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Referral patterns to continence physiotherapy services for patients with chronic respiratory conditions

Hannah Brien

Cath Bunting

The University of Notre Dame Australia, cath.bunting@nd.edu.au

Shane Patman

The University of Notre Dame Australia, shane.patman@nd.edu.au

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ABSTRACT

Chronic respiratory conditions are a widely recognised risk factor for urinary incontinence and current chronic respiratory condition management guidelines state that patients should be screened for urinary incontinence and referred to continence physiotherapists for treatment. This study aimed to firstly confirm anecdotal sentiment that referrals of these patients to continence physiotherapists are low; and, secondly, to investigate barriers to the referral of these patients. Two online de novo surveys were disseminated across the metropolitan area of Perth, Western Australia: one to continence physiotherapists (Survey A) to investigate referral rates, and the other to respiratory physiotherapists, respiratory physicians and general practitioner clinics (Survey B) to investigate barriers to referral for continence management. Survey A received 30 responses and confirmed the expected low referral rate. Survey B received 41 responses, with 31% of respondents stating they “never” or “rarely” inquired about incontinence with these patients. Reported referral barriers included time constraints (50%) and a lack of prioritisation of urinary incontinence (53%). Survey findings also indicated urinary incontinence continues to carry a stigma among clinicians and patients; therefore, more should be done in order to promote an open discussion of urinary incontinence. Clinicians also require support to prioritise management of urinary incontinence with their patients. This study is one of the first to explore barriers to screening and referral in this patient group, and the issue appears to be multifactorial. Further research needs to be directed at exploring the issue further and developing strategies to address the identified barriers.

Keywords: chronic respiratory conditions, urinary incontinence, referral, physiotherapy

INTRODUCTION

Chronic cough is often a symptom of chronic respiratory conditions and is recognised as a risk factor for the development of urinary incontinence (UI) or as a factor which may worsen existing UI¹⁻³. Within the general population, the prevalence of UI has been found to be approximately 21%⁴. The Australian Institute of Health and Welfare reports the prevalence of chronic respiratory conditions to be 31%⁵. A Swedish study of patients with chronic obstructive pulmonary disease (COPD) found that among this patient population, 50% of women and 30% of men experienced UI⁶. Studies involving middle-aged men with impaired respiratory function in Japan, and girls in the United Kingdom with cystic fibrosis and asthma, report similar correlations^{7,8}.

Urinary incontinence is associated with a decrease in quality of life (QoL) and increased prevalence of depression and social isolation⁹⁻¹¹. Symptoms of UI also impact on a person's self-management of their chronic respiratory condition, resulting in reluctance to participate in exercise and use airway clearance techniques, which may lead to an increased risk of complications such as pulmonary infections¹².

Physiotherapists (PTs) have a central role in the prevention and treatment of UI, particularly with pelvic

Hannah Brien*

School of Physiotherapy
University of Notre Dame Australia, Fremantle, WA, Australia
Email hannah.brien1@my.nd.edu.au

Cath Bunting

School of Physiotherapy
University of Notre Dame Australia, Fremantle, WA, Australia

Shane Patman

Specialist Cardiorespiratory Physiotherapist
School of Physiotherapy
University of Notre Dame Australia, Fremantle, WA, Australia

* Author for correspondence

Competing interest statement

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floor muscle training (PFMT), a first-line conservative treatment for women with stress UI¹³. The COPD-X guidelines, developed for both Australian and New Zealand healthcare and education providers, recommend patient education and self-management strategies be taught with reference to symptoms of UI¹⁴. The British Thoracic Society's guidelines for physiotherapy management of respiratory patients explicitly state that PTs should ask patients with chronic respiratory conditions about continence and, if incontinence is reported, refer to a continence PT and, even if no incontinence is reported, teach PFMT¹².

This study was conducted following an informal preliminary scoping exercise in the metropolitan area of Perth, Western Australia (WA) which indicated that referral rates of patients with chronic respiratory conditions to continence PTs was low. The aims of the study were to formally investigate the referral rates of these patients and identify possible barriers to referral.

To the authors' knowledge, referral patterns in this patient group have not been studied previously in Australia, and this would form the first research to look directly at the referral of these patients for continence management. Through identification of potential barriers to referral, the study may promote further research into possible strategies and solutions.

METHODS

Design

Two de novo surveys were developed. Survey A was created to investigate if people with chronic respiratory conditions were being referred to continence PTs. The second survey, Survey B, was created to examine the barriers that may prevent the referral of this patient group to continence PTs or continence services.

For the purposes of the survey, 'formal' referrals were defined as referrals made to a hospital continence clinic or letters of referral to a specific private continence PT or physiotherapy clinic. 'Informal' referrals were defined as advice to seek a continence PT, either of the patient's choice or with a recommendation to see a specific practice or practitioner.

Both surveys were anonymous and delivered using an online survey platform (SurveyMonkey Europe UC; Dublin, Ireland). Each survey was comprised of a combination of multiple choice and checkbox style questions, with options to provide open responses to some questions. Survey A contained 15 questions and Survey B contained 23 questions. Each survey used survey logic to ensure that participants were only asked questions that were relevant and appropriate, and therefore the number of participants who answered each question varied. The individual n value for each question will be indicated when results are presented. Both surveys were piloted prior to dissemination and were open to participants from 20 April to 28 May 2018.

Participants

Potential participants were identified using publicly available information, for example information on the Australian Physiotherapy Association website and professional networks, as well as utilising the snowball effect.

For Survey A, eligible participants were PTs working in the area of continence management. For Survey B, eligible participants were those who identified as PTs predominantly working with patients diagnosed with chronic respiratory conditions, general practitioners (GPs) and respiratory physicians. Eligible participants were those working in the metropolitan area of Perth, WA.

Process

An introductory email, containing the participant information sheet and a link to the survey, was sent to identified potential participants, senior clinical hospital staff and GP clinics. Participation in each survey was voluntary and completion of the questionnaire was evidence of informed consent to participate.

Ethical consideration

Approval for the research was obtained from the Human Research Ethics Committee (HREC number 017190F) of the University of Notre Dame Australia, Fremantle, WA.

Data analysis

Following the collection of surveys, basic descriptive statistics were obtained via SurveyMonkey. Answers to open-ended questions were analysed directly from SurveyMonkey and were collated into themes by the researchers.

RESULTS

As participants were encouraged to forward on the invitation emails, the final number of those who received the survey link is unknown. Initially, Survey A was sent to 76 continence PTs, and Survey B was sent to 10 respiratory physicians, three respiratory medical head of departments, 12 respiratory PTs or physiotherapy head of departments, and 48 GP practices.

As the number of surveys received is unknown, only completion rate has been reported. Survey A received 32 consenting responses, of which 30 completed the survey, giving a completion rate of 94%. Survey B received 43 responses, six from medical doctors (15%) and 35 from PTs (85%). Two respondents consented to participate but did not complete any further questions, resulting in 41 completed surveys and a completion rate of 95%.

Survey A

The majority of continence PT participants identified their main area of practice as men's, women's and pelvic health physiotherapy (n=19/30, 63%), and all participants had post-graduate qualifications relevant to continence care.

Table 1. Survey B demographics (n=41).

	n (%)	
Primary area of practice*	Respiratory	27 (66%)
	General practice	2 (5%)
	Aged care	6 (15%)
	General medicine	8 (20%)
	Musculoskeletal	2 (5%)
	Surgical	2 (5%)
	Rehabilitation	2 (5%)
Primary work context*	Inpatient tertiary hospital ward	18 (44%)
	Inpatient secondary hospital ward	18 (44%)
	Tertiary hospital outpatient clinic	7 (17%)
	Secondary hospital outpatient clinic	6 (15%)
	Private practice	6 (15%)
	Post-graduate studies	2 (5%)

* Participants were able to give multiple responses to question.

The majority of participants (n=21/29, 72%) stated they had not received any 'formal' referrals of patients with chronic respiratory conditions for continence care within the last month and 60% (n=15/25) of participants stated they had not received any 'informal' referrals within the last month. Of those participants who did receive 'formal' and/or 'informal' referrals, the majority of referrals came from GPs (n=9/13, 69%).

Survey B

Areas of practice and practice context for Survey B participants are detailed in Table 1. The majority of participants had more than 5 years of experience in their current field (n=24/41, 59%). The number of patients with a diagnosis of a chronic respiratory condition seen by the participants varied; however, 9/40 (23%) reported they saw five to ten patients in a typical week.

A third of participants (n=12/39, 31%), stated they "never" or "rarely" inquired about UI if a person presented with a chronic respiratory condition. Barriers to inquiry regarding incontinence screening were multifactorial and are listed in Table 2.

Participants who answered that they "often" inquired about UI (n=7/39, 18%), stated they followed up with a referral to a specialist health professional, for example a continence PT. Two participants responded that they provided advice themselves and three stated they provided educational resources.

When asked whose responsibility participants thought it was for screening patients with chronic respiratory conditions for UI, many responded that it was the

responsibility of every health professional to screen patients for UI (n=20/39, 51%). However, there were a variety of other responses, including the contact/admitting professional (n=4/39, 10%), PTs and the medical team (n=4/39, 10%), PTs and occupational therapists (n=3/39, 8%), the medical team alone (n=2/39, 5%), and the patient themselves (n=1/39, 3%) (see Appendix 1, Question 16).

The responsibility for referral to a continence health professional was seen by many participants to be the duty of every health professional (n=18/39, 46%); however, other responses stated that it should be the clinician who first screened for UI (n=7/39, 18%) or PTs and medical team (n=7/39, 18%) (see Appendix 1, Question 17).

Eight key themes were identified by participants as barriers to referral (Box 1).

Two thirds of all participants (n=26/39, 67%), had not accessed or were aware of any clinician resources or educational tools on the topic of UI in patients with chronic respiratory conditions. Of the participants who had accessed such resources (n=13/39, 33%), only five (38%) thought that these were sufficient for the needs of themselves and/or their patients. Participant recommendations to overcome the perceived barriers were grouped into nine key themes and are outlined in Box 2.

DISCUSSION

The results from Survey A corroborated anecdotal information that referral rates for continence management in patients with both chronic respiratory

Table 2. Reported barriers to incontinence screening*.

	Barriers	n (%)
Questionnaire-directed responses	Privacy issues due to treating environment	7 (22%)
	Time constraints	16 (50%)
	Unsure what to do with information gained	4 (13%)
	Potential for embarrassment for patient	8 (25%)
	Potential for embarrassment for practitioner	1 (3%)
	Less of a priority amongst patient's other needs	17 (53%)
	Concern regarding offending patient	2 (6%)
	Unsure what questions to ask	4 (13%)
	Unsure how to broach subject	5 (16%)
	Concern regarding sensitivity of topic	7 (22%)
Additional clinician responses	Unaware of the relevance of UI to chronic respiratory conditions	2 (6%)
	Patients already screened by other clinicians	3 (9%)
	Concern over level of rapport with patient	1 (3%)
	Did not occur to inquire	1 (3%)
	Patient acutely unwell	2 (6%)

* Responses to Question 9 (see Appendix 1); participants able to give multiple responses to question.

conditions and UI are low. The reasons preventing the appropriate screening and referral of these patients appear to be multifactorial.

Survey B results identified barriers to screening and referral processes. Respondents identified potential strategies to improve the patients' lived experience. The two most frequently reported barriers to screening for UI were time constraints and a lack of prioritisation of UI, where participants felt UI was less of a priority among the other concerns of the patient. Potential embarrassment for the patient and the clinician was also reported as a screening barrier, indicating there is still a stigma surrounding the topic.

Variation in the opinion of whose responsibility the screening and referral of patients for UI management is was evident and included the suggestion that it was a patient responsibility. However, it should be acknowledged that UI is poorly understood and studies have shown that less than a third of people with incontinence seek treatment¹⁵. It is often believed to be a normal part of ageing and is not able to be treated¹⁶⁻¹⁸.

One of the barriers to referral identified by participants was that people with respiratory conditions and UI may not consent to another referral as they were already in contact with many other health services. This may indicate that this patient cohort does not prioritise UI due to health service fatigue, poor health literacy or stigma. Long waiting lists to access continence PT services or the perception that continence PT services

are not available were identified in this study as barriers to referral.

Improved health literacy among people who have a chronic respiratory condition and UI – that includes information about treatment options, how to access services and the role of continence PTs or continence nurses – could increase uptake of services. Education aimed at patients and the wider community should be used to change the attitudes surrounding UI, improve understanding of UI, and reverse the thinking that UI symptoms are normal, in order to improve prioritisation of UI by patients. Health departments and national continence and respiratory specialist groups could introduce public health campaigns that aim to drive a more open conversation around UI in order to reduce the associated stigma that prevents patients discussing their experience with UI. Current campaigns, which target awareness of UI in a more general sense, could have a greater focus on UI in patients with chronic respiratory conditions.

As per national and international guidelines, all health professionals, including respiratory PTs, medical staff, and other allied health staff, should screen clients for UI and refer where appropriate. Respondents in this current study recommended nine key strategies, including developing an online referral process, promoting a screening tool specific to respiratory conditions and UI, and ensuring more readily available contact information for continence PTs. Although resources exist in the form of application software, websites and physical

Box 1. Participant-reported factors impeding referral process.

- Poor patient compliance
- Poor patient understanding of UI
- Long waiting lists
- Being unsure of how/where/to whom to refer
- Lack of service availability
- Funding issues/high patient costs
- Time constraints
- UI not prioritised by medical staff or other clinicians

publications, many clinicians were unaware of them or failed to access them. Survey respondents indicated that they need resources that give information on how and where to refer their patients. Participants also highlighted a need for support and training to instil greater confidence in discussing and managing UI with their patients. Participants indicated education that increases clinician understanding of the impact of UI on QoL, especially in patients with chronic respiratory conditions, would enable them to justify an increased prioritisation of UI. Additionally, inpatient respiratory PTs and/or continence nurses could be supported to provide initial preventative PFMT to these patients.

In addition, national and local organisations or specialist groups could play a more significant role in improving screening and referral rates. The creation of a web resource with guideline documents and patient resources would allow quick and easy access for healthcare providers. They could also provide a database of local services with information on referral pathways. The addition of continence PT services to multidisciplinary respiratory clinics could be considered in order to reduce healthcare fatigue and improve the accessibility of continence PTs. It could be investigated as to whether this would improve referral rates.

Limitations

Limitations to this study include the small sample size and short time period, the small geographical location where it was performed, and the lack of GP responses to the survey. A further limitation is that the patient perspective was not obtained, as patient understanding appears to be a factor in the referral to continence PTs. The study was limited to clinicians who work with adults and had a focus on UI. The authors note that the experience of adolescent patients or those with faecal incontinence was not investigated. Additionally, due to sampling methods and the snowball effect, the final number of those who received the link to each survey during dissemination is unknown.

Box 2. Participant recommendations to overcome barriers to referral.

- Improve availability and awareness of services
- Increase knowledge of referral process
- Ensure more readily available contact information for continence PTs
- Consider ways to make the process quicker/simpler/more streamlined
- Develop an online referral process
- Offer open referrals, including self-referral
- Promote screening tools, e.g. questionnaires
- Increase education for providers and patients
- Increase discussion around topic

CONCLUSION

Results of the study indicate that patients with chronic respiratory conditions were not being routinely screened for UI and referred on to continence PTs, and that UI was not a priority issue for clinicians nor patients. From the responses to Survey B it is concluded that all clinicians need greater support, such as improved training and resources, to enable them to prioritise UI management in accordance with current guidelines. Professional bodies could assist by working to improve the public discussion surrounding UI in order to reduce the associated stigma, reverse the thinking that UI is normal, and improve understanding of UI in the community. These organisations could promote the services of continence PTs to both consumers and clinicians so that patients have better access to continence PT services.

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Appendix 1. Survey B questionnaire. Respiratory specialist referral to continence services.

Multiple choice options have been provided below each question where they were used. All other questions were open questions.

1. Please click an option below:
 - I have understood all information provided to me about this survey/research project and I consent to take part.
 - I do not wish to take part in this survey.
2. What is your current job title (not including specialty area)?
 - Medical Doctor
 - Physiotherapist
 - Registered Nurse
 - Other (please specify)
3. How many years have you been practising in your current profession?
 - 0–5 years
 - 6–10 years
 - 11–15 years
 - 15–20 years
 - 20+ years
4. In a typical working **week**, how many hours do you work in the following environments? (Please provide an answer to all that apply)
 - Inpatient Tertiary Hospital Ward
 - Inpatient Secondary Hospital Ward
 - Tertiary Hospital Outpatient Clinic
 - Secondary Hospital Outpatient Clinic
 - Private Practice/Clinic
 - Community Practice
 - Residential Aged Care Facility
 - Other (please specify)
5. What would you stipulate to be your main area of practice?
 - Respiratory
 - General Practice
 - Aged Care
 - General Medicine
 - Other (please specify)
6. How many years have you been practising in this primary area of practice?
 - 0–5 years
 - 6–10 years
 - 11–15 years
 - 15+ years
7. In a typical working **week**, how many patients do you see with a diagnosed chronic respiratory condition?
 - I do not see patients with chronic respiratory conditions at all.
 - 1–5 patients.
 - 5–10 patients.
 - 10–20 patients.
 - 20–30 patients.
 - 30–40 patients.
 - 40–50 patients.
 - 50+ patients.
8. How often do you inquire about symptoms of incontinence in patients with chronic respiratory conditions?
 - Never.
 - Rarely.
 - Sometimes.
 - Often.
 - Always.
9. What do you feel prevents you from inquiring about incontinence with chronic respiratory patients?
 - Privacy issues due to treating environment
 - Lack of time/time constraints
 - Unsure what to do with information gained
 - Potential for embarrassment for patient
 - Potential for embarrassment for practitioner
 - Less of a priority amongst patient's other needs
 - Concern regarding offending patient
 - Unsure what questions to ask
 - Unsure how to broach subject
 - Concern regarding sensitivity of topic
 - Other (please specify)
10. If a patient with a chronic respiratory condition reports symptom of incontinence; what is your usual course of action?
 - Provide advice yourself
 - Refer patient to a web resource
 - Refer patient on to a specialist health professional
 - Do nothing
 - Provide patient with an educational pamphlet/brochure/resource
 - Other (please specify)

11. Do you ever refer a patient with chronic respiratory conditions who has incontinence symptoms to a specialist continence physiotherapist (either a formal referral or a recommendation to attend a clinic)?
 - Yes
 - No
 - I refer somewhere else (please describe where/to whom you refer these patients)
12. In a typical **month**, how many **formal** referrals do you make to continence physiotherapists (i.e. formal referral to a hospital continence clinic, or letter of referral to a specific private continence physiotherapist/physiotherapy clinic)?
 - 0 (none at all).
 - 1-5
 - 5-10
 - 10-15
 - 15-20
 - 20-25
 - 25-30
 - 30+
13. In a typical **month**, how many **informal** referrals do you make to continence physiotherapists (i.e. advise the patient to seek out a continence physiotherapist of their own choice, with or without specific practice or practitioner recommendations)?
 - 0 (none at all).
 - 1-5
 - 5-10
 - 10-15
 - 15-20
 - 20-25
 - 25-30
 - 30+
14. What guides your decision to refer chronic respiratory patients with incontinence to continence specialist physiotherapists?
 - Any report of incontinence
 - Incontinence not improving with advice alone
 - Incontinence not improving after the provision of written information/handouts
 - Patient concern over incontinence
 - Patient request
 - Other (please specify)
15. What influences/guides your decision to not refer chronic respiratory patients with incontinence to continence specific physiotherapists?
 - Unsure where/to whom to refer
 - Unsure there would be any benefit
 - Unsure how to refer
 - Too time consuming
 - Referral process too difficult
 - Waiting lists are too long
 - Other (please specify)
16. Whose responsibility do you think it is for **screening** patients with chronic respiratory conditions for incontinence?
17. Whose responsibility do you think it is for **onward referring** to specialist continence services/physiotherapists?
18. Is there anything you feel makes the **process** of referring chronic respiratory patients with incontinence to continence specific physiotherapists **easy**?
19. Is there anything you feel makes the **process** of referring chronic respiratory patients with incontinence to continence specific physiotherapists **challenging**?
20. Are there any changes you think would enable this process to be easier?
21. Are there any clinician resources/education tools that you have been given/accessed/seen that provide education on incontinence in chronic respiratory patients?
 - Yes
 - No
22. Please briefly identify/describe these resources. For example, in-house leaflets; handouts from appropriate organisations e.g. Continence Foundation of Australia, Australian Heart and Lung association; Health Department resources; websites.
23. Did you/do you feel these resources have been sufficient for the needs of yourself and your patients? Why/why not?