

Title

Pregnant women's awareness, knowledge and beliefs about pelvic floor muscles: A cross sectional survey

Authors

Anne-Marie Hill,¹ Steven M McPhail,^{2,3} Judith M. Wilson,⁴ Richard G. Berlach⁵

1 School of Physiotherapy and Exercise Science, Curtin University, Perth, Western Australia, Australia

2 Centre for Functioning and Health Research, Metro South Health, Brisbane, Queensland, Australia

3 Institute of Health and Biomedical Innovation and School of Public Health & Social Work, Queensland University of Technology, Brisbane, Queensland, Australia

4 School of Physiotherapy, The University of Notre Dame Australia, Fremantle, Western Australia, Australia

5 School of Education, The University of Notre Dame Australia, Fremantle, Western Australia, Australia

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None

Authors' contributions

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SMM Data management and analyses, Manuscript drafting and editing

JW Project development, Data collection, management and analyses, Manuscript writing

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Abstract

Aim

Pregnant women benefit from completing pelvic floor muscle exercises (PFME). The aims of the study were to evaluate pregnant women's levels of awareness, knowledge and beliefs about the pelvic floor muscles (PFM) and PFME.

Methods

A cross sectional survey was conducted. Respondents were pregnant women over the age of 18 years who attended antenatal clinics in Western Australia (WA). Questionnaire items measured awareness and knowledge about PFM, confidence and beliefs about engaging in PFME, and attendance at antenatal education (ANE) classes. Chi square tests examined potential associations between questionnaire items and respondent characteristics.

Results

Respondents' (n=633/850; 74% response rate) mean gestation was 28.7 (+7.8) weeks and 50% were giving birth for the first time. While 76% of respondents knew that PFM can prevent urinary incontinence, only 27% knew they prevented faecal incontinence and 41% thought it was normal to leak urine when pregnant. Only n=72 (11%) were practicing PFME. Respondents who had attended ANE (28%) were significantly more knowledgeable about pelvic floor function ($p<.001$) and significantly less likely to believe that leaking urine during pregnancy was normal ($p=0.02$), compared to those who had not attended ANE. Respondents who did not speak English at home (18%) were significantly less knowledgeable about PFM and PFME, and significantly less likely to have attended, or plan to attend ANE classes.

Conclusion

Pregnant women require more health education regarding PFM. Education should be provided using diverse modes, especially for women from migrant backgrounds and women who do not plan to attend formal ANE classes.

Keywords

Pregnancy; Pelvic floor; Pelvic floor exercises; Behaviour change theory; Survey

Brief summary

Pregnant women surveyed had low levels of knowledge about the function and anatomy of pelvic floor muscles. Only 11% of respondents were performing pelvic floor muscle exercises.

Introduction

Urinary incontinence (UI) is one of the most common and embarrassing problems encountered during pregnancy [1-3] and is known to have a serious negative impact on quality of life, with adverse social, physical and psychological consequences [4]. Pregnancy is an important period to identify and treat this problem, as pregnancy and birth are major risk factors for developing UI [4,5]. There is strong evidence that providing education and training for PFME during the antenatal period is a means of reducing and preventing UI in the postnatal period, in either women who are dry or those who already have UI [6,7].

However health behaviour change theory demonstrates that individuals need to be capable, (both aware of the potential health problem and knowledgeable about how to engage in the desired health behaviour of PFME), and motivated to engage in preventive health behaviours such as PFME [8,9]. They also require the social (both physical and psychological) opportunity to engage in PFME and any barriers or enablers to the desired behaviours should be addressed [8,10]. There have been limited studies in antenatal populations which have assessed knowledge and awareness about the structure and function of the PFM, particularly its role in preventing UI and levels of motivation to engage in PFME [1,11-13]. A recent survey of 212 nulliparous women which assessed levels of knowledge about the structure and function of the pelvic floor found that 81% of respondents had never received information about the pelvic floor and only 3% had completed any training in PFME [12]. Another study which surveyed women about their knowledge of pelvic floor problems found an average knowledge score of 44/100, and even lower knowledge scores about faecal incontinence and prolapse [11]. However these studies comprised in total only 682 pregnant women surveyed, only one study surveyed both primiparous and multiparous women [1], only one study asked

women about the structure of the pelvic floor [12] and none of the studies were conducted in Australia.

Pregnant women may gain knowledge about PFM through health professionals providing ANE [1,2]. However not all women might seek or receive such education [1,12]. Therefore there may be differences in knowledge according to if women attend ANE and women who do not attend may also lack motivation or social opportunity to engage in PFME [8-10]. If women do not gain this awareness and knowledge about PFM and PFME through ANE or other information sources, they might not be capable or motivated to engage in PFME either in the ante or postpartum period, or be aware that they should seek help for any onset of UI or other pelvic floor problems.

The aims of the study were to evaluate Australian pregnant women's levels of awareness, knowledge and beliefs about PFM and PFME. Women were also surveyed about their self-reported engagement in PFME and their planned attendance at ANE classes.

Methods

Design

A cross sectional survey of pregnant women was undertaken.

Ethical considerations

The study was approved by The University of Notre Dame Australia human research ethics committee and the Department of Health WA (DoHWA), north and south metropolitan, and

country health service ethics committees. All respondents provided written, informed consent prior to completing the survey.

Participants and setting

The survey was conducted in WA, where DoHWA reports data regarding births in WA [14]. DoHWA at the time of the survey was divided into a single rural, and two (north and south) metropolitan health regions. Recruitment was undertaken in a face-to-face setting at DoHWA maternal health clinics and postal surveys were sent through a number of other clinics with the aim of broadening the sample.

Participants were eligible for inclusion in the study if they were pregnant, aged over 18 years, able to speak and read English, able to provide written informed consent and had not previously completed the survey. Exclusion criteria were a diagnosis of any neurological condition, including multiple sclerosis or stroke.

Data collection instrument

Data were collected using a custom designed questionnaire, which used a mix of categorical and Likert type scales. Questionnaire items measured awareness of PFM and knowledge of PFM and PFME. Items also measured beliefs about UI as a key function of PFM is to prevent UI, beliefs about PFME role in preventing UI, and whether respondents believed that they could engage in PFME. Self-reported engagement in PFME was also measured. Other items measured age, level of education, country of birth and language spoken at home [English or language other than English (LOTE)], parity, gestation, body mass index (BMI), self-reported frequency of UI and attendance at ANE classes held in WA. Socio-economic status was measured using the Socio-Economic Indexes for Areas (SEIFA), developed by the

Australian Bureau of Statistics [15]. The SEIFA provides a composite measure to rank areas in Australia according to relative socio-economic advantage and disadvantage. The measures are based on information from the five-yearly Australian census.

The questionnaire items were designed by a women's health physiotherapist (JW) and were based on seeking to understand pregnant women's knowledge about the structure and function of PFM and PFME. The initial questionnaire was sent to three physiotherapists who specialised in women's health, who were asked to answer and appraise the questions [16,17]. The questionnaire was also assessed for content validity by a group of pregnant women attending an ANE class. The questionnaires were then modified and piloted [16] on 10 pregnant women to ensure any ambiguities and sensitivities had been excluded, and to identify how long the questionnaire took to answer. Feedback from these sources was analysed by the researchers and wording in some items were altered to allow for a clearer understanding of the item. The revised questionnaire was then re-piloted with another group of 10 pregnant women attending an ANE class [17].

Procedure

All pregnant women attending the clinics were approached in consecutive order by the researcher, advised of the purpose of the research and women over 18 years of age were invited to participate and provide written informed consent. Women who were unable to complete the survey at the time, but who consented to provide their email address and telephone number were subsequently contacted and invited to complete the questionnaire, using an internet-based survey platform [18]. Copies of the survey were posted to clinics who indicated willingness to distribute the surveys.

Statistical analysis.

Data were summarised using descriptive statistics [frequency and means (SD) or medians (IQR)]. The representativeness of the sample was inspected by comparing demographic data from the sample with the DoHWA data [14], using Chi square tests. Analyses were undertaken to examine differences in knowledge, awareness about PFM and PFME between the demographic groups of respondents based upon those characteristics which were thought to be likely to affect knowledge, awareness and beliefs about PFM and PFME. Therefore differences were compared between those who spoke LOTE and English speakers, primiparous and multiparous women, and those who had attended or not attended ANE, using the Cross-tabulations of Chi-Square or, where required, Fisher's Exact Tests. All data were analysed using Stata 14 (StataCorp, 2015. Stata Statistical Software: Release 14. College Station, TX: StataCorp LP).

Sample size

A minimum required sample size was estimated using previously reported DoHWA data, which indicated that there were 31,734 babies delivered in WA in 2011 [14]. It was estimated that a minimum sample of 380 was required [19], to determine using a 95% confidence interval the proportion of pregnant women (within a 5% margin of error) with a positive response to a question (e.g., the proportion of pregnant women aware that PFME can prevent UI).

Results

Survey response

There were 850 questionnaires circulated of which 633 (74.5%) were completed and returned (see Figure 1). Some respondents did not answer all questions meaning that there were missing data for some items (see Tables 1 to 4). Women from the north region were proportionally more represented in the sample compared with the DoHWA data and significantly more respondents were from higher socio economic backgrounds. More than 95% of respondents were planning to give birth in a DoHWA (public) hospital whereas DoHWA data indicated that 40% of women in WA gave birth in private hospitals in 2011 [14].

Demographic and clinical characteristics of respondents

Demographic and clinical characteristics of respondents are presented in Table 1.

Respondents mean age was 29.2 years and the mean gestation period of the cohort was 28.7 weeks. Of note, there were 310 (49.0%) respondents who reported that they experienced UI. Respondents who were multiparous were significantly more likely to report UI (62.6%) than those who were primiparous (44.2%) ($p < .001$). Respondents without asthma (or other condition causing chronic cough) ($n=571$) were significantly more likely to be continent [$n=274$ (48.0%)] compared with those respondents with asthma [$(n=62)$, continent $n=19$ (30.6%)] ($p=0.008$). Respondents with an increased BMI ($n=200$) had an increased frequency of self-reported UI (55%) compared to those who were of normal weight who reported UI (50%), although these differences were not significant ($p=0.246$).

Awareness of PFM and engagement in PFME

Questionnaire responses that measured respondents' awareness of PFM and PFME and how respondents obtained information about PFM are presented in Table 2. There were 108 (17.4%) of respondents who had not heard of, or were unsure if they had ever heard of PFM.

Respondents who spoke LOTE, whether primiparous or multiparous, were significantly more likely to report that they had not heard about PFM. There were 306 (49.4%) respondents who reported they heard about PFM from a midwife. Seventy respondents (11.0%) reported that they were currently practicing PFME. Respondents who reported UI were not significantly more likely to be practicing PFME compared to those who did not report UI. ($p=.316$).

There was no significant difference in engagement in PFME between respondents who were planning to attend ANE [practicing PFME $n=29$ (40.3%), not practicing PFME $n=199$ (35.5%), $p=0.44$]. However respondents who were not planning to attend ANE were less likely to be practicing PFME [practicing PFME $n=9$ (12.5%), not practicing PFME $n=179$ (32.0%), $p<.001$]. Respondents who had attended ANE during their present or previous pregnancy were significantly more likely to be practicing PFME [practicing PFME $n=32$ (44.5%), not practicing PFME $n=146$ (26.0%), $p=0.02$].

Levels of knowledge about PFM and PFME

Respondents' levels of knowledge about the anatomy and function of PFM and PFME are presented in Table 3. There were 481 (76%) respondents who correctly identified that PFM function to prevent UI, but only (27.3%) knew that the PFM function to prevent faecal incontinence and 131 (20.7%) respondents could not identify any PFM function. Only 34 (5.4%) respondents correctly answered the question "what do your PFM go around?"

Beliefs about PFM function, UI and PFME

Respondents' confidence in and beliefs about PFM in pregnancy, in particular UI and engaging in PFME, are presented in Figure 2. There were 262 (41.4%) respondents who strongly agreed or agreed that it was normal to leak urine when pregnant. There were 180

(28.2%) respondents who were undecided as to whether there was treatment for UI during pregnancy. Respondents who had not attended ANE in the present or previous pregnancy were significantly more likely to strongly agree or agree that it was normal to leak urine than those women who had already attended ANE [not attended n=196, attended ANE n=66 (p=0.02)].

Attendance at ANE

There were 36.2% of respondents who reported they planned to attend ANE, while 29.7% did not plan to attend ANE (see Table 1). Table 4 shows parity, language spoken at home and attendance at ANE. Of the 178 respondents who had attended ANE either during their present or previous pregnancy, respondents who spoke LOTE were significantly less likely to have attended compared to those who spoke English (p=<.001). Of the 188 participants who were not planning to attend ANE those who spoke LOTE were significantly less likely to be planning to attend ANE compared to those participants who spoke English (p=.008).

Respondents from the most disadvantaged socio economic areas were significantly more likely not to be planning to attend ANE [n=30 (44.8%)] than those from more advantaged [n=87 (32.4%)] or the most advantaged areas [n=55 (23.9%)] (p=0.002). Regarding education, respondents with education beyond school (college or university education) were significantly more likely be planning to attend ANE [n=138 (60.3%)] compared with respondents who had school education only [n=91 (39.7%)] (p<.001).

Discussion

This Australian survey provided new findings regarding pregnant women's levels of knowledge of PFM and PFME. While 76% of respondents knew that PFM play a role in preventing UI, only 27% of respondents knew that PFM prevent or reduce faecal incontinence. Respondents also had very limited knowledge about the anatomy of the PFM: for example only 54% knew that PFM went round the bladder opening and approximately 20% of women responded that they did not know what the PFM did. This concurred with a previous study of primiparous women, which found that only 43% of women could name more than one function of the pelvic floor [12].

In this survey almost 50% of respondents reported they experienced UI, similar to findings of other large studies in this population [1,20]. This frequency could reflect that the mean gestation period of the respondents was just over the end of the second trimester. It was thus of concern that over 40% of respondents believed it was normal to leak urine during pregnancy and over 32% of respondents were undecided or disagreed that treatment for UI is available during pregnancy. Approximately one third of women previously surveyed in Belgium also thought it was normal to leak urine or need to use a pad for incontinence [12]. Low levels of awareness and erroneous beliefs about PFM and PFME i.e. how they function to prevent UI, when viewed within the concepts of health behaviour change, suggest that pregnant women may not be capable or motivated to seek help for UI during the antenatal period, or to initiate or consistently engage in PFME [8,10].

Only 11% of respondents were practicing PFME and a further 30% had never or were unsure about whether they had ever exercised their PFM, which concurs with findings from another survey reporting that only 3% pregnant women were practicing PFME [12]. This differs from a survey in Scotland which found that approximately 54% of women were practicing

PFME [1]. However, this sample had a longer mean gestation period compared to ours of 28 weeks, and almost 40% had received the information in a parent education class, whereas in our study only 28% of women had attended ANE classes. Concepts of health behaviour change applied would suggest that having awareness about PFM alone does not mean that women have the capability (including skills) to engage in PMFE [8]. Additionally, motivation and social opportunity (such as attending ANE) are also key factors in stimulating health behaviour change [8]. However, over 80% of respondents believed that they would do PFME if advised, suggesting good levels of motivation. Therefore health professionals should ensure that all pregnant women receive training and ongoing monitoring about how to undertake PFME, a recommendation supported by other studies [1,12]. In our study only 50% of women had received information about PFM from the midwife even though 50% already reported some UI.

Like the study conducted in Scotland [1], there was a significant increase in likelihood of respondents who practiced PFME having attended ANE compared to respondents who were not practicing PFME, suggesting that social opportunity and the knowledge and motivation gained from attending ANE is valuable. However, while respondents in this study who had attended ANE had the highest knowledge in correctly responding that PFME should be practiced daily, there were still low levels of engagement in PFME among this group. A previous study conducted in WA found that while all physiotherapists delivered education about engaging in PFME at ANE classes, their class contact time was very limited, with less than half of women who attended a publicly held ANE class in WA likely to have physiotherapist input [21]. Other studies suggest that effective instruction and training from a health professional is an important means of building the skills and confidence to practice PFME [22,23].

Women from higher socio-economic groups were over-represented in our sample compared to the WA population, and these women were significantly more likely to be planning to attend ANE, meaning that in broad antenatal populations drawn from all socioeconomic groups, even less pregnant women may plan to attend ANE. Importantly, those respondents who spoke LOTE were significantly less likely to be aware of PFM and also significantly less likely to be planning to attend, or have already attended ANE. Therefore pregnant women from migrant backgrounds who are not planning to attend ANE may be more at risk of developing PFM dysfunction, including resulting UI. Women who are migrants to Australia, particularly those who are primiparous, may need more tailored and culturally appropriate services in the antenatal period, to aim to avoid postnatal pelvic floor problems.

Limitations

It was not practical to obtain a list of all pregnant women in WA and generate a completely representative sample, however seven DoHWA sites were approached using face-to-face surveys. Mail outs were delivered to six sites and data were collected from 25 sites. The sample characteristics differed in some respects, such as socioeconomic status, from the DoHWA, but the sample was still largely representative of pregnant women in WA, being similar in proportions for characteristics such as parity and medical conditions. There were 18% of respondents who spoke LOTE at home, which accords with the 2011 Australian census [24]. These data, while specific to WA, may be useful to inform services for pregnant women in other similar health systems. There were some missing data for nearly all questionnaire items and those women who spoke LOTE were more likely to leave items unanswered, possibly due to language difficulty. Future questionnaires should be administered in other languages to gain information about these women's knowledge of PFM

and PFME, and additionally to seek their feedback about how they would like ANE to be provided.

Conclusion

Pregnant women surveyed in Australia had limited knowledge and awareness about PFM, in particular if they were primiparous or came from a culturally diverse background. Not all women planned to attend ANE and those who did not speak English as a first language were significantly less likely to attend ANE. Therefore more research is needed to establish broad methods of providing ANE for pregnant women that effectively increase their knowledge and awareness about PFM, and assist them to develop capability, motivation and social opportunity to engage in PFME.

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Conflict of Interest

The authors declare they have no conflict of interest.

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Figure Legends

Figure 1. Survey distribution and response rate

Figure 2. Respondents' beliefs regarding urine leakage and pelvic floor muscle exercises

Fig. 1

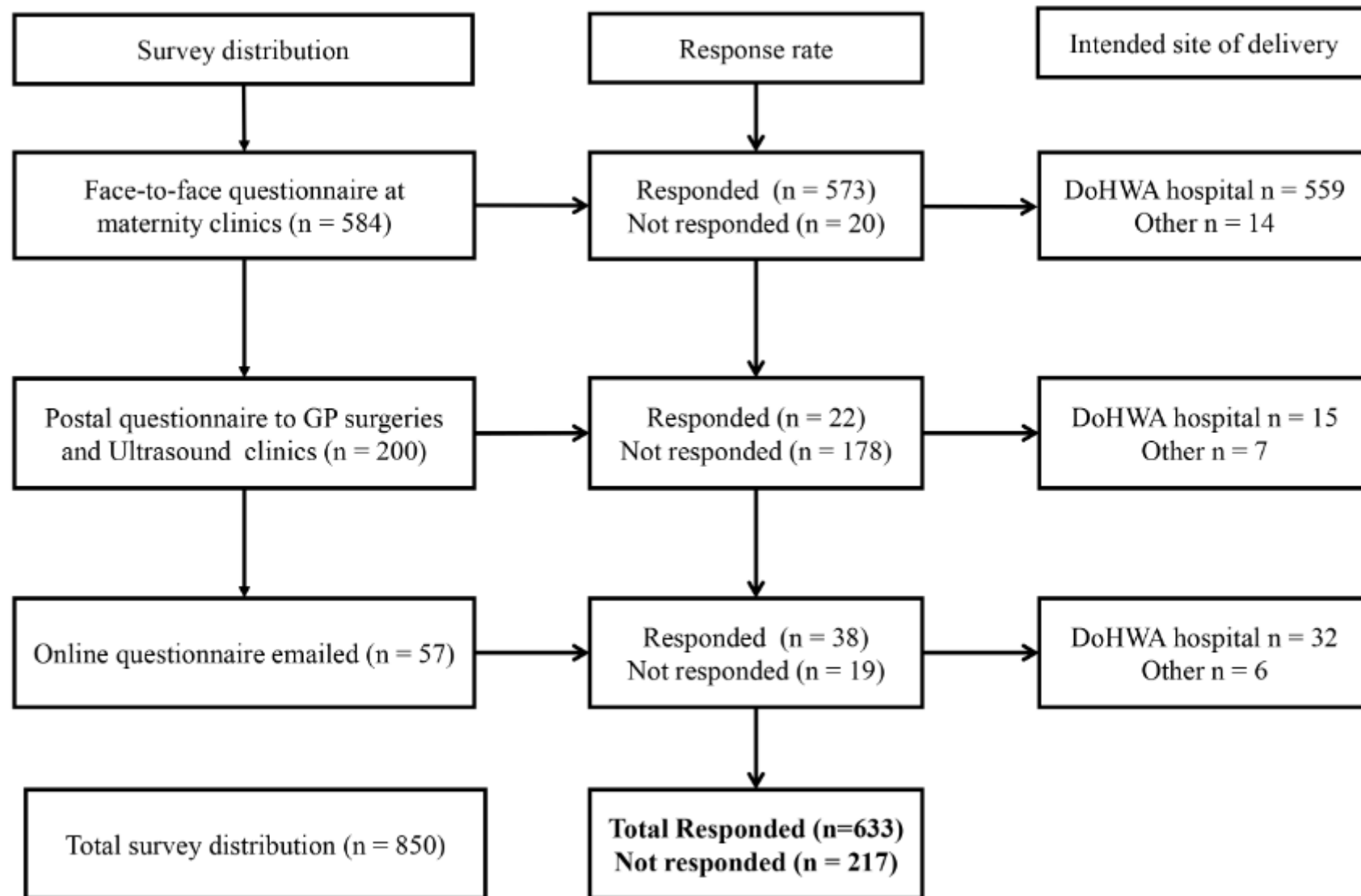


Fig. 2

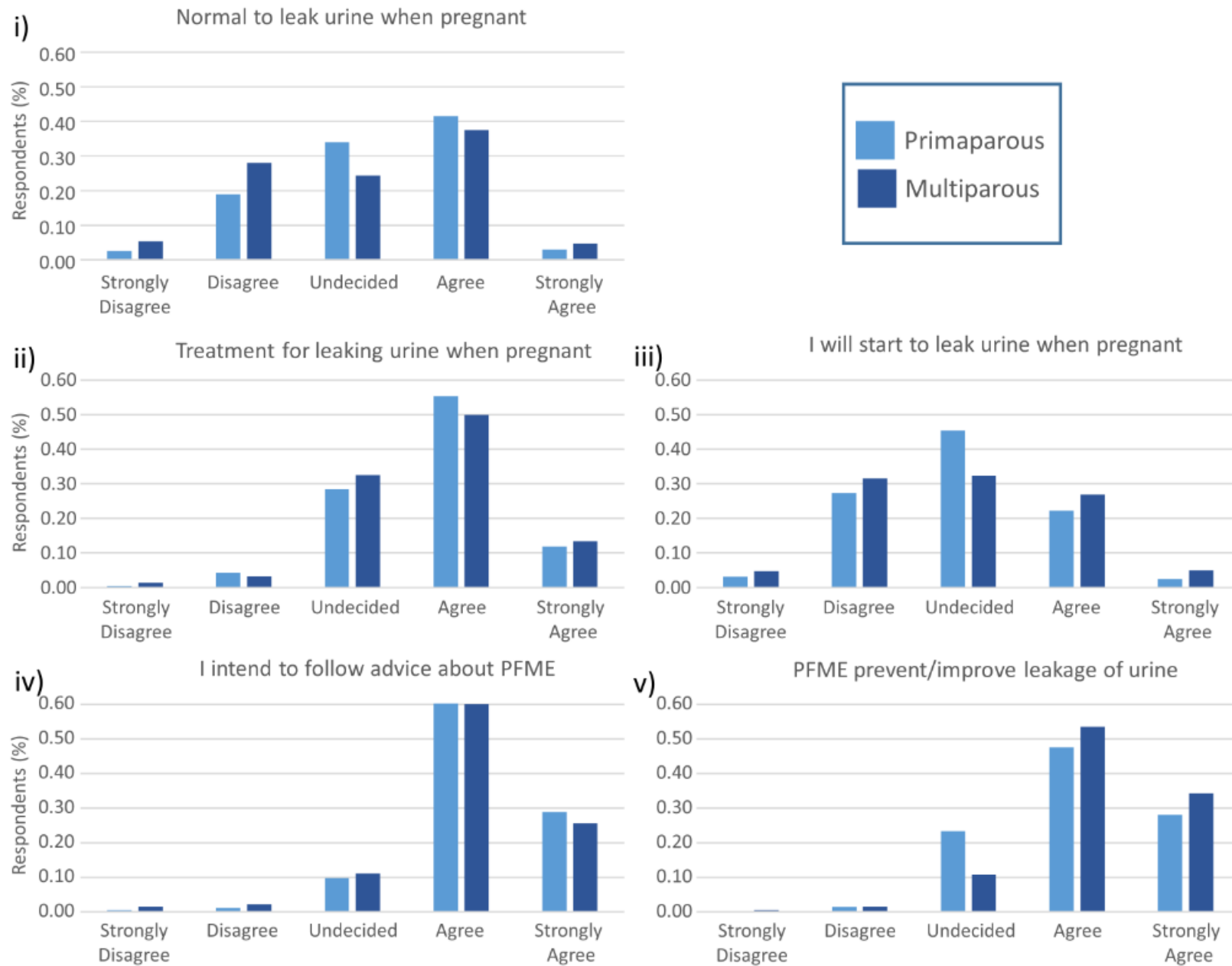


Table 1. Clinical and demographic characteristics of respondents (n=633) and population data (n=31,734) from Department of Health Western Australia (DoHWA)

Characteristic	Respondents	DoHWA	p-value
Region			
North metropolitan	439 (69.4)	12562 (39.6)	<0.001
South metropolitan	108 (17.1)	12070 (38.0)	<0.001
Rural	67 (10.6)	5454 (17.2)	<0.001
Age (years), mean \pm SD	29.2 \pm 5.3	29.7 ^a	
Gestation (weeks), mean \pm SD	28.7 \pm 7.8	NR ^b	
Parity n, (%)			
0	317 (50.1)	13,487 (42.5)	<0.001
1 or more	305 (48.2)	18,247 (57.5)	<0.001
Medical conditions n (%)			
No medical condition	390 (61.6)	20220 (63.7)	0.47
Asthma/ other condition with cough	62 (9.8)	3283 (10.4)	0.13
Other	77 (12.2)	8231 (25.9)	<0.001
Marital status, n (%)			
Married / partner	581 (91.8)	26,972 (85.0)	<0.001
Single	36 (5.7)	4052 (12.8)	<0.001
Other	3 (0.5)	710 (2.2)	
Socioeconomic status, SEIFA,^c n (%)			
1	19 (3.0)	5900 (18.5)	<0.001
11	48 (7.6)	5332 (16.8)	<0.001
111	218 (34.4)	6852 (21.6)	<0.001

1V	125 (19.7)	7475 (23.5)	0.05
V	156 (24.7)	5316 (16.8)	<0.001
Country of birth, n (%)			<0.001
Australia, New Zealand	388 (61.3)	21,772 (70.0)	
UK, US, other English speaking	72 (11.4)	3184 (10.2)	
Asia	124 (19.6)	3,837 (12.3)	
Other countries (LOTE)	41 (6.5)	2,330 (7.1)	
Speaks LOTE, n (%)	114 (18.0)	NR	
Identifies as ATSI, n (%)	25 (3.9)	1,723 (5.4)	
Self-reported UI, n (%)		NR	
Never	293 (46.2)		
<1/week	175 (27.6)		
>1/week	82 (13.0)		
Daily	53 (8.4)		
Don't know	13 (2.1)		
BMI, n (%)		NR	
Normal (< 25.0)	330 (52.1)		
Overweight (25.0 to 29.9)	107 (16.9)		
Obese (> 29.9)	93 (14.7)		
Frequency of self-reported general exercise per week, n (%)		NR	
30 minutes or more 5 or more times	126 (19.9)		
30 minutes or more 1 – 4 times	179 (28.3)		
10 – 20 minutes 5 or more times	98 (15.5)		
10 minutes 1- 4 times	106 (16.7)		

Never	79 (12.5)	
Education level completed, n (%)		NR
University	186 (29.3)	
Technical or further education	123 (19.4)	
Finished secondary school	155 (24.5)	
Finished Year 10 / other	140 (22.2)	
Attendance at ANE classes n (%)		NR
Planning to attend (has not already attended in past)	229 (36.2)	
Not planning to attend	188 (29.7)	
Attended this pregnancy	51 (8.1)	
Attended previous pregnancy	127 (20.1)	
Don't know / unavailable	38 (5.9)	

^a SD not provided by DoHWA report

^b Not provided by DoHWA report

^c SIEFA = Socio-Economic Indexes for Areas of Australia, where I = most disadvantaged socioeconomic area and V = most advantaged socio-economic area

Abbreviations: ANE= antenatal education; ATSI = Aboriginal or Torres Strait Islander;

BMI = body mass index; DoHWA = Department of Health Western Australia; LOTE =

language other than English spoken at home; UI= urinary incontinence

Table 2. Respondents' levels of awareness about PFM and PFME and self-reported engagement in PFME

	Primiparous			Multiparous		
	LOTE (n =60)	English (n =256)	p-value	LOTE (n=53)	English (n =251)	p-value
Heard of PFM? n (%)			< .001 ^b			< .001 ^b
Yes	26 (43.3)	220 (86.0)		25 (47.1)	241 (96.0)	
No	30 (50.0)	27 (10.5)		26 (49.1)	7 (2.8)	
Don't know	4 (6.7)	9 (3.5)		2 (3.8)	3 (1.2)	
Ever exercised PFM? n (%)			< .001			< .001
Yes	12 (20.0)	135 (52.7)		14 (26.4)	192 (76.5)	
No	24 (40.0)	45 (17.6)		18 (34.0)	20 (8.0)	
Doing PFME	6 (10.0)	36 (14.1)		1 (1.9)	27 (10.8)	
Don't know	18 (30.0)	39 (15.2)		20 (37.7)	12 (4.7)	
Where heard of PFM? ^a n (%)						
Midwife	11 (42.3)	93 (42.3)		14 (56.0)	188 (78.0)	
Book	8 (30.8)	65 (29.5)		5 (20.0)	61 (25.3)	

Internet	15 (57.7)	63 (28.6)	6 (24.0)	37 (15.3)
Physiotherapist	4 (15.4)	32 (14.5)	3 (12.0)	55 (22.8)
Other sources	5 (19.2)	100 (45.4)	5 (20.0)	65 (27.0)

^a Able to select more than one answer, ^bFisher's exact test

Abbreviations: PMF = pelvic floor muscles; PFME = pelvic floor muscle exercises; UI= urinary incontinence

Table 3. Respondents’ knowledge about anatomy and function of pelvic floor muscles, including knowledge about UI

	Total responses n = 633 (100%)	Attended ANE n = 178 (100%)	Not attended ANE n = 454 (100%)	p-value
What do your PFM do? ^a n (%)				< .001
Prevent UI	481 (76.0)	163 (91.5)	318 (69.9)	
Prevent faecal incontinence	173 (27.3)	63 (35.4)	110 (24.2)	
Support your back	72 (11.4)	26 (14.6)	46 (10.1)	
All of above	17 (2.7)	7 (3.9)	10 (2.2)	
Don’t know	131 (20.7)	12 (6.7)	119 (26.2)	
What do your PFM go around? ^a n (%)				< .001
Bladder exit	345 (54.5)	125 (70.2)	220 (48.3)	
Vagina	315 (49.7)	105 (59.0)	210 (46.1)	
Bowel exit	45 (7.1)	18(10.1)	27 (5.9)	
All of above	34 (5.4)	14 (7.9)	20 (4.4)	
Don’t know	239 (37.8)	40 (22.5)	199 (43.7)	
Your PFM and lower tummy muscle should work together? n (%)				0.20
True	256 (40.6)	164 (39.5)	79 (44.4)	
False	41 (6.5)	28 (6.7)	11 (6.2)	

Sometimes	45 (7.1)	25 (6.0)	17 (9.5)	
Don't know	289 (45.8)	198 (44.7)	71 (39.9)	
Why might women leak urine when they are pregnant? ^a n(%)				< .001
They are pregnant	238 (37.6)	69 (38.8)	169 (37.2)	
Their bladder is too small	149 (23.6)	39 (21.9)	110 (24.2)	
Their PFM do not work properly ^b	384 (60.7)	137 (77.0)	247 (54.3)	
Only the last answer above is correct ^b	198 (31.3)	81 (45.5)	117 (25.8)	
Don't know	169 (26.7)	24 (13.5)	145 (31.9)	
If I leak urine when I am pregnant n (%)				0.45
I don't know if there is treatment available	73 (11.5)	15 (8.4)	58 (12.7)	
I will ask for help	364 (57.5)	106 (59.6)	258 (56.7)	
I won't think incontinence is a problem	159 (25.1)	44 (24.8)	115 (25.3)	
I won't ask for help as I will be embarrassed	28 (4.4)	8 (4.5)	20 (4.4)	
How often should you exercise your PFM? n (%)				<.001
Daily, or two or more times per week	432 (68.3)	150 (84.3)	282 (62.0)	
Once per week	26 (4.1)	8 (4.5)	18 (4.0)	

Never	26 (4.1)	4 (2.2)	22 (4.8)
Don't know	146 (23.1)	14 (7.9)	132 (29.0)

^a respondents able to choose more than one answer

^b both answers are correct

Abbreviations: ANE = antenatal education, PFM = pelvic floor muscles, UI = urinary incontinence

Table 4. Attendance at antenatal education classes categorised by parity and language spoken at home

Attendance at ANE classes	Parity			
	Primiparous		Multiparous	
	Speaks LOTE (n = 60)	Speaks English (n = 256)	Speaks LOTE (n = 53)	Speaks English (n = 251)
Planning to attend	33 (55.0)	162 (63.3)	10 (18.9)	21 (8.4)
Not planning to attend	14 (23.3)	29 (11.3)	30 (56.6)	109 (43.4)
Attended already	7 (11.7)	41 (16.0)	9 (17.0)	117 (46.6)
Don't know / ANE unavailable	6 (10.0)	24 (9.4)	4 (7.6)	4 (1.6)

Abbreviations: ANE = antenatal education; LOTE = languages other than English