



An exploration of osteopaths' views and experiences regarding the identification of, and provision of advice for, urinary incontinence in women: A qualitative study using framework analysis

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ABSTRACT

Background: Urinary incontinence (UI) may be defined as a storage symptom of the lower urinary tract resulting in the involuntary loss of urine. UI is common in women, but many of those affected do not mention symptoms to healthcare providers. The prevalence of the condition makes it likely that a large proportion of women attending for osteopathic care will be affected by symptoms of UI. It is not known whether osteopaths routinely ask about urinary UI, or provide advice.

Aim: The primary aim of this research was to explore osteopaths' views and experiences regarding the identification of UI in women.

Methods: This research was undertaken as an exploratory, qualitative study. A purposive sample of 11 osteopaths participated in semi-structured interviews. The data were analysed using a framework approach.

Findings: A wide variation in views and experience of identifying and providing advice for urinary incontinence in women was found. Identification of UI occurred either by practitioners asking about symptoms; by following up on comments or observations; or, by patient led discussions.

Conclusions: This study has identified barriers to discussing UI in routine osteopathic consultations. UI is common in women and those affected are often reluctant to seek help. Women can be helped to improve their symptoms if they are given appropriate advice. More awareness of the condition and appropriate advice may encourage more osteopaths to consider UI as part of routine care.

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Introduction and background

Urinary incontinence (UI) may be defined as a storage symptom of the lower urinary tract and is broadly categorised by the International Continence Society [ICS] [1] as:

- Stress urinary incontinence (SUI) - involuntary leakage of urine on effort or exertion, or on sneezing or coughing.
- Urge urinary incontinence (UUI) - the involuntary leakage of urine accompanied or immediately preceded by urgency.
- Mixed urinary incontinence (MUI) - involuntary leakage associated with urgency and also with exertion, effort, sneezing or coughing [1].

UI may affect females of all ages and at all stages of life. Women are generally affected more than men and there are differences in risk factors according to gender [3]. It is estimated that roughly one third of women over the age of 40 suffer from some form of urinary incontinence [2], with one quarter of women of all ages are affected [3]. There is evidence to suggest that the prevalence of UI increases up to middle age, levels off between 50 and 70 and then steadily increases again after the age of 70 [3]. The proportions of UI type differs somewhat with age, with older women suffering more with UUI and MUI and younger women more with SUI [3]. There are some sub-groups of women where prevalence rates are higher, most notably pregnant women and those living in residential care [3]. The menopause also has an effect on urinary symptoms and atrophic changes in the tissues can contribute to storage symptoms such as urinary frequency and urgency; however, there is inconsistency in the literature with regard to an increase in UI related to menopausal status [3].

Despite UI being a commonly experienced condition, the

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number consulting a health-care professional about urinary symptoms is relatively low. UI has been described as an “ice-berg” condition with only a minority seeking care [4]. Healthcare professionals similarly, may not routinely screen for this condition and in many cases are likely to be unaware that their patients are affected by it [5]. There is inconsistency in terms of how women are assessed and treated, depending on the NHS pathways available in a particular area. Some women are assessed and treated in primary care by GPs and practice nurses, whilst others are referred to secondary care and are seen by specialists such as physiotherapists or urologists [2]. In addition to the gaps in identification of UI, assessment and treatment are currently suboptimal and there exists opportunities for better collaborative working across health care professions [6].

The prevalence of UI in adult women means that a considerable proportion of patients affected by this condition are likely to present to osteopaths in the UK. A critical literature review undertaken by the first author identified that women with symptoms of urinary incontinence were reluctant to seek help from healthcare providers [7]. The literature review identified that healthcare providers could raise awareness of the condition by proactively asking all women about urinary leakage symptoms. Since there were no studies specifically looking at this issue in osteopathic practice, it is not known whether women are equally reluctant to seek help from their osteopath as from other healthcare providers, whether osteopaths in the UK do routinely ask about symptoms of UI, or, whether they provide advice or other management [7].

The primary aim of this research was to explore osteopaths' views and experiences in identifying urinary incontinence in women and to describe any advice or management provided.

Methods

This project was undertaken as part of an undergraduate, integrated masters award in osteopathy. The research was designed as an exploratory, qualitative study [8]. Since the literature review that informed this research had not identified any publications specifically aimed at osteopaths, an exploratory, qualitative methodology was considered an appropriate design, since it would provide a starting point in understanding the topic from an osteopathic practitioner's perspective. The methodology used in this study enabled participants to provide their own accounts, since open-ended questions were devised and an inductive approach in semi-structured interviews permitted themes to emerge. A framework approach as first described by Richie and Lewis (2003) [9], was used for this study; a schematic overview detailing the stages involved is included at [appendix A](#). Framework approach was considered appropriate as it enabled a cross-case and cross-theme analysis of the coding frame, to identify key characteristics, categories and quotes suitable for inclusion [10]. The aim with the chosen methodology was therefore to map a range of osteopaths' opinions and experiences; to identify themes and patterns within these; to analyse these data in order to construct concepts and finally, to combine the emic and etic perspectives to provide the richest understanding in order to explain the meaning derived from the data by providing a summary [9].

Subjects

Eligible for inclusion in the study were osteopaths, practising in the UK; non-qualified/student osteopaths were excluded. Purposive sampling was undertaken. The sampling strategy aimed for a broad range of perspectives and length of experience to be included [11]. Representatives of selected osteopathic organisations were contacted via email and were asked to approach all of their

members to invite them to take part; approved study information documents were included with the invitation. The following organisations were approached: National Council for Osteopathic Research (NCOR) Hubs, College of Osteopaths (lecturers and tutors), Osteopathic Pelvic, Respiratory, Abdominal Association (OPRAA), Northern Counties Society of Osteopaths, Western Counties Society of Osteopaths, British Naturopathic & Osteopathic Association (BNOA). No reminders were sent. 11 volunteered and took part in the study.

Data collection

Semi-structured interviews, with open-ended questions were used to collect the data. This format was deemed appropriate since it provides the opportunity to obtain comparable qualitative data and to ensure that all of the areas of enquiry are covered during interviews. It allows for topics to be expanded by both interviewees and researchers, according to how the interview flows [12]. A topic guide was developed in order to enable the research aims to be addressed. The guide was trialled with two student osteopaths initially. Since only qualified osteopaths were eligible for inclusion in the study, the data from the students were not included in the final data set. Subsequently two further pilot interviews were undertaken with qualified osteopaths, the data from these were included in the final analysis. The guide was modified iteratively to capture the feedback and learning from all of these pilot interviews. Following revisions, the topic guide was structured into a flowchart that enabled the interview to progress in one of two directions; the final copy is included at [appendix B](#). Semi-structured interviews were undertaken by MR, 3 were face-to-face, and 8 were by telephone (with audio data collection only). Face-to-face interviews were carried out at the workplace of the participants, with due care given to confidentiality and privacy. Telephone interviews were undertaken at the home address of MR in a private room where confidentiality could be ensured. In addition to the topic guide, 4 brief vignettes ([appendix C](#)) were prepared and used to facilitate discussion using predetermined scenarios. The use of vignettes in qualitative research permits sensitive topics to be explored in a non-judgemental and non-threatening way [13]. The order of the questions and the exact phrasing of interviews varied according to how the discussion progressed and participants had the opportunity to expand on the topics covered, or add detail that they considered relevant. The interviews lasted between 11 min and 52 min, with a median of 30 min. All interviews were recorded with participant consent. Recordings were labeled with a numeric identifier to protect confidentiality and were stored on a password protected, personal laptop, compliant with ethical approval conditions.

Data analysis

Interview recordings were manually transcribed and participants were assigned numerical identifiers. Each transcript was read and re-read whilst listening to the interviews. The study aims and objectives, along with the topic guide questions, were used to identify a priori themes; early impressions that emerged from the initial reading of the data [14] were combined with these to form the first iteration of the coding frame. The coding frame was therefore the product of both a deductive and inductive approach [14]. The main themes and the sub-themes within the coding frame were labeled using numeric codes. Using these codes, MR and SF systematically indexed the first of the transcripts by manually marking sections of data. The indexing was compared and discussed and the coding frame was then refined with additional codes added and others combined in order to reduce overlap and

redundancy among categories. MR and SF independently indexed a further five transcripts. MR indexed the remaining five transcripts. The coded data were retained within the original printed format. This enabled the context to be preserved, the accounts to be revisited and repeated comparison between cases and themes to be made. A third researcher (LG) independently checked the indexing of a sample of the transcripts for comparison and agreement. Participants' accounts were compared across the themes and sub-themes and patterns and associations identified - forming the final concepts. A tabulated summary of analysis activities is included at Table 1 below.

Results

Participants

11 osteopaths participated in this research, seven females and four males. One individual formally declined the invitation declaring time constraints, and one non-participant provided comment via email; there were no drop-outs. Participants were asked to complete a demographic data collection form; this

enabled individual participant's osteopathic approach and any areas of special interest to be recorded. Participants could select one approach and as many areas of interest as they considered appropriate. The responses are listed at Tables 2 and 3 below.

Participants' clinical experience ranged from one year post graduate to over thirty years as a qualified osteopath.

Concepts and themes

This study explored osteopaths' views and experiences of identifying UI in routine cases. The explanatory analysis followed the framework methodology by interpreting associations and patterns within themes and concepts, reflecting back on the raw data within its context and by addressing the aims of the study. An illustration of the concepts and main themes is shown at Fig. 1 and a brief description of each is given below.

Experience in identifying UI

There was a wide variation in experience of identifying UI, with some participants having extensive and others minimal experience. The cases that participants described commonly related to sport,

Table 1
Summary of analysis activities.

Description of activity	How undertaken	by whom
Interviews undertaken and recorded	Face-face or telephone interviews; consent obtained; demographic data obtained; interview recorded with consent;	MR
Pseudoanonymised list of participants stored to enable reporting and sharing of results (where requested)	Recorded interview stored with numeric identifier and date of interview on personal, password protected device; list of participants including demographic details, numeric identifier, date and duration of interview stored on personal, password protected laptop.	MR
Interviews transcribed	Recordings played and accounts manually entered into electronic 'Word' documents; numeric identifier used for participants.	independent transcriber
Transcriptions proof-read and corrected	Electronic documents read whilst listening to interview recordings; Corrections made and final versions saved electronically.	MR
Reading and re-reading data - familiarisation	Printed copies of transcripts read and re-read several times.	MR
Identification of initial themes	Post-it notes used to manually record initial impressions of codes in transcripts; MR a priori themes identified to answer research questions and aims - added to post-it notes; clustering of post-it notes into categories.	MR
Development of coding frame	Clustered categories labeled as main themes; sub-themes identified within each of these; spreadsheet developed with main themes and sub-theme lists; reference sheet with all themes listed, plus seven tabs - one for each sub-theme.	MR
Assigning data to themes and categories in the coding frame	1. Annotation of one printed transcript with numeric code representing sub-themes; comparison of coding; revision of coding frame. 2. Systematic, independent indexing of five transcripts. 3. Systematic, independent indexing of remaining five transcripts (MR only).	MR/SF
Checking coding for agreement	The indexing of a sample of the transcripts was checked for comparison and agreement; additional codes added to the coding frame.	LG
Storing coded data to enable retrieval and analysis	Line numbers of printed transcripts used to identify coded sections of data; line numbers of data sections identified in transcripts entered into coding frame spreadsheet; transcripts retained in their complete form with manual annotations.	MR
Summarising and synthesising the range and diversity of coded data by refining initial themes and categories	Cross-case analysis of individual themes and sub-themes to identify what each participant was saying with regard to each sub-theme identified.	MR
Identifying association between themes and development of concepts	Cross theme analysis to identify patterns and associations in the data.	MR
Development of concepts	Condensing themes to form concepts reflecting back on original raw data.	MR
Development of associations between concepts	Analysis and reflection of what the data were saying with regard to the research questions and aims.	MR
Interpreting and explaining the concepts	Explanatory analysis revealing circular link between concepts; quotes (raw data) identified from coding frame for each concept and theme; pseudonyms chosen for each of the participants.	MR
Member checking	A sample of participants (n = 3) were asked to check that quotes used were fairly attributed to concepts and reflected their intended meaning.	MR
Seeking wider application of themes and concepts	Identification of conclusions and recommendations from the study; identification of future research needed.	MR

Table 2

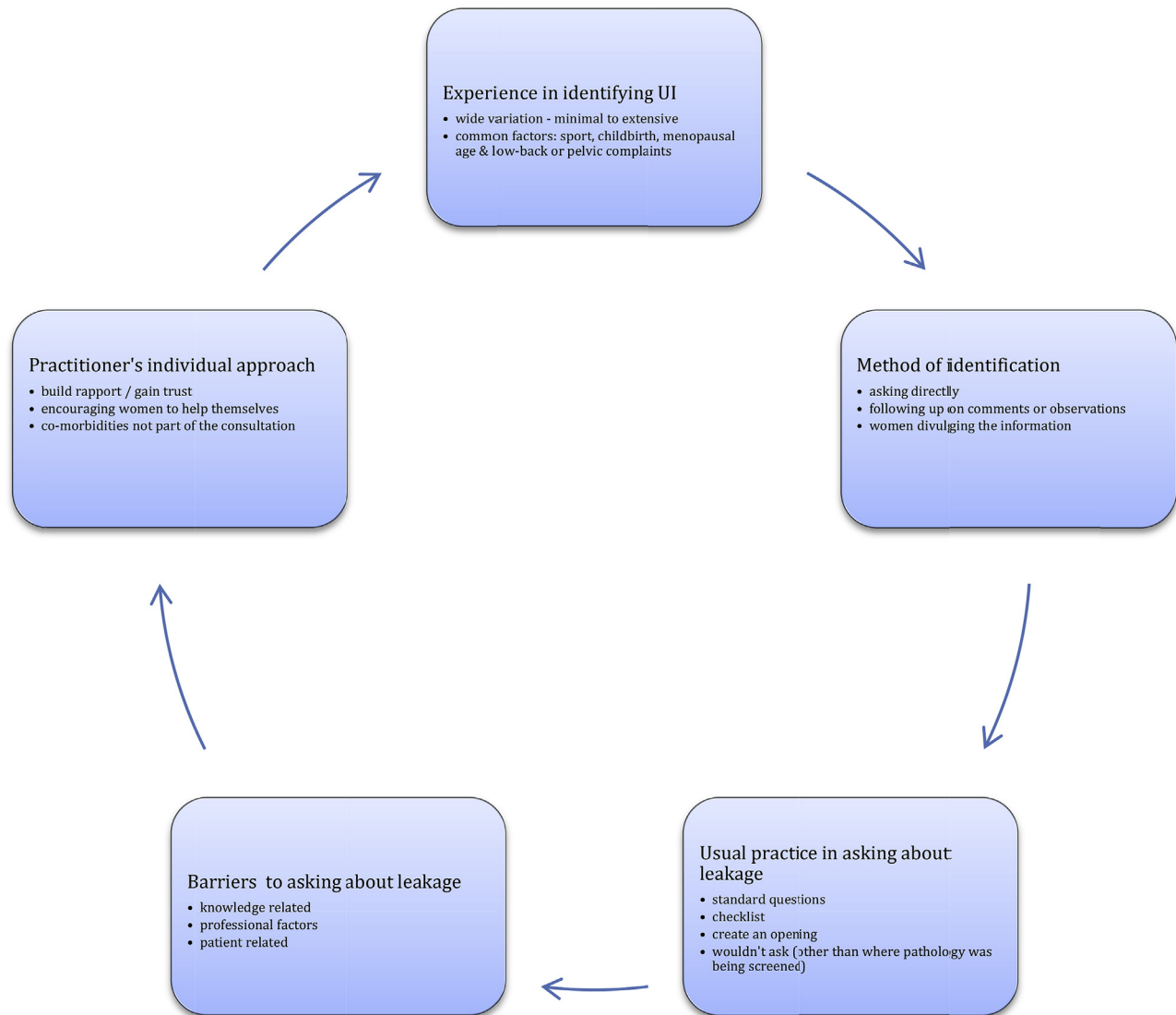
Osteopathic approach.

Osteopathic approach	
Structural	7
Structural + Cranial	3
Structural + Visceral	1

Table 3

Area of special interest.

Area of special interest	
Complex cases	2
General	3
Geriatrics	2
Mental Health	1
Obstetrics	2
Paediatrics	3
Sports	2
Translation of research into clinical practice	1
Trauma	1
Women's health	1

**Fig. 1.** Chart of linked concepts and themes.

childbirth, menopause or to low-back or pelvic complaints.

Method of identification

Identification of UI occurred either by practitioners asking women about symptoms of urinary leakage directly; by following up on comments or other observations during examination or treatment; or, by women divulging the information and mentioning their symptoms themselves.

Usual practice in asking about leakage

Not including specific questioning about urinary leakage during a routine osteopathic consultation emerged as a consistent theme. Despite this, most participants had discussed symptoms of UI with some female patients. All participants mentioned that they would ask about urinary/bladder symptoms and changes as part of the case history when screening for serious spinal pathology, but there was a range of usual practice in asking for other presentations.

Barriers to asking about leakage

Barriers to asking about leakage may be considered in the following categories:

Knowledge, professional and patient related factors.

Knowledge related factors - epidemiology and the nature and usual progression of the condition; local NHS pathways or continuity services; what to recommend; appropriate referral; lack of specific post-graduate training.

Professional factors - patients only wanting their presenting problem addressed; patients wondering why they were being asked about symptoms unrelated to their presenting condition; patients' perceptions of osteopathy; patients understanding an osteopath's remit and interest in other areas of health and well-being; embarrassment for a male practitioner asking a female patient about leakage symptoms.

Patient related factors - embarrassment generally and specifically for female patients being asked about leakage by a male practitioner; UI as a hidden problem that patients would be reluctant to discuss; lack of awareness that it was a condition that could be helped; perceptions that UI is a normal part of ageing or childbirth; patients acceptance.

Practitioner's attitude and individual approach

An individual practitioner's views in asking about UI appeared to influence their level of experience in discussing urinary leakage symptoms with their female patients. Some participants described a particular interest in helping women with this condition and went on to describe various scenarios where UI had been identified and discussed; whereas others asserted that apparently unrelated comorbidities were not considered a relevant part of the consultation.

The quotes at Table 4, show the authors' interpretation of the data; they are placed alongside each of the concepts and themes to which they were ascribed. A sample of participants were asked to

Table 4
Participants quotes.

Experience in identifying and discussing UI	wide range of experience	James "... I don't deal with this on a particularly regular basis ... I am either not eliciting it regularly enough, or my patient base does not tend to suffer from urinary incontinence." Richard "... I think maybe once or twice I can think of patients that have given the information to me." Jenny "... It does come up but it doesn't come up ... every day ..." Sonia "... I don't know how many of them would have it. But I wouldn't say I see very many. I mean I've been in practice for 25 years, and I'm talking about a handful of people." Lucy "... I used, I used to do deal with this a huge amount when I was in Cambridge. I'd done several courses on post obstetric and pelvic issues. So I did get a bit of a reputation for women's health."
	common factors: sport related	Anna "... it's 2 years since I've seen her so we updated the medical history and filled in that and no self-declaration of any bladder problems at all, and we were just talking about her running and her pain and the low back pain coming into the groin ... So that started off talking about her sport and then ended up talking more about her everyday life." Lucy "... So, they'll say, 'Oh, I used to run.'" And I'll say, 'Oh, you know, why don't you run anymore?' 'Well, it's a bit embarrassing, but' "
	common factors: age related common factors: childbirth related	Sophie "... typically (it's ladies) in their ... fifties ... that have tended to bring it up." Jenny "... She came in and volunteered the information - 'I had a really difficult time and immediately after the birth I couldn't control my bladder.'"
	common factors: linked to low-back/pelvic complaints	Sophie "... it's been more those cases, where maybe they've had lower back problems, and maybe radicular symptoms. And I've asked further questions about bowel and bladder changes. And then it's come up, 'Oh, just, you know, a bit of leakage when I cough or sneeze ...' 'Has sort of come up as a result of that.'" Sonia "... often that can be related to discal history too. I'll ask them - 'Does it hurt to cough or sneeze?' And they'll say, 'No, it doesn't hurt to cough or sneeze but, I end up wetting myself.'" Erin "... I would sort of ask, 'are you still having regular periods or have you noticed some changes? ... have you got, or do you experience any leakage?'"
Method of identification	asking directly	Anna "... You see an awful lot of patients wearing little pads and they never mention anything. They never mention any problems at all and so I clock it as an observation and often then might wait for an opportune time to discuss more general health and so on."
	following up on comments/observations	Sonia "... it came out during a conversation (about running) rather than me asking a specific question about it. If you like, she almost volunteered the information and then we had a discussion about what happens when you have big babies and your pelvic floor struggles and ... about prolapses."
	women divulging the information	James "... I fairly routinely just ask, 'Any changes to bowel or bladder?' And people nearly always say, 'No.' At that point I say, 'Any problems starting or stopping, any leaking bowel or bladder?' Jenny "... I would tailor my questions accordingly, because of that (infection) and because of the patient's age group, I would usually say, 'do you have any problems with your bladder, passing urine? And do you have any history with recurring cystitis? Do you have any problems with going more frequently?' They're my routine questions."
Usual practice in asking about leakage	standard questions	
	checklist	

Table 4 (continued)

	create an opening	Anna "... all our patients fill in the self declaration general health form which is quite detailed, there are urinary problems listed on that ... when we sit with them in the consultation we go through that." Lucy "... I'd say, 'how is your pelvis after four children? Gosh, that puts a lot of strain on the bladder' ... And they might then volunteer something." Erin "... I want to introduce the subject in a soft way, so women feel that if they have a problem, they may not want to share that in the first consultation, but I want to just plant the seed in their head, that they can if they choose to."
	wouldn't ask about symptoms or prompt a discussion (unless screening for pathology)	Kate "... I would let the patient tell me, if there was a problem in that respect. If it was something they were concerned about. I'd let them tell me about the condition rather than specifically asking them. I think I would discuss it with them if they brought it up." Richard "... I don't ever specifically ask them about urinary leakage." John "... I wouldn't go down that route, unless I felt I was drawn to do so ... normally in cases, where in our discussion, the patient has implied that there is an issue ..." Will "... I can't say I've ever asked a patient. I think maybe once or twice patients ... have given the information to me ... but not have I ever asked about it." Sonia "... But I wouldn't specifically ask, in fact I don't think I'd ever specifically ask, except in cauda equina."
	Barriers	
	knowledge related barriers	Sophie "... I don't know what to do with that information, when they've given it to me, so I kind of feel like I'm asking questions, but then I'm not going to use that information, so why bring it up in the first place ..." James "... it makes me think that I should know a bit more about what's the usual picture for urinary incontinence post-partum. What's the typical history, would it last six months, a year, would it tend to go away by itself, does it require exercise, or other interventions?." Richard "... I wouldn't feel very competent with it. I'm not sure what questions I'd ask, that would be focused and relevant, and that would help them towards getting anything done." Will "... I guess I don't feel adequately trained, I don't know what I'd be gaining by asking that question."
	Professional barriers	Kate "... I think people bring up what they feel is relevant to them at the time ... and it also depends on their belief system about osteopathy." John "... I'm embarrassed to ask them because of the fact I suspect they don't know what a broad basis an osteopath is coming from and therefore it would create a barrier between achieving a relationship with somebody ... because they would think I was being impertinent ..."
	Patient related barriers	Sonia "... and I think quite a lot of people don't talk about it because it's embarrassing, and they think it's normal for, for that age. I think quite often they'll talk about it in coffee shops ... you know, you can hear people talking about it in the swimming pool changing rooms." Sophie "... there are one or two that I have spoken to about it, and they'll just say, 'oh, just the normal amount'." Anna "... you see an awful lot of patients wearing little pads and they never mention anything." Jenny "... I would say is it is not something they would often volunteer unless you ask, so you would need to prompt that ..." Kate "... Because it's very embarrassing for a lot of people, and if they want my help with that, I would give it, but if they don't ask then I wouldn't necessarily bring it up." Erin "... I wouldn't say anyone has volunteered without me prompting." Sonia "... often that can be related to discal history too. I'll ask them - 'Does it hurt to cough or sneeze?' And they'll say, 'No, it doesn't hurt to cough or sneeze but, I end up wetting myself.'" James "... It's that tight rope you have to walk on, about getting trust in a patient, in appropriate steps at appropriate times. And if a patient comes with a headache and you're asking about their urinary habits ... they might not see the relevance, and they might ... distrust you." Will "... I think because women are potentially not coming to an osteopathic appointment for those symptoms, and me asking them may not help with the rapport building that I think is quite important in an initial osteopathic consultation."
Practitioner's individual approach	Importance of building rapport/trust	Lucy "... it often comes up through the course of the treatment, so as you get to know the patient, as the relationship builds and the trust develops. ... after a little while they will usually volunteer that information, but it, it generally takes a few treatments ..." Erin "... I think initially if we start asking the right questions, in a very empathetic way, then in my experience, I find that women respond and they may be able to open up." Lucy "... I've been interested in it for a long time ... I am quite passionate about empowering women around this, about letting them know it's really common, and very often there are things that can be done about it. And to really encourage them ..." Anna "... I think, as primary care practitioners, we could do a lot more in conversation; particularly as we have a population who is ageing but staying very active as well. The levels of activity can have such an impact, as the anatomy is not so equipped to deal with it." Erin "... I tailor my approach. I don't want to scare women off by the first consultation, I want to introduce the subject in a soft way, so women feel that if they have a problem, they may not want to share that in the first consultation, but I want to just plant the seed in their head, that they can if they choose to." Sonia "... in a basic case history there's, there's a lot to get through ... I don't think it's an appropriate question to ask, unless, unless you've got ... an index of suspicion ... you could ask thousands of things, couldn't you?" Richard "... otherwise I'm going to end up having a huge involved series of individual questions, about all other areas of function ... which I don't, which would be very long and sound weird. And I don't think that's helpful to the process."
	Encouraging women to help themselves	
	Co-morbidities not part of consultation	

Table 5
Advice provided.

Advice provided		
Referrals/ Recommendations	GP, Practice Nurse, Specialist Physiotherapist (NHS and Private), Osteopath with experience, Well-woman clinics, Health visitors.	Recommendations rather than formal referrals were made, with the onus on the patient to initiate contact.
Pelvic floor strengthening exercises	Specific techniques described to patients, e.g. Kegels, elevator technique.	Supervision when starting exercises was described and the consideration given to the possibility that a woman might not be able to correctly or confidently perform the exercises.
Other exercises	Pilates, yoga, functional exercises.	A wide range of general exercise advice was given.
Leaflets	Information on pelvic floor exercises.	How to perform the exercises, plus other advice on how to keep the pelvic floor healthy.
Smartphone apps	Pelvic floor exercise educators.	As a reminder to do pelvic floor exercises, as well as instruction on how to perform these.
Bio-feedback devices	Internal measurements of contractions.	To check that the pelvic floor is contracting correctly. Can be linked to smartphone app. Patients purchase these and monitor their own contractions at home.
Vaginal weights	Internal weights to strengthen the pelvic floor.	Patients purchase the weights from commercial suppliers and use them for an initial 12 week period to improve the strength in their pelvic floor muscles.
Awareness	Breath, visualization	Not holding the breath. Detailed descriptions of the pelvic floor and how it acts as a sling to support the pelvic organs.
Visual aids	A4 paper shaped into a cone.	To demonstrate lifting the pelvic floor with contractions.
Other advice	Lifestyle, health, seated position for passing urine, habits.	Effects of caffeine on the bladder; importance of pelvic floor health, hydration; correct position when urinating (not hovering); avoiding habits such as urinating in the shower to avoid association of urination with water.

verify that the quote chosen to illustrate a concept was a fair reflection of their intended meaning. Participants' numerical identifiers were replaced with pseudonyms when drafting [Table 4](#).

Advice and management

In addition to exploring experiences of identifying UI, this research sought to describe any advice and management that osteopaths provide for this condition. Many participants had experience of offering advice to women with UI. A brief summary of the advice and recommendations that participants in this study had given to their patients is summarised at [Table 5](#) below.

Discussion

There is a large body of research that shows that many women affected by UI do not seek help from healthcare providers, nor do they mention their symptoms when attending for appointments related to other conditions [5]. UI can have a significant impact on psychological and physical wellbeing; affecting social life, confidence, fitness and leisure activities [15]. It is a condition that responds well to simple conservative measures such as pelvic floor strengthening and bladder training [4,15], and women can be helped to manage their symptoms if the condition is identified and they are aware of their options [16]. A previous literature review identified a lack of published research pertaining to osteopathic practice in respect of women with UI [5]. Further, it is not known whether women discuss continence issues with osteopaths, nor whether osteopaths ask about symptoms as part of a routine consultation [7]. This study therefore aimed to explore osteopaths' views and experiences in identifying continence issues and to understand whether asking about UI forms part of routine osteopathic care.

Participants in this research reported a wide variation in experience, from minimal to extensive. Although UI is highly prevalent in adult women [3], minimal experience in its identification is in line with the literature from other areas of healthcare, which reports that only a small proportion of those affected by UI seek help for their condition [7]. Given that women may be reluctant to mention their symptoms when attending for healthcare appointments [17], there is perhaps a need for an approach, which encourages disclosure or prompts clinician led discussions [17]. This is particularly true given that osteopaths are most often consulted for complaints of the musculoskeletal system [18], and patients may not make the connection between UI symptoms and the complaint that they have presented with [19]. Study findings suggest a link between experience in identifying UI in women with specific conditions such as low back or pelvic pain and this might indicate that patients are more likely to make the connection with particular disorders. An alternative explanation for this finding is that low back or pelvic pain is a risk factor for UI [19–21]; this association has been reported clinically in osteopathic practice [21], and is consistent with findings in the wider healthcare settings [19].

Although this study set out initially to explore current practice in terms of *asking* about urinary leakage, the findings reveal that this is only part of the overall picture, and that identification comes about in other ways such as following up on cues and comments provided by the patient. An often reported clue to there being an issue was in women wearing pads either more often than would be expected for a menstrual cycle, or in post-menopausal women. Patient led discussions were also described, particularly where usual practice was not to ask about urinary symptoms. Some practitioners explained how they would create an opening to enable women to raise the issue and volunteer the information. There was a sense that participants felt that discussing continence

issues was easier to do once rapport and trust had been built with a patient and a consistent theme was the importance of building a relationship in order that the patient would be happy to discuss issues that might be bothering them. These themes resonate with the findings from the Open Study [18], which reported patient expectations of general osteopathic care in terms of building an interpersonal relationship with their practitioner and consultations occurring within a suitably therapeutic environment [18], and suggests that osteopaths may be well placed to identify urinary issues and to support patients in getting the help that they need. Fostering a trusting relationship and therapeutic environment where women feel comfortable disclosing information of a sensitive nature is clearly a necessity if more women are to feel able to discuss their urinary symptoms [20]. Reinforcing this principle, the importance of having a relationship with a GP and a lack thereof having a negative impact on help-seeking behaviour for UI has been reported [22], and lack of approachability a barrier to mentioning symptoms [23].

An aim of this study was to explore why osteopaths might not explicitly ask about UI. The findings revealed several barriers in this regard and these have been grouped into the following themes: knowledge related; professional factors and patient related. A strong finding, in respect of knowledge related barriers, was that an individual's perceived competence is affected by a lack of specific training in managing urinary tract dysfunction. Although most participants felt well equipped to ask UI related questions in terms of their clinical knowledge, this did not necessarily translate into the likelihood that women would be asked about symptoms. It was only those participants who had undertaken relevant post-graduate training who felt sufficiently equipped to discuss the condition and to provide advice. These findings echo a common inadequacy in healthcare education across all of the healthcare professions in identifying and managing continence problems [20,24,25]. A lack of basic training for GPs and other healthcare professionals, with little education on the management of incontinence has been reported as a probable cause of substandard care for patients with continence problems [20,24], and the key to improving continence care being to increase the quality and quantity of professional education [20].

The perception of barriers or the lack thereof, was linked to another of the main concepts – a practitioner's individual approach. There was a clear distinction between those practitioners who included a more open discussion about the urinary tract and its dysfunction and participants who did not routinely include this as part of their case history taking. Those who did not perceive barriers to asking about leakage were more likely to consider discussions about UI to be a relevant part of an osteopathic consultation. Not knowing what to recommend, or who to refer patients with UI to, was a consistently reported barrier and it may be that a better understanding of appropriate recommendations [26] or referral pathways may encourage osteopaths to consider UI symptoms more often [25,27]. It has been suggested that good care in respect of UI can be lacking in the UK and that it is common for an elderly person to be referred for continence aids with no physical examination or assessment [20]. Therefore, there is arguably a need for practitioners to be aware of care pathways and continence services in their local areas in order to be able to give the most appropriate advice and subsequent follow up, to ensure that patients have been able to access the care that they need. This is particularly true given that some GPs may be reluctant to discuss leakage symptoms [28] and good care for continence problems is inconsistent [20].

As well as an exploration of views and experiences, secondary aims of this research were to describe advice and any management that is routinely given where UI is identified. The most frequently given advice was for patients to visit their GP. In addition, many had recommended pelvic floor exercises and had given advice on fluid intake and other lifestyle adaptations. The National Institute of Clinical Excellence (NICE) provides advice on appropriate management for women affected by UI with conservative measures (lifestyle advice; self-help resources and supervised pelvic floor training) recommended as the initial course of action [26]. Other conservative options include vaginal cones and electronic devices [29]; some participants in this research had included recommendations for these in the advice that they had provided. Although this study did not specifically explore manual therapy approaches for urinary tract dysfunction, consideration of hypertonic pelvic floor and breathing pattern disorders [21] was described, as well as an awareness of the muscles and fascia of the core and pelvic floor and the reciprocal relationship between the pelvic and respiratory diaphragms [30]. Although this study did not explore all clinical manifestations of UI, such as the condition of the pelvic floor, hypertonia and pelvic organ prolapses. Many participants reported that those that had mentioned symptoms were young, sporty individuals and the reciprocal connection between the pelvic and respiratory diaphragms and the related anatomical and physiological connections are worthy of consideration as part of the whole picture [19,21,30].

Limitations

This project was undertaken as part of an educational module for a university qualification by a novice researcher. The scope was therefore limited; wider exploration of the topic might potentially reveal a greater understanding of this subject.

In qualitative studies, data saturation, where no new themes emerge, despite more participants being enrolled is the gold standard. Given the constraints, it is not possible to be sure that data saturation was reached in this study. More interviews may have revealed other views and experiences than those identified in this research.

All participants volunteered to take part and were thereby a self-selecting group of osteopaths, who may not be representative of the wider profession. Given the diversity of the sample, and the views expressed, it is considered unlikely that this will limit the validity of the findings to any great extent. However, it is important to acknowledge that this study did not seek to specifically explore hands-on management approaches to urinary tract dysfunction and that some osteopaths with a more specialist interest in this area may have different views and experiences from the findings described here.

Research recommendations

This study was a small exploratory study into a far-reaching and complex area. The findings have revealed a wide variation in usual care and in views regarding the appropriateness of considering UI as part of a routine osteopathic consultation; further quantitative work may reveal a wider range of views, which could be used to inform awareness raising strategies. The patient's perspective has not been explored in this study, many participants described how they thought their patients might feel about discussing issues of UI, but it is not known whether these perceptions truly reflect the

patient perspective. Research exploring patients' views on discussing UI with their osteopath is therefore needed.

Conclusions

This study has identified barriers to discussing UI in routine osteopathic consultations. It has revealed a wide range of experience in identifying the condition and that practitioners who had undertaken relevant post-graduate training were more likely to view discussions to be part of their remit. UI is common in women and those affected are often reluctant to seek help. It can affect many areas of psychological and physical wellbeing and symptoms can progressively worsen. It is however, a condition that responds well to conservative treatment and women can be helped to improve or eradicate their symptoms if they are given appropriate advice or management. Osteopaths are likely to encounter a very large number of women affected and are potentially well placed to ask about urinary tract dysfunction and to advise women to seek help for their symptoms. This study has revealed a general lack of awareness and knowledge regarding the condition and how best to advise those women affected by it. More awareness of the extent and nature of the condition and what advice should be given may encourage more osteopaths to consider symptoms of UI with more of the female patients presenting for routine osteopathic care.

Conflicts of interest

None declared

Funding sources

None.

Ethics

This study was reviewed by the College of Osteopaths Ethics Committee and was conducted according to the specified conditions of approval. All participants were provided with information about the study and consent was obtained prior to data collection. Participants' identities were known only to the student researcher, all data were anonymised once transcribed and pseudonyms used for participants throughout the research process and this report.

Appendix A

Overview of the framework approach (adapted from Ritchie and Lewis 2003)

Stages		
Data management	Descriptive accounts	Explanatory accounts
• Becoming familiar with the data (reading and re-reading) • Identifying initial themes/ categories Developing a coding index • Assigning data to the themes and categories in the coding index	• Summarising and synthesising the range and diversity of coded data by refining initial themes and categories • Identify association between the themes until the 'whole picture' emerges • Developing more abstract concepts	• Developing associations/ patterns within concepts and themes • Reflecting back on the original data and analytical stages in order to ensure participant accounts are accurately presented thereby reducing the possibility of misinterpretation • Interpreting and explaining the concepts and themes • Seeking wider application of concepts and themes
Continuum		

Appendix B

An exploration of osteopaths' views and experiences regarding the identification of, and provision of advice for, urinary incontinence in women: a qualitative study using framework analysis.

The aim of this research to explore osteopaths' views and experiences of identifying urinary incontinence in women and also to describe any advice that is routinely provided.

In which presentations / cases do you consider it pertinent to ask adult female patients about urinary leakage?	
view vignettes	
In which of these cases might you ask about urinary leakage?	
Do you ask about urinary leakage symptoms? (always, sometimes, never)	
yes	no
Can you describe why you think it pertinent to ask about urinary leakage routinely?	If you do not routinely ask about urinary symptoms, why is this? (e.g. feel inadequately trained / do not consider appropriate / other reasons
Can you think of one or two specific cases where you have had experience in asking about UI as part of the routine consultation?	explore reasons
If any, to what extent did UI form part of the consultation?	if you thought that a woman was bothered about symptoms of urinary incontinence, would you want to consider this?
What questions did you ask in relation to urinary leakage?	Have you discussed urinary symptoms with a woman who divulged this information without being asked?

(continued)

If you have provided advice for women with UI
 – what did this consist of? e.g. signposting to info.
 If UI is considered as part of the management plan, what does the management consist of?
 e.g. advice / treatment / referral
 To what extent do you consider yourself equipped to ask about and manage UI in female patients?
 Was the information sheet clear, do you have any questions?
 Is there anything else that you consider relevant that we haven't explored?

Appendix C

Vignettes

Beryl is a 75 year old retired nurse. She presents as a new patient complaining of a new episode of recurring hip / groin pain, which has been present on and off for the last 5 years.

Karen is a 45 year old fitness instructor. She presents as a new patient with knee pain of 3 week duration which started following a fitness class where she completed a set of deep squats with a heavy weight.

Jodie is a 25 year old new mum, 4/12 post partum. She presents as a new patient with shoulder pain.

Ruth is a 60 year old Chief Executive. She presents as a new patient with a two week history of neck and shoulder pain and stiffness.

References

- [1] ICS : http://www.ics.org/Publications/ICI_4/files-book/recommendation.pdf Accessed: 29/09/2016.
- [2] Martin JL, et al. Systematic review and evaluation of methods of assessing urinary incontinence. *Health Technol Assess* 2006;10(6). 1–132, [iii–iv].
- [3] Hunsbarr. Epidemiology of UI and FI and POP. 2014 (n.d.), http://www.ics.org/Publications/ICI_3/v1.pdf/chap5.pdf. [Accessed 29 September 2016].
- [4] Minassian VA, et al. The iceberg of health care utilization in women with urinary incontinence. *Int UrogynEcol J* 2012;23(8):1087–93.
- [5] Robinson M. What are the factors affecting help-seeking behaviour of women with urinary incontinence in the UK?. Staffordshire University; 2015. Unpublished M.Ost literature review.
- [6] Davis K, Kumar D. Pelvic floor dysfunction: a conceptual framework for collaborative patient-centred care. *J Adv Nurs* 2003;43(6):555–68.
- [7] Robinson M, Humpage C. Factors affecting help-seeking behaviour of women with urinary incontinence; a commentary providing insights for osteopaths. *Int J Osteopath Med* 2016;21:51–7.
- [8] Kane M. Research made easy in complementary and alternative medicine. London, UK: School of Integrated Health, University of Westminster; 2004.
- [9] Ritchie J, Lewis J. Qualitative research practice: a guide for social science students and researchers. London: Sage; 2003.
- [10] Gale NK, et al. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Med Res Meth* 2013;13:117.
- [11] Collingridge DS, Gantt EE. The quality of qualitative research. *Am J Med Qual* 2008;23(5):389–95. the official journal of the American College of Medical Quality.
- [12] Health Herts http://www.health.herts.ac.uk/immunology/qualitative%20research/semistructured_interviews.htm Accessed 28/09/2016.
- [13] University of Surrey: <http://sru.soc.surrey.ac.uk/SRU25.html> Accessed 28/09/2016.
- [14] Thomas DR. A general inductive approach for qualitative data analysis. *Am J Eval* 2003;27(2):237–46. <http://doi.org/10.1177/1098214005283748>.
- [15] Dumoulin C, Hay-Smith J. Pelvic floor muscle training versus no treatment, or inactive control treatments, for urinary incontinence in women. *Cochrane Database Syst Rev* 2010;(1). CD005654.
- [16] Tannenbaum C, Agnew R, Benedetti A, Thomas D, van den Heuvel E. Effectiveness of continence promotion for older women via community organisations: a cluster randomised trial. *Br Med J (BMJ) Open* 2013;3(12). e004135.
- [17] Schüssler-Florenza RSM, Gangnon RE, Chewning B, Wald A. Increasing discussion rates of incontinence in primary care: a randomized controlled trial. *J Wom Health* 2015;24(11):940–9. <http://doi.org/10.1089/jwh.2015.5230>.
- [18] Leach CMJ, Mandy A, Hankins M, Bottomley LM, Cross V, Fawkes CA, et al. Patients' expectations of private osteopathic care in the UK: a national survey of patients. *BMC Compl Alternative Med* 2013;13:122. <http://doi.org/10.1186/1472-6882-13-122>.
- [19] Menezes M, Pereira M, Hextall A. Predictors of female urinary incontinence at midlife and beyond. *Maturitas* 2010;65(2):167–71.
- [20] Newman, D.K., Ee, C. H., Gordon, D., & WILLIAMS Consultants, Cahill, K. B. (n.d.). Continence promotion, education & primary prevention. Retrieved from https://www.ics.org/publications/ici_4/files-book/comite-21.pdf.
- [21] Chaitow L. Chronic pelvic pain: pelvic floor problems, sacro-iliac dysfunction and the trigger point connection. *J Bodyw Mov Ther* 2007;11(4):327–39.
- [22] Hale S, Grogan S, Willott S. "Getting on with it": women's experiences of coping with urinary tract problems. *Qual Res Psychol* 2009;6(3):203–18.
- [23] Mason L, Glenn S, Walton I, Hughes C. Women's reluctance to seek help for stress incontinence during pregnancy and following childbirth. *Midwifery* 2001;17(3):212–21. <http://doi.org/10.1054/midw.2001.0259>.
- [24] McClurg D, Cheater FM, Eustice S, Burke J, Jamieson K, Hagen S. A multi-professional UK wide survey of undergraduate continence education. *Neurourol Urodyn* 2013;32(3):224–9. <http://doi.org/10.1002/nau.22284>.
- [25] Wagg Adrian S, et al. Developing an internationally-applicable service specification for continence care: systematic review, evidence synthesis and expert consensus. *Ed. Terence J. Quinn. PLoS One* 2014;9(8). e104129.
- [26] National Institute for Clinical Excellence (NICE) Clinical Knowledge Summaries (CKS): <http://cks.nice.org.uk/incontinence-urinary-in-women#!management> Accessed: 29/09/2016.
- [27] Roe B, Doll H, Wilson K. Help seeking behaviour and health and social services utilisation by people suffering from urinary incontinence. *Int J Nurs Stud* 1999;36(3):245–53. [http://doi.org/10.1016/S0020-7489\(99\)00020-6](http://doi.org/10.1016/S0020-7489(99)00020-6).
- [28] MacKay K, Hemmett L. Needs assessment of women with urinary incontinence in a district health authority. *Br J Gen Pract: J Roy Coll Gen Pract* 2001;51(471):801–4.
- [29] Thakar R, Stanton S. Regular review: management of urinary incontinence in women. *Br. Med. J. (Clin. Res. Ed.)* 2000;321(7272):1326–31.
- [30] Bordonni B, Marelli F. The fascial system and exercise intolerance in patients with chronic heart failure: hypothesis of osteopathic treatment. *J Multidiscip Healthc* 2015;8:489–94. <http://doi.org/10.2147/JMDH.S94702>.