between factors. While factor 2 (health entitlement) was compatible with a need for regulation, wanting directive healthcare, and factor 4 (screening as sensible) seemed to position cervical screening as normative behaviour, minimizing any negative aspects, factor 1 (essential health check) emphasized the need for personal choice and resisting social obligation to comply.

A right to know position may also be congruent with wider health policy aims relating to attendance, with health promoters hoping that informed choice will result in women actively opting to have cervical screening and additionally engaging with primary prevention via reduced HPV infection, thereby ‘increas[ing] women’s opportunity for making health-promoting choices’ (Braun and Gavey, 1999: 1472). This position is therefore subject to similar critical reflections con-

cerning rational choices being seen as synonymous with healthy choices (Marks et al., 2005). As well as compromising collective health, informed choice may be criticized for increasing the stigma of promiscuity, and facilitating health citizenship, leading to victim-blaming for those who develop the disease. Therefore, such a perspective similarly requires reflections on meanings of attendance and careful consideration of how such information is communicated.

Informed choice has been advocated by the National Screening Committee (Gray, 2004) and appears more consistent with addressing the criterion of acceptability to the population. Although informed choice in cervical cancer screening has previously been discussed in relation to ethnic minority women (Chiu, 2004), invisibility of SMW has continued in that literature. Therefore, employment of an informed choice approach will be a fruitful framework to use in order to explore issues such as HPV transmission between women and acknowledging diversity in sexual practices.

But whether women want informed choice is also an important question to explore. Consistent with factors 2 (health entitlement) and 4 (screening as sensible), a recent UK qualitative study (Jepson et al., 2007) exploring informed choice with cancer screening (breast, cervical and colorectal) identified that participants attending for cervical screening more commonly viewed attendance as a normative behaviour than a choice and did not want to use information to make a choice. While factors 1 (essential health check) and 5 (screening as imposition) forcefully advocated the need for personal choice, only women loading onto factor 1 in the current study felt that cervical screening was their decision. Therefore, this issue of informed choice may warrant further consideration using empowerment and/or decision-making models.

Future research into informed choice may benefit from a more holistic approach than information provision by considering experience of the procedure, which was a prominent feature of several accounts (factors 2, 3 and 4). In particular, as well as understanding the decision making as a source of stress, women who loaded onto factor 3 (degrading experience) positioned the experience as disempowering, possibly compounded by issues of sexuality. Indeed, future challenges in developing anti-oppressive practice alongside informed choice were highlighted by several key statements in the Q-set (items 13, 30, 32) and written comments emphasized the need for affirmation of diversity ('It would be nice not to have my identity or ... sexual practices presumed', p3, q30; 'I have been questioned about my sex life to the point where it was easier to say I'm a lesbian even though I didn't want to', p30, q13). The current findings resonate with the US-based research of Johnson et al. (1981), published almost 30 years ago. It appears that British SMW's perceptions of screening services and screening personnel are very similar despite both the intervening years and the different settings in which these studies have been undertaken!

Suggestion of lesbian sexual health clinics (available in several UK cities) received a wide range of responses ('Sign me up!', p30, q30; 'This is an awful suggestion. The lesbian community is segregated enough', p31, q30; 'Not sure,

I prefer normal clinics – lesbian labels me’, p6, q30). Some participants felt that developing anti-oppressive practice within central provision would be preferable (‘[Lesbian clinics would tailor] questions more effectively and not pre-judge but equally all health workers could be trained and more informed with regards to everyone’s needs’, p16, q30). Future work may consider perceptions of such service provision and how to safeguard against contributing to discrimination and heterocentric assumptions in non-specialized screening services.

Issues discussed here surrounding protectionist and right to know arguments warrant further investigation in light of current developments in UK healthcare provision surrounding prevention of cervical cancer. For example, media coverage following the proposed introduction of the HPV vaccine in the UK argued that it might encourage underage unprotected (hetero)sexual activity (see Davis, 2008). Such concerns were also voiced in the US (Gibbs, 2006; Udesky, 2007) and in virtually every other country where the vaccine has been approved for use. It is also anticipated that HPV testing accompanying cervical screening will be introduced into the NHSCSP within the next few years, with several pilot sites already operational (Patnick, 2006). Critically, SMW and diversity of sexual identities, behaviours and practices remain invisible in discourse surrounding HPV, even where detailed discussions exist surrounding the acceptability of the vaccine (e.g. Riedesel et al., 2005; Zimet, 2005).

Social constructionist approaches would envisage that these policy and practice developments impact upon wider meanings of cervical screening and cervical cancer prevention. Indeed, the Ad Hoc Group on Screening Research proposed an additional principle of continually reviewing screening arrangements ‘in the light of changes in demography, culture, health services, technologies, and the epidemiology of the target conditions’ (Downie et al., 1996: 144). However this has not been adopted by the National Screening Committee (Gray, 2004).

Study Limitations

The Q-set was limited by omission of any items relating to HPV. This reflected an intention for statements to be free from jargon and that the cultural analysis was conducted before HPV vaccine proposals were announced in the UK. However, it would have been possible to include, for example, reference to STIs. Additionally, only six of the 63 items explicitly mentioned sexuality (items 13, 20, 29, 30, 32, and 35). This may therefore have limited the potential for women to express salience of sexuality relating to meanings, understandings and standpoints.

Although not needing to be representative, participant recruitment should facilitate diversity in order to access a greater population of standpoints and meanings. This study appeared to achieve some diversity regarding sexual identity and behaviour, particularly given the invisibility of bisexual women (Lee and Crawford, 2007). However, diversity was likely limited by inherent challenges in sexual minority research, for example, recruitment via community groups suggesting some public statement of sexual identity. Importantly, the omission

of heterosexual participants was not considered a limitation, instead considering SMW without the need for comparison (Kitzinger, 2004). While caution must be exercised in making a priori assumptions about demographics, the study was likely substantially confounded by lack of racial, ethnic or socioeconomic diversity given the recruitment strategy employed and this should be considered in future research in this area.

The study focused on the NHSCSP. However, information was not recorded on whether participants, although residing in the UK, had experienced this screening programme, or indeed one in another country. Also, by deciding against restricting inclusion criteria based on screening history, there is a need for caution in distinguishing neutral ratings, which could be attributable to women feeling unable to comment through inexperience of screening.

The aim of Q-methodology is not to be exhaustive, but to explore a general overview of accounts that exist at a given point in time. It is not claimed that all possible accounts have been identified here. Indeed, responses are not represented of the seven women who did not load significantly and exclusively (five cross-loaders and two non-loaders) onto one of the five factors. Another limitation concerned the use of a fixed sort. Although common practice and considered more user-friendly than a full ranking (Brown, 1980), several participants reported feeling forced to position items on the opposite side of 0, again suggesting the need for caution in interpreting the more neutral ranks. It may have been preferable, therefore, to employ 'free' distributions where the only requirement is at least one item per rank position (Kline, 1994).

CONCLUSIONS

This exploratory study has recognized the need for affirmation of diversity within criteria for national screening programmes. The accounts highlighted the complexity of meanings around cervical screening, indicating that for screening to be more widely accepted it also needs to encompass wider meanings of cervical screening, cervical cancer and the NHSCSP. Current demands by service users for informed choice largely emphasize information provision, without attention to broader issues surrounding empowerment and the experience of the procedure. There is also a need to reflect upon wider values within health promotion, and to consider critical approaches to espousing informed choice alongside the continued use of financial incentives within primary care (to ensure screening occurs). Issues identified in this study are particularly pertinent given the prospective UK changes to cervical cancer prevention around acknowledging the centrality of HPV. Continued invisibility of SMW is evident within such developments, and warrants further attention.

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NOTES

1. Health literature concerning the sexual orientation of women employs a diverse range of terms. Rather than potentially implying behaviour (e.g. women who have sex with women), or self-identity and community connections (e.g. lesbian or bisexual), the term SMW was adopted in recognition of sexuality encompassing both sexual identity and sexual behaviour (Brogan et al., 2001) and to avoid alienating potential participants. Providing women the opportunity to also record their preferred terms aimed to safeguard against 'denying' or 'undermining ... self-labelling' (Young and Meyer, 2005). The term SMW was additionally chosen to reflect the cultural minority status of this group (McNair, 2003).
2. It is possible to transform data from sorts that do not adhere to the quasi-normal distribution. However it was deemed inappropriate to synthesize results from different procedures, particularly as several participants who did adhere to our instructions reported frustrations with the fixed sort and may have generated different sorts using a free distribution.
3. Statistically significant factor loadings are required to exceed 2.58 times the standard error of a zero-order factor loading, where the standard error is equal to $1/\sqrt{n}$, with n denoting the number in the Q-set (McKeown and Thomas, 1988). In this instance, $2.58 * (1/\sqrt{63}) = 0.33$.

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