

University of Groningen

Perspective of Dutch healthcare professionals on care for female urinary incontinence

van Boxtel, Jorke; Wessels, Nienke J.; Ruiters, Eline J.; Loohuis, Anne M.M.; Metting, Esther I.; van der Worp, Henk; Blanker, Marco H.

Published in:
Contenance

DOI:
[10.1016/j.cont.2023.100585](https://doi.org/10.1016/j.cont.2023.100585)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2023

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

van Boxtel, J., Wessels, N. J., Ruiters, E. J., Loohuis, A. M. M., Metting, E. I., van der Worp, H., & Blanker, M. H. (2023). Perspective of Dutch healthcare professionals on care for female urinary incontinence: A mixed-methods study. *Contenance*, 6, Article 100585. <https://doi.org/10.1016/j.cont.2023.100585>

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.



Perspective of Dutch healthcare professionals on care for female urinary incontinence: A mixed-methods study

Jorke van Boxtel^a, Nienke J. Wessels^a, Eline J. Ruiter^a, Anne M.M. Loohuis^a, Esther I. Metting^b, Henk van der Worp^a, Marco H. Blanker^{a,*}

^a Department of General Practice and Elderly Care Medicine, University Medical Centre Groningen, University of Groningen, FA21, PO Box 196, 9700 AD, Groningen, The Netherlands

^b Faculty of Economics and Business, University Medical Centre Groningen, University of Groningen, Nettelbosje 2, 9747 AE Groningen, The Netherlands

ARTICLE INFO

Keywords:

Urinary incontinence
Health care organization
Primary care

ABSTRACT

Introduction and hypothesis : Health care professionals (HCP) can reveal practical recommendations to improve processes and address challenges in the care of women with urinary incontinence (UI) in the Netherlands.

Methods : We conducted an exploratory, sequential, mixed-methods study among HCPs, using the outcomes of six focus group sessions (30 HCPs) to inform a subsequent survey. HCPs included general practitioners (GPs), practice assistants (PAs), pelvic physiotherapists (PPTs), and urologists and gynecologists (UGs).

Results : The main themes arising from the six focus group sessions (with 6 GPs, 7 PAs, 6 (resident) UGs, 8 PPTs, and 7 PPTs) were “identification of UI,” “current state of care,” and “guiding patients through the healthcare system.” The survey respondents included 351 PAs, 124 GPs, 75 PPTs, and 183 UGs. Of these 741 respondents, 72.8% (strongly) agreed that the identification of UI in general practice required improvement and 60% confirmed the need for further education on this topic. Most HCPs (83.1%) found it useful to offer women a patient information leaflet when buying incontinence products, but less useful to ask about UI routinely in specific scenarios, and most (75%) agreed that a multidisciplinary guideline could improve healthcare. Interestingly, 86% of PPTs and 21% of UGs advocated referral to a PPT before referral to a specialist, while 87% of PPTs wanted primary care services to offer a UI consultation hour and 36% of the GPs (strongly) disagreed.

Conclusion : Poor UI identification in primary care and a lack of patient guidance through the health care system hamper continence care provision.

1. Introduction

Urinary incontinence (UI) is a common problem among women [1], and frequently receives suboptimal care [2,3]. Many factors contribute to poor outcomes in the Netherlands and other Western countries. On the one hand, women receive care from different health care professional (HCP) groups, including general practitioners (GPs), pelvic physiotherapists (PPT), urologists, and gynecologists. On the other hand, that care provision is complicated by not only barriers to demand [1,4] but also limited adherence to guidelines [2], lack of time and knowledge, and even therapeutic nihilism (i.e., skepticism about the benefit of treatments) among GPs [1,5,6]. Guidelines and working practices also vary considerably. While the need to strive for collaboration between different professionals may seem obvious [7], we do not know either the extent to which this currently happens in continence care or how different HCPs view the care of women with UI. Indeed,

previous research has mainly focused on treatment in each setting in isolation, whereas patients often receive care in multiple settings. Also, earlier research in the Netherlands was done nearly two decades ago [2,4–6].

We hypothesized that exploring the opinions of different HCPs involved in UI care could uncover solutions to existing challenges and may improve patient outcomes. Therefore, we aimed to identify recommendations specifically for improving clinical processes and addressing the challenges of care continuity for UI.

2. Materials and methods

We used an exploratory, sequential, mixed-methods design [8], to identify HCP opinions across the main groups involved in the care of UI in the Netherlands. This involved a qualitative phase of small focus group sessions that informed the development of a questionnaire for the quantitative phase, which we distributed to a large sample of HCPs.

* Corresponding author.

E-mail address: m.h.blanker@umcg.nl (M.H. Blanker).

In September and October 2017, we contacted different HCPs by e-mail and social media to seek their participation in focus group sessions, taking care to include GPs, practice assistants (PAs), PPTs, and urologists and gynecologists (UGs). Two researchers attended each session, with one conducting the interviews and the other making notes about non-verbal communication. The semi-structured interviews in each session focused on the opinions and experiences of HCPs regarding the current care pathway, informed by relevant literature and previous research by our group [9]. Specifically, we asked HCPs to give their opinions on the current state of UI care, their experiences with eHealth in general, as well as eHealth applications to treat UI, and their recommendations for the development of such an app in the future [10].

The sessions were audio recorded and transcribed verbatim. Three researchers (NW, ER, JVB) independently analyzed the interviews using the software program Nvivo, coding the raw data inductively from a coding tree based on the interview topics. The researchers met regularly and discussed, added, changed, or removed codes until consensus.

We used the themes that emerged from the focus groups to create questionnaire statements to be answered on a Likert or Likert-type scales. The questionnaire was developed according to the guidance of the Dutch Institute for Research in Health Care and built in Qualtrics survey software (Qualtrics Inc., v7546, Provo, UT). We adjusted the questionnaire content by conducting a pilot and assessing validity. Face validity was tested by asking independent researchers to give their opinions about questionnaire length, legibility, and ease of use. Content validity was tested by asking the focus group attendees to comment on the completeness, representativeness, and balance of the sub-themes. Changes were integrated after each stage.

For survey distribution, the NVDA (Dutch association of medical assistants), the NVOG (Dutch association for obstetrics and gynecology), and the NVU (Dutch association of urology) shared links to the online questionnaire via social media (LinkedIn and Twitter), journals, websites, and member apps. Questionnaire responses were collected between March 2018 and May 2018, and the collected data were exported to IBM SPSS version 26.0 (IBM Corp., Armonk, NY, USA) for descriptive statistics.

We linked the data from the qualitative and quantitative strands through the methods described above and by connecting the results of both the focus group sessions and the questionnaires in a joint display at the interpretation level. This helps to draw out new insights beyond the information received from the separate strands [11].

According to Dutch law, this type of study needs no ethical approval.

3. Results

We performed five focus group sessions with 6 GPs, 7 PAs, 6 (resident) UGs, 8 PPTs, and 7 PPTs. The main themes arising from these sessions were “identification of UI”, “current state of care”, and “guiding patients through the healthcare system”. In total, 741 HCPs completed the questionnaire, including 351 PAs, 124 GPs, 75 PPTs, and 183 UGs.

In the following paragraphs, we present the main themes and sub-topics, including the results from the focus groups and questionnaires.

3.1. Theme 1: identification of UI

The joint display in Table 1 shows this theme’s integrated summary for three topics.

3.1.1. Topic 1a: Delay in seeking healthcare

Focus groups

All sessions revealed that little attention is generally paid to UI, both in clinical practice and by wider society. Limited information

availability contributes to the taboo among women, with different HCPs reporting delays in seeking help. GPs, PAs, and UGs said that many women do not see their complaints as “a big problem” and think it is “part of the deal”. Consistent with this, a GP stated that “many patients think there’s nothing to do about UI” and a PA suggested that the free availability of incontinence products leads to delays in women seeking help. GPs agreed on the importance of an open attitude and vigilance for even minor signals because women may present for another complaint and mention symptoms of UI in passing. One GP stated, “It’s important to have an open attitude as a care provider; a patient needs to know that they can come to you to talk about their UI”. Another GP indicated that he actively invites women for consultation if they repeatedly have negative urine sediments. PAs also reported that they often discover UI incidentally during a conversation. Elsewhere, one UG stated that women rarely discuss UI with their GP, and one PPT observed that active questioning about UI differs by GP.

Questionnaire

Of the survey respondents, 72.8% (n = 596) (strongly) agreed with the statement that the identification of UI in general practice needs to be improved (Table 1).

3.1.2. Topic 1b: Updating skills for HCP

Focus groups

A UG indicated that increasing UI care provision in primary care could improve service efficiency. However, a PPT stated that “the diagnosis and referral of UI is poor in primary care”. Focus group sessions also revealed that GPs and PAs want further training in the care of UI. For example, a GP stated that “there is a need for GP refresher courses”, while GPs and PPTs both indicated that GPs require further training. PAs wanted more information about the different incontinence products and treatment options.

Questionnaire

The need for education to update skills and knowledge of UI care was confirmed in the questionnaire, with 60% (n = 327) (strongly) agreeing (Table 1).

3.1.3. Topic 1c: Suggestions to improve identification

Focus groups

Most PPTs and UGs agreed that women could be routinely asked about UI in primary care settings at specified opportunities (e.g., during blood pressure and diabetes monitoring or when attending for a smear test). A PPT added that HCPs could approach any woman who reports using incontinence products. A UG also advocated active questioning by population screening or after a pregnancy, stating “In first-line treatment, more attention for identification of UI is needed, for example around pregnancy and on national population screening programs”. To lower the threshold for presentation among women, a PA suggested offering an incontinence consultation with a primary care PA as a gateway to GP referral.

Questionnaire

Respondents confirmed that improvements could be made by routinely asking about UI when urinary tract infection is suspected (n = 567, 72%), after delivery (n = 582, 74%), and when a patient reports wearing disposable incontinence products (n = 629, 80%). They also found it very useful to give women a patient information leaflet when they purchase incontinence products (n = 654, 83.1%). However, respondents considered it less useful to ask about UI routinely when they attend for a cervical smear (n = 400, 50.8%), present with a cough (n = 338, 42.9%), or complain of back pain (n = 329, 41.8%) (Table 1).

3.2. Theme 2: current state of care

The joint display in Table 2 shows the integrated summary for the three topics in this theme, which we combined for this analysis. Note that “disposable incontinence products” and “secondary care treatment” were not included in the questionnaire.

Table 1
Joint display of qualitative and quantitative results related to the theme “identification of UI”.

Categories	Focus group sessions	Quantitative questionnaire (statements)
Delay in seeking healthcare	<i>“There is an atmosphere of ‘Oh well, it’s annoying, but who cares, I’ll adjust my life a bit.’” (UG)</i>	Q1: Identification of UI in general practice needs to be improved.
Updating skills for healthcare providers	<i>“Refresher training should be ‘organized for GPs.’” (GP) GPs must receive better training so that they can ask more questions and refer [patients].” (PPT)</i>	Q2: I need education about identification of UI in women.
Suggestions for improving UI identification	<i>“When repeatedly handing in urine (after about 3 times) a questionnaire is given. Possible option to add UI to that.” (GP) “Post-partum, you should be asked about urine loss. There is still a battle.” (PPT) “One could approach people who purchase incontinence materials.” (PPT) “You could invite people who buy incontinence products for a consultation.” (PPT)</i>	Q3: Opinion about usefulness of possible options for improvement of identification of UI. Ask routinely about UI: a) when a UTI is suspected b) when taking a cervical smear c) when a patient is coughing d) when a patient is having back pain e) after delivery f) when a patient is wearing disposable incontinence products g) Add an Information flyer when providing disposable incontinence products h) Information on screens in waiting room general practice i) Incontinence consulting-hours in general practice

Outcomes of survey among 741 health care professionals, linked to the sub-themes arising from the focus group session. Q = question, GP = General practitioner, UI = urinary incontinence, PPT = Pelvic physiotherapist.

3.2.1. Topic 2a: Disposable incontinence products

Focus groups

The PPT and GP sessions revealed the need for a higher threshold to contact GPs because of the free availability of incontinence products. One PA said, “Because [products are] freely available, I think you encourage patients not to go to the GP with the complaints”, and another added, “It can be difficult for patients to find out exactly what they are allowed to buy and what incontinence products are on the market”. In addition, PAs indicated that they need greater knowledge of the products on the market to estimate patient needs more effectively.

3.2.2. Topic 2b: Pelvic floor physical therapy

Focus groups

GPs stated that they often lacked awareness of the nearest registered PPT. In other sessions, PPTs added that the website of the professional physiotherapy body lacked clear information on where to find a PPT. They also mentioned the importance of visiting a registered PPT specializing in UI to avoid exercises being performed incorrectly. PPTs and GPs both emphasized the importance of maintaining the exercises. However, in secondary care, UGs commented on the difficulties they experience when referring women to a PPT after they have already tried exercises on their own, stating that this group often believe that

Table 2
Joint display of qualitative and quantitative results related to the theme “current state of care”.

Categories	Focus group sessions	Quantitative questionnaire (statements)
Pelvic physical therapy	“GPs cannot always find registered PPTs and don’t understand the difference between different physiotherapists.” (PPT)	Q4: I only refer a patient with UI to registered PPTs.
	“Reimbursement often leads to discussion, and this sometimes prevents patients from following treatment.” (PPT)	Q5: The difference between a PPT and a registered PPT is clear to me.
	“Some PPT practices have long waiting times.” (GP)	Q6: Inhibiting factors preventing referring to a registered PPT: a. Costs for a patient b. Long waiting time c. Travel distance d. I refer to a (specialized) GP assistant e. I give the instructions for the exercises myself
Secondary care	“It’s actually [case] identification and then they disappear again. Either I send them to secondary care and then something happens ..., a pessary or something that I can’t do myself, or the patient goes to the PPT if needed.” (GP) “I don’t really know where those women go after referral. You don’t hear much about it.” (GP)	Q7: I ask a patient to come back to my practice actively after the patient has been referred to a different care provider.

Survey outcomes based on sub-themes arising from the focus group session among 741 health care professionals. Abbreviations: GP, general practitioner; PPT, Pelvic physiotherapist; Q, question; UI, urinary incontinence.

exercises do not work for them. PPTs themselves stated that they need to provide evidence in support of the effectiveness and cost-effectiveness of pelvic floor physiotherapy to other professionals and insurance companies. Although a UG agreed that treatment by a PPT is relatively cheap, a PPT indicated that issues with reimbursement prevent some patients from receiving treatment, stating “Many patients do not know that they can go to a PPT without referral”.

Questionnaire

Most GPs (n = 87, 65.4%) confirmed knowing the difference between a general physiotherapist and a registered PPT. Overall, 98% (n = 182) of UGs only referred patients to registered PPTs compared with 79% (n = 105) of GPs (Table 2). Another 16% of GPs reported that they do not know whether they refer patients to a registered PPT. Finally, although GPs and UGs did not consider travel distance and waiting time

a relevant impediment to PPT referral, they reported sometimes taking these costs into account when making a referral.

3.2.3. Topic 2c: Secondary care treatment

Focus groups

GPs indicated that they have poor awareness of what happens to the women they refer. One GP summarized it as follows, “The GP identifies a complaint, refers the patient to a specialist, and then the patient disappears from sight”. Half of the GPs who completed the questionnaire did not invite patients for further consultation after their referral to secondary care (Table 2). A GP stated that a transobturator tape may be placed in secondary care and that many women ultimately find this disappointing as their complaints often recur or new complaints arise. A PPT indicated that risk factors must be investigated, and that many

patients are referred for physiotherapy after tape placement. In the UG group, one participant indicated that specialists in secondary care cause damage with any surgery, and as such, they must adopt a low-intervention strategy whenever possible. Another stated, “*If we can fix the problem in a way other than operating . . . , we should try those options first*”.

3.3. Theme 3: guiding patients through the health care system

The joint display in Table 3 shows the integrated summary for the two topics in this theme.

3.3.1. Topic 3a: Information services for women with UI

Focus groups

HCPs in all sessions agreed that women should know that they do not have to live with UI and that effective treatments are available. However, they also mentioned the need to improve information services during focus group sessions, highlighting various ways to provide women with information. PPTs indicated that reference to them could be added to incontinence products and that HCPs should actively approach women purchasing incontinence products. UGs, PPTs and PAs also indicated that printed information could be distributed in GP waiting rooms, gyms, and women’s magazines. Some sessions revealed eHealth as a potential solution to providing women with information about UI. One PPT stated that “*There is a need for standardized information services for patients; for example, about treatment options*”.

Questionnaire

HCPs noted that eHealth (not specified in the questionnaire) can play an important role not only in providing information but also for screening (Table 3). They also indicated the need to create an up-to-date online database of therapists.

3.3.2. Topic 3b: Collaboration between primary and secondary care

Focus groups

UGs stated that the current healthcare pathway for UI is insufficiently streamlined, noting “*Care is now too fragmented; there could be nationally standardized information in which the terminology is the same for different care providers*”. Consistent with this, participants noted that many women are referred to UGs for other urogynecological complaints, with UI usually found by chance, and GPs reported that they often do not know what happens to their patient after referral. Another UG commented on the need for a multidisciplinary guideline that covers the various professional groups involved in UI care. In another group, a PA commented that “*There is demand for a multidisciplinary guideline for care providers dealing with UI*”. After referral to secondary care, there was a demand for collaboration between disciplines. As an example of improved collaboration in recent years, a UG mentioned the improved availability of dedicated pelvic floor centers. UGs and PPT agreed that GPs and PPTs should know the urogynecological red flags and refer immediately when present, and a UG indicated that the GP must have already checked for red flags before referral.

Questionnaire

Most HCPs (n = 581, 75%) agreed with the statement that a multidisciplinary guideline will improve healthcare (Table 3). For the statement that patients with UI should be referred to a PPT before being referred to a specialist, 86% (n = 66) of PPTs (strongly) agreed and 21% (n = 28) of UGs (strongly) agreed to a lesser extent. Concerning the statement that primary care should offer a clinic hour devoted to UI consultations, 87% of PPTs (n = 69) agreed and 36% (n = 49) of GPs (strongly) disagreed. Similarly, while most respondents agreed that a GP should see a patient again to monitor symptoms after the initial referral, only 38% of the GPs (strongly) agreed with this statement (Table 3).

4. Discussion

This study identified bottlenecks and potential improvements regarding UI care based on the attitudes of HCPs involved in that care,

including case identification, existing care provision, and patient guidance through the care process. Many of our findings are in line with earlier research [5,6,12], suggesting that the situation in the Netherlands has not changed considerably over time, similar to other countries with a strong primary care [13,14]. It is unclear why no change over time has been encountered, despite various efforts to improve the knowledge of for example Dutch GPs through eLearnings and other CME activities.

Although age, travel distance, and coverage costs are known barriers to completing pelvic physiotherapy [15,16], these were not mentioned in our focus group sessions. Nevertheless, many other barriers to optimal UI care persist. Consistent with other research, women were reported to continue to view UI as a taboo subject in discussions with a HCP [9,17]. Both GPs and PAs also continue to want further training, an issue reported to be an important barrier to primary care treatment in two studies [12,14]. Correct referral to pelvic physiotherapy was another issue, with PPTs indicating that referral should only be to therapists who have received extra training and specialist registration. Whereas most UGs knew the difference between a general physiotherapist and a registered PPT, only two-thirds of participating GPs knew the difference. UGs also typically referred women to a registered PPT. Added to this, although most respondents agreed that a GP should see a patient after referral, only about half of the GPs supported this statement. A recent study supports this finding, indicating that GPs rarely arrange follow-up for women with UI in Dutch primary care [3], instead preferring to perform all management in a single consultation.

The survey results broadly supported the options raised in the focus groups to improve UI care. UI identification in primary care could be improved by providing patients with information when purchasing continence products. Pharmacists, supermarkets, and manufacturers could be motivated to inform patients about the URinControl-app, to see if this increases uptake of the app and raises awareness on UI. Though this may ultimately depend on their willingness to implement change. Care provision could also benefit from routinely asking women about UI when suspecting urinary tract infection, after delivery, or when noticing that a woman is wearing incontinence pads during an examination for another complaint. Notably, although the Dutch GP guideline on female incontinence advocates such routine questioning [18], it seems poorly implemented in practice. In addition to these options, respondents mentioned eHealth (particularly apps, websites, and online databases), supporting earlier research among Dutch GPs that identified a willingness to offer eHealth services in anticipation of a positive effect [19]. Finally, multidisciplinary collaboration has a positive effect on outcome measures in UI [15] and is recommended before offering invasive therapy [20]. Although participants agreed with these points, different HCPs did not agree on either the need for a dedicated incontinence consultation hour in primary care or the order of referral to PPTs and specialists. This illustrates the different interests of the involved caregivers, which need to be clarified and overcome if we are to develop a universally accepted model for multidisciplinary care.

We consider the sequential mixed-methods study design a strength of this study, integrating the qualitative and quantitative phases at both the methodological and the interpretation levels. All relevant stakeholders involved in UI healthcare in the Netherlands were also included, contrasting with earlier studies that have mainly focused on one stakeholder at a time. However, we recognize that the questionnaire participants were not selected in a consistent manner, with only three of five professional associations agreeing to send e-mails to their members. Nevertheless, sufficient numbers responded from the relevant target groups through other routes (e.g., social media). This may also have introduced selection bias due to the increased likelihood of selecting HCPs with a higher-than-average interest in the topic. A further source of confounding is that respondents may have given socially desirable answers. These issues preclude generalization to all Dutch HCPs. Finally, because we chose to keep the questionnaire short

Table 3
 Joint display of qualitative and quantitative results related to the theme “guiding of patients through the health care system”.

Categories	Focus group sessions	Quantitative questionnaire (statements)
Collaboration between primary and secondary care	<p>“There must be a multidisciplinary guideline for GPs, specialists, and pelvic floor PPT. The practice nurse will then play a key role and keep an eye on the patients. Referrals must be made directly from the GP to secondary care, whereby the GP already determines whether PPT has a realistic chance of success.” (UG)</p> <p>“The PPT can no longer be skipped.” (PPT)</p> <p>“I send patients to secondary care and then they are out of the picture again.” (GP)</p>	<p>Q8: Possible options to improve state of care in UI:</p> <p>a) A multidisciplinary guideline will improve the state of care in UI</p> <p>b) Patients with UI always need to be referred to a registered PPT before they can be referred to second-line treatment</p> <p>c) GP should see a patient again in their practice after referral to monitor the complaints</p> <p>d) There should be incontinence consulting-hours in first-line treatment</p>
Information services for women with UI	<p>“More information should be available on the internet. An app could also work fantastically there, of course.” (UG)</p>	<p>Q9: Usefulness of content of a mobile application for a patient Information about:</p> <p>a) Recognizing alarm symptoms</p> <p>b) Lifestyle factors</p> <p>c) Treatment options</p> <p>d) physiology of the bladder and pelvic floor</p> <p>e) relation of UI with other complaints like painful intercourse, constipation, and back pain.</p>
	<p>“eHealth does not replace the doctor, but is auxiliary. Patients need time and attention. An app can help us to use our time more efficiently. In addition, you get better triage, information, and prevention; patients come more prepared for the consultation; and I have better prepared my patient record. This gives me more time for the patient.” (UG)</p>	<p>Q10: Opinion about usefulness of possible role of eHealth in current state of care:</p> <p>a) An actual online database with registered PPTs</p> <p>b) A screening program (online/application) in which women can get information and advice based on self-reported complaints</p>

Outcomes of survey among 741 health care professionals, linked to the sub-themes arising from the focus group session. Q = question, GP = General practitioner, UI = urinary incontinence, PPT = Pelvic physiotherapist.

to improve participant engagement and focus, some topics emerging from the focus groups deserve more attention in future research.

Although technological and practice developments have led to improved UI care over recent decades, much still needs to change. Case

identification requires improvement, especially in general practice. There also remains a global need to improve awareness among women that UI is a treatable condition that can be discussed with their HCP. Adding a proven, cost-effective, easy-to-use eHealth solution that offers

thorough patient information and guided self-management could also lower the threshold for GPs and patients discussing UI proactively. However, the patient's journey through the health care system remains patchy at best, further supporting the need for multidisciplinary guidelines to ensure a consistent approach among professional groups. To ensure successful collaboration between different stakeholders involved in UI care, we must reach agreement that respects the diverse interests of all involved.

CRedit authorship contribution statement

Jorke van Boxtel: Data analysis (qualitative and quantitative), Manuscript writing. **Nienke J. Wessels:** Protocol development, Data collection, Data analysis, Manuscript editing. **Eline J. Ruiter:** Data collection, Data analysis (quantitative part), Manuscript editing. **Anne M.M. Loohuis:** Additional grant proposal (Professor Huygen Award 2016), Protocol development, Interpretation of outcomes, Manuscript editing. **Esther I. Metting:** Protocol development, Data collection (conducting focus group meetings), Interpretation of outcomes, Manuscript editing. **Henk van der Worp:** Protocol development, Supervision of project, Interpretation of outcomes, Manuscript editing. **Marco H. Blanker:** Grant proposal (ZonMw, PW Boer Foundation), Project development, Data collection (conducting of one focus group meetings), Supervision of data analyses (qualitative and quantitative part), Interpretation of outcomes, Manuscript writing and editing.

Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Marco H. Blanker owns the intellectual property for the UrinControl application used to treat female urinary incontinence, which has been made available free of cost to the user.

Acknowledgments

We would like to thank Lisette van Gemert-van Pijnen and Lisa Hulshof for their contributions to the study design and data collection, and Dr Robert Sykes (www.doctored.org.uk) for providing technical editing services in the final drafts of this manuscript.

Funding

This work was supported by grants from ZonMw, the Dutch Organisation for Health Research and Development, The Netherlands (project number: 837001508) and the PW Boer Foundation, The Netherlands. The study won the Professor Huygen Award 2016 for best study proposal in general practice, which resulted in additional funding. The funders had no role in the data collection, analysis, decision to publish, or preparation of the manuscript.

References

- [1] V.A. Minassian, X. Yan, M.J. Lichtenfeld, H. Sun, W.F. Stewart, The iceberg of health care utilization in women with urinary incontinence, *Int. Urogynecol. J.* 23 (8) (2012) 1087–1093, <http://dx.doi.org/10.1007/s00192-012-1743-x>.

- [2] P. Albers-Heitner, B. Berghmans, F. Nieman, T. Lagro-Janssen, R. Winkens, Adherence to professional guidelines for patients with urinary incontinence by general practitioners: a cross-sectional study, *J. Eval. Clin. Pract.* 14 (5) (2008) 807–811, <http://dx.doi.org/10.1111/j.1365-2753.2007.00925.x>.
- [3] M.C. Schreuder, N.A.M. van Merode, A.P. Oldenhof, F. Groenhof, M.F. Kortekaas, H. Maagdenberg, et al., Primary care diagnostic and treatment pathways in Dutch women with urinary incontinence, *Scand. J. Prim. Health Care* 18 (2022) 1–8, <http://dx.doi.org/10.1080/02813432.2022.2036497>.
- [4] D. Teunissen, C. van Weel, T. Lagro-Janssen, Urinary incontinence in older people living in the community: examining help-seeking behaviour, *Br. J. Gen. Pract.* 55 (519) (2005) 776–782.
- [5] F.J. Penning-van Beest, M.C. Sturkenboom, B.L. Bemelmans, R.M. Herings, Undertreatment of urinary incontinence in general practice, *Ann. Pharmacother.* 39 (1) (2005) 17–21, <http://dx.doi.org/10.1345/aph.1D491>.
- [6] M.A. van Gerwen, F.G. Schellevis, A.L. Lagro-Janssen, Management of urinary incontinence in general practice: data from the second Dutch national survey, *J. Eval. Clin. Pract.* 15 (2) (2009) 341–345, <http://dx.doi.org/10.1111/j.1365-2753.2008.01012.x>.
- [7] S. Reeves, F. Pelone, R. Harrison, J. Goldman, M. Zwarenstein, Interprofessional collaboration to improve professional practice and healthcare outcomes, *Cochrane Database Syst. Rev.* 6 (6) (2017) CD000072, <http://dx.doi.org/10.1002/1465185.CD000072.pub3>.
- [8] J.C. Greene, V.J. Caracelli, W.F. Graham, Toward a conceptual framework for mixed-method evaluation designs, *Educ. Eval. Policy Anal.* 11 (3) (1989) 255–274, <http://dx.doi.org/10.3102/01623737011003255>.
- [9] N.J. Wessels, L. Hulshof, A.M.M. Loohuis, L. van Gemert-Pijnen, P. Jellema, H. van der Worp, et al., User experiences and preferences regarding an app for the treatment of urinary incontinence in adult women: Qualitative study, *JMIR Mhealth Uhealth* 8 (6) (2020) e17114, <http://dx.doi.org/10.2196/17114>.
- [10] N.J. Wessels, E.J. Ruiter, L. Hulshof, A.M.M. Loohuis, J.E.W.C. Van Gemert-Pijnen, E.I. Metting, et al., Care provider views on app-based treatment for female urinary incontinence: a mixed-methods study, *Continence* 6 (2023) 100584, <http://dx.doi.org/10.1016/j.cont.2023.100584>.
- [11] M.D. Fetters, L.A. Curry, J.W. Creswell, Achieving integration in mixed methods designs-principles and practices, *Health Serv. Res.* 48 (6 Pt 2) (2013) 2134–2156, <http://dx.doi.org/10.1111/1475-6773.12117>.
- [12] D. Teunissen, W. van den Bosch, C. van Weel, T. Lagro-Janssen, Urinary incontinence in the elderly: attitudes and experiences of general practitioners. A focus group study, *Scand. J. Prim. Health Care* 24 (1) (2006) 56–61, <http://dx.doi.org/10.1080/02813430500417920>.
- [13] K. Nguyen, K.F. Hunter, A. Wagg, Knowledge and understanding of urinary incontinence: survey of family practitioners in northern Alberta, *Can. Fam. Physician* 59 (7) (2013) e330–e337.
- [14] C. Shaw, C. Atwell, F. Wood, K. Brittain, K. Williams, A qualitative study of the assessment and treatment of incontinence in primary care, *Fam. Pract.* 24 (5) (2007) 461–467, <http://dx.doi.org/10.1093/fampra/cmm041>.
- [15] H.W. Brown, H.C. Barnes, A. Lim, D.L. Giles, S.E. McAhran, Better together: multidisciplinary approach improves adherence to pelvic floor physical therapy, *Int. Urogynecol. J.* 31 (5) (2020) 887–893, <http://dx.doi.org/10.1007/s00192-019-04090-w>.
- [16] S. Tibaek, G. Gard, C. Dehlendorff, H.K. Iversen, J. Erdal, F. Biering-Sorensen, et al., The effect of pelvic floor muscle training on sexual function in men with lower urinary tract symptoms after stroke, *Top. Stroke Rehabil.* 22 (3) (2015) 185–193, <http://dx.doi.org/10.1179/1074935714Z.00000000019>.
- [17] E. Visser, G.H. de Bock, B.J. Kollen, M. Meijerink, M.Y. Berger, J.H. Dekker, Systematic screening for urinary incontinence in older women: who could benefit from it? *Scand. J. Prim. Health Care* 30 (1) (2012) 21–28, <http://dx.doi.org/10.3109/02813432.2011.628244>.
- [18] Z. Damen-van Beek, D. Teunissen, J.H. Dekker, A.L. Lagro-Janssen, L.C. Berghmans, J.H. Uijen, et al., Practice guideline 'urinary incontinence in women' from the Dutch college of general practitioners, *Ned. Tijdschr. Geneesk.* 160 (2016) D674.
- [19] J.M. Peeters, J.W. Krijgsman, A.E. Brabers, J.D. Jong, R.D. Friele, Use and uptake of ehealth in general practice: A cross-sectional survey and focus group study among health care users and general practitioners, *JMIR Med. Inform.* 4 (2) (2016) e11, <http://dx.doi.org/10.2196/medinform.4515>.
- [20] A. Balachandran, J. Duckett, What is the role of the multidisciplinary team in the management of urinary incontinence? *Int. Urogynecol. J.* 26 (6) (2015) 791–793, <http://dx.doi.org/10.1007/s00192-014-2579-3>.