

Risk factors for urinary tract symptoms in women: beliefs among general practitioners and women and the effect on patient management

ELIZABETH RINK

SUMMARY

Background. Urinary tract symptoms are common in women. A variety of risk factors have been investigated in the past. One of the more likely risk factors for these symptoms is recent sexual intercourse; another is diaphragm use. Morbidity levels are increasing, although effective antibiotic treatment is available.

Aim. To study the beliefs of women and their general practitioners (GPs) about urinary tract symptoms and to determine how these may affect management.

Method. An interview survey with 113 women consulting with urinary tract symptoms and the 22 GPs they consulted.

Results. Doctors and women have similar beliefs about the 'causes' of urinary tract symptoms, but the relative importance differs. Both acknowledge the association with sexual intercourse but fail to communicate about this during the consultation. Patients reported being embarrassed on their own and their GP's behalf if sensitive subjects were raised. Doctors failed to ask women what they thought had caused the symptoms and were also unlikely to suggest to them likely causes. They also reported reticence to do more than prescribe, at least in first consultations, and half of the doctors routinely prescribed antibiotics, regardless of a near patient diagnostic urinary stick test result. The advice given was not necessarily evidence based.

Conclusions. GPs need to be more aware of the risk factors associated with urinary tract symptoms in women and should formulate their advice accordingly. The reticence to discuss sensitive subjects by both GPs and patients has implications for the ability to broach sexual matters in any consultation in which they are not the reason or focus for that consultation.

Keywords: risk factors; women's health; doctors' beliefs; patient management; urinary tract infections.

Introduction

THE conceptual foundation for doctors practising Western medicine is the biomedical model. The basis for lay beliefs is more diffuse, often socially constructed, and likely to include input from within and outside the patient and from the natural and supernatural world.¹ Lay beliefs may be discordant with or opposed to professionals' understanding of the causes and explanations of disease and illness. These two belief systems come together at the time of the consultation.

Effective communication between a general practitioner (GP) and his or her patient is an essential, although not exclusive, cri-

terion for effective care. GPs and patients have been described as having separate worlds of experience and different agendas during the consultation.² Factors that may hamper this communication include not only the differing beliefs and belief systems, but differing expectations and differences in the perception of what is permitted within the context of the consultation.³ GPs are reported⁴ to investigate the framework of patients' knowledge in fewer than a third of consultations, and to make active attempts to explore what the patients meant in only 14%.

The treatment of urinary tract symptoms has been simplified by effective antibiotic treatments. There has been widespread research into the risk factors. The currently available data support the view that there is an association between recent sexual intercourse and bacteriuria,^{5,6} although the evidence is somewhat ambivalent in relation to the frequency of intercourse and subsequent infection.⁷⁻⁹ The use of the diaphragm is the form of contraception most often associated with urinary tract symptoms.^{6,9-11} There is some evidence that delaying urination during the normal course of the day is associated with an increased risk of subsequent urinary tract symptoms,^{12,13} and significant evidence that urination shortly after sexual intercourse is protective against future attacks of urinary tract symptoms.^{6,12,14} No significant associations have been shown between food, drink, clothing, menstrual protection, perineal hygiene, direction of wiping,⁶ or use of bath preparations⁹ and subsequent urinary tract symptoms. Symptoms are frequently, although not exclusively, associated with infection.

Both doctors and patients are thought to concentrate on treating the attack instead of searching for its cause.¹⁵ Is effective management of urinary tract symptoms being limited by lack of knowledge of risk factors or by reluctance on the part of both GPs and patients to acknowledge or communicate their beliefs about the 'causes' or risk factors?

Method

As part of a larger study, 140 women recently suffering from urinary tract symptoms, who had consulted a GP from one of the three group general practices, were approached for telephone interview. The 22 GPs they consulted were interviewed face to face.

Using a semi-structured format, both GPs and women were asked about their knowledge and beliefs about the 'causes' of urinary tract symptoms. Women were asked about their recent consultation and the information and advice they were given. GPs were asked about how they managed women with urinary tract symptoms and what advice they usually gave. The questionnaires were developed specifically for this study, the content being determined after consideration of both the literature covering the risk factors for urinary tract symptoms and the theory of consulting behaviour. Because a woman could see more than one GP during the course of one episode and was quite likely to have seen several different GPs if she had recurrent symptoms, no attempt was made to test associations between the beliefs of an individual GP with those of an individual patient.

E Rink, MPhil, research manager and honorary lecturer in primary health care sciences, Department of General Practice and Primary Care, St George's Hospital Medical School, London.
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Results

The responders

Ninety-nine (71%) women were interviewed over the telephone within five days of their consultation. A further 14 women (10%) responded to a postal self-complete questionnaire. The remaining women could not be contacted near enough in time to their consultation. All 22 GPs, 10 female and 12 male ranging in age from 34 to 63 years, were interviewed.

Beliefs about 'risk factors' for urinary tract symptoms

The women. The free responses by the 113 women to the question 'why do you think you have these symptoms now?' are shown in Table 1. 'Other' causes included using too much talcum powder or bubble bath, diabetes, cycling, polypos, drinking too much, cancer, contamination from swimming pools, falling, and drinking water boiled in a dirty kettle! Neither age nor social class of the women was significantly associated with beliefs.

In addition to the opportunity to respond freely, women were also asked whether they thought any of the list of items shown in Table 2 caused their symptoms. Forty-four (39%) women agreed that sexual intercourse was likely to provoke symptoms, with 10 saying it was a problem if they overdid it, nine were likely to have problems if they did not empty the bladder after intercourse, and two if vaginal lubrication was not sufficient. Twenty-three women gave no further information.

Among those who agreed that drinks were a risk factor, coffee/tea, alcohol, and fruit juices/acidic drinks were mentioned by 12, 11, and 10 women respectively. A further three women linked alcohol with prolonged sexual intercourse, which they felt could cause the symptoms. Two women felt that the onset of symptoms was more likely when they let their daily liquid intake drop. Five of the women concerned about hygiene mentioned that it was important to wipe from front to back after defecation. Four suggested bubble bath and three bathing as opposed to showering as risk factors. Three were concerned that there was a possibility of cross-infection from their partner. Nylon tights or

underwear were a concern for 21 women who considered these to cause the perineal area to become sweaty and, therefore, likely to harbour germs. Five thought that wearing tight jeans caused them problems. The diaphragm, condoms, and the pill were equally mentioned as forms of contraception associated with symptoms. Six of the women mentioned over-spicy foods, while three cited yeasty food.

The doctors. In free response to 'why do you think women get urinary tract symptoms?', the most common reason, given by 11 (92%) male and seven (70%) female doctors, was 'their anatomy' or 'their short urethra'. Recent sexual intercourse was given as a risk factor by six (50%) of the male and by eight (80%) of the female doctors. Four male doctors and one female doctor related the problem to age and hormonal changes. Other possible risk factors were poor perineal hygiene, tight clothing, contraception, gynaecological problems, reduced fluid intake, poor bladder control, use of bubble bath or vaginal deodorants, an association with *Candida*, or that symptoms were psychosomatic.

The consultation

The symptoms that GPs reported asking about are shown in Table 3. There was a significant difference between the sexes. All 10 female and only 58% of the 12 male doctors reported asking about dysuria and frequency ($\chi^2 = 5.4$, $P = 0.02$). Doctors under the age of 40 years were significantly more likely to ask about haematuria ($\chi^2 = 4.7$, $P = 0.03$). The age or sex of the GP was not significantly associated with asking about the remaining symptoms. Half considered it normal to ask a woman why she thought she might have the symptoms (see Table 3). Younger and female doctors were more likely to ask if the patient had a new sexual partner (46% under age 40 years versus 11% of older doctors; 40% female versus 25% male doctors). Female and younger doctors were also more likely, although again not significantly, to ask about recent intercourse and contraception.

Eleven (50%) GPs reported immediately prescribing an antibiotic, regardless of the diagnostic test result; the other 11 (50%) prescribed an antibiotic on a positive stick test result. All but three GPs reported that they would recommend some preventive measures, although not necessarily at a first consultation. The most common advice suggested by 13 (68%) of the doctors was for patients to void the bladder after sexual intercourse, although all but one reported that they were unlikely to give this advice to a patient presenting with the symptoms for the first time. Interestingly, not one reported asking patients about their routine urination behaviour. GPs were also reluctant to discuss any link between the short urethra, sexual intercourse, and symptoms at a first consultation. Other preventive measures mentioned by five (23%) GPs were care with perineal hygiene, and three would suggest a high fluid intake at all times.

Illustrative comments made by four of the 113 women indicate that communication during the consultation was deficient:

'My doctor told me it could be the result of a physical defect in

Table 1. Women's beliefs about why they had the urinary tract symptoms at this time.

Belief	n (%)
It's just one of those things, chance	54 (48%)
Recent stress	12 (11%)
Childbirth or recent operation	11 (10%)
Sexual intercourse	10 (9%)
Menstruation	6 (5%)
Food and/or drink	4 (4%)
A chill	3 (3%)
'Other'	10 (8%)
No reason given	3 (3%)

Table 2. Risk factors for urinary tract symptoms: women's beliefs about possible causes.

Risk factor	n (%)
Sexual intercourse	44 (39%)
Clothes	21 (19%)
Drinks	32 (28%)
Contraception	10 (9%)
Hygiene	31 (27%)
Foods	9 (8%)

Multiple responses were allowed.

Table 3. History taking by 22 GPs.

Symptoms	%	Risk factors	%
Dysuria	78%	New sexual partner	32%
Frequency	78%	Contraception	18%
Haematuria	50%	Recent intercourse	18%
Previous history	50%	Tight clothing	9%
Fever	27%	Perineal hygiene	5%
Duration	14%	Vaginal symptoms	5%
Urgency	9%		

me — I have a short urethra'

'My GP told me I had honeymoon cystitis — how stupid, I've been married for years'

'He said I had honeymoon cystitis, but I'm not married yet, we're only living together'

'Well he talked about it being to do with sex, but that makes no sense to me at all'.

Seven of the doctors (35%) said that they felt patients were uncomfortable or embarrassed when talking to them, while five (23%) reported that they felt uncomfortable talking to female patients about the link between their symptoms and sexual intercourse. Most women reported that they did not have a problem talking to their doctor. However, one-third (37; 33%) of the women found it embarrassing talking to their doctor about these symptoms, and one-fifth (20; 18%) felt that their GP was embarrassed or diffident when they discussed the symptoms.

One-fifth of the women (22; 20%) reported having been asked by their doctor why they thought they had their symptoms; and one-fifth (23; 20%) reported being told what the cause of their symptoms was. The reasons recalled by nine of the women were that they had a bladder infection, by five that there was a link with sexual intercourse, two that they were overtired, two that female anatomy and perineal hygiene were important factors, and two that it just happens sometimes. One woman reported being told that the symptoms were as a result of bruising from cycling, and another that she was not emptying her bladder fully.

Discussion

There is evidence from this study that what doctors know and believe about urinary tract symptoms is not transmitted to women and, furthermore, what women know and believe is not transmitted to doctors during the course of the consultation. In addition, both patients and, more surprisingly, doctors have beliefs unsupported by scientific evidence.

The doctors' most frequently voiced risk factor for urinary tract symptoms in women was female anatomy, while not one patient spoke of her anatomy. Female anatomy is generally described in medical textbooks relative to male anatomy; the doctors in this study referred to women having a short urethra and gave this as an explanation to women for their urinary tract symptoms. This led to some women believing that they are deformed or unusual relative to others of their own sex.

Recent sexual intercourse was the second most frequently mentioned risk factor by doctors, often coupled with the, perhaps euphemistic, phrase 'honeymoon cystitis'. No woman in these surveys described her symptoms as 'honeymoon cystitis'. Women were reticent to link their current symptoms with recent sexual activity, with only 9% doing so. However, 39% of the women generally considered intercourse to be a risk factor. This gives an intimation of the basis of the difficulty in communication about these matters within the consultation.

There is evidence in the literature of an association with diaphragm use,^{6,9-11} but none of the GPs cited diaphragm use as a risk factor, and none reported routinely asking a patient about her current form of contraception. Conversely, there is no research evidence that either tight clothing or bubble bath use is a significant risk factor.^{9,16} Both were cited as a risk factor by patients and doctors.

In order to prevent future attacks, some doctors recommended that women take more care with their perineal hygiene, despite a lack of unequivocal evidence to support perineal cleaning from front to back after defecation.⁶ The implication by GPs that they were somehow dirty was insulting to some women. Most doctors found it difficult to clarify for me exactly what words they used

when discussing perineal hygiene. The use of jargon, or oversimplification, can lead to confusion: a term such as 'being careful with hygiene' is not likely to relay to the patient what the doctor really means about the transference of *Escherichia coli* from rectum to urethra. The patient is likely to construct her own meaning if full information is lacking.

On one level, the GPs considered the consultation to be straightforward: there is an immediate solution in the form of antibiotic prescription, which works in the vast majority of situations. As this is so often successful and the patient does not return at least for some months, the doctor may feel reassured that his or her action was appropriate and exonerated from not having asked more probing questions or giving advice about prevention. The doctors here suggested that a patient does not expect advice or information and that a discussion about risk factors is normally delayed until at least the second consultation. This includes discussing sexual intercourse with the patient; doctors report embarrassment both for themselves and their patient when discussing sensitive issues. The result is that, as women are unlikely always to see the same doctor, they may suffer from several attacks without being given any advice or information.

The importance of the negotiation between doctor and patient, specifically for the management of cystitis, has been recognized¹⁷ but may be influenced by differences in doctor's attitudes to conditions that are specifically female.¹⁸

General practitioners and patients are finding it difficult to communicate about sexual intercourse in a comparatively non-threatening consultation about urinary tract symptoms for which there is, in the majority of circumstances, an easy, quick, cheap, and effective treatment. How much more difficult is it likely to be in the areas highlighted by the *Health of the nation*¹⁹ targets relating to sexual health?

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Address for correspondence

Elizabeth Rink, Department of General Practice and Primary Care, St George's Hospital and Medical School, Cranmer Terrace, London SW17 0RE.

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