

Health-seeking behaviour among patients with faecal incontinence in a Malaysian academic setting

April Camilla Roslani, FRCS¹, Rajeshwary Ramakrishnan, MS², Soraya Azmi, MPH^{3,4}

¹Department of Surgery, Faculty of Medicine, University of Malaya, Lembah Pantai, Kuala Lumpur, Malaysia, ²Department of Surgery, Sultanah Fatimah Hospital, Muar, Johor, Malaysia, ³Azmi Burhani Consulting, Petaling Jaya, Selangor, Malaysia, ⁴Veras Research, Petaling Jaya, Selangor, Malaysia

ABSTRACT

Background: Faecal incontinence (FI) is not a common presenting complaint in Malaysia, and little has been published on this topic. Since it is a treatable condition, a greater understanding of factors contributing to health-seeking behaviour is needed in order to plan effective provision of services.

Methods: A survey of 1000 patients and accompanying relatives, visiting general surgical and obstetrics and gynaecology clinics for matters unrelated to FI, was conducted at University Malaya Medical Centre between January 2009 and February 2010. A follow-up regression analysis of the 83 patients who had FI, to identify factors associated with health-seeking behaviour, was performed. Variables identified through univariate analysis were subjected to multivariate analysis to determine independence. Reasons for not seeking treatment were also analysed.

Results: Only eight patients (9.6%) had sought medical treatment. On univariate analysis, the likelihood of seeking treatment was significantly higher among patients who had more severe symptoms (OR 30.0, $p=0.002$), had incontinence to liquid stool (OR 3.83, $p=0.002$) or when there was an alteration to lifestyle (OR: 17.34; $p<0.001$). Nevertheless, the only independently-associated variable was alteration in lifestyle. Common reasons given for not seeking treatment was that the condition did not affect patients' daily activities (88.0%), "social taboo" (5.3%) and "other" reasons (6.7%).

Conclusions: Lifestyle alteration is the main driver of health-seeking behaviour in FI. However, the majority do not seek treatment. Greater public and physician-awareness on FI and available treatment options is needed.

KEY WORDS:

Faecal incontinence, health-seeking behaviour

BACKGROUND

Health-seeking behaviour is variously defined as the utilisation of a healthcare system for perceived ill-health by a specified population, or more generally, lifestyle choices including utilisation of healthcare services, to maintain health.¹ This behaviour is important to consider in a condition such as faecal incontinence (FI), which is the loss of

control of solid or liquid stools.² The condition can be treated, and yet it tends not to be a common presenting complaint. It is unclear, in the Malaysian context, whether it is perceived to be a condition of ill-health or whether there are other barriers to presentation since there is currently little published data on the topic.

FI is more common in the elderly, and, is often caused by structural damage to the anal sphincters during childbirth or anorectal surgery.² It may therefore be perceived as an expected consequence of those events. Similarly, other common risk factors that are associated with FI such as advanced age, obesity and neurological conditions such as multiple sclerosis, Alzheimer's disease, diabetic neuropathy, stroke or Parkinson's disease³⁻⁶ may be seen as the main healthcare issue, with FI being overlooked. Despite the troublesome nature of the problem, embarrassment may prevent many from voicing their concerns until the problem is severe.^{2,5,7}

In an earlier publication, we reported a survey involving 1000 subjects at the University Malaya Medical Centre (UMMC), an academic hospital in Kuala Lumpur.⁸ The prevalence of FI in our survey was 8.3%, and higher among patients greater than 65 years old, but equal among men and women.⁸ Our findings were similar to most population-based studies in Asia, which have reported prevalences between 5% and 15%, with a higher prevalence among the elderly.⁹⁻¹⁴ In terms of health-seeking behaviour, few studies have reported findings, particularly in Asia.^{11,12,15}

The regression analysis we present here was performed in order to identify the factors associated with health-seeking behaviour in these patients, and why they might not seek medical treatment.

MATERIALS AND METHODS

As has been described, a survey on faecal incontinence was conducted between June 2009 and February 2010 at University Malaya Medical Centre (UMMC).⁸ Survey participants were recruited based on convenience sampling of adults 18 years and above, among patients and accompanying relatives visiting the the general surgical and obstetrics and gynaecology clinics for matters unrelated to FI. Verbal consent was obtained prior to respondents completing the questionnaires. Only participants who were able to

This article was accepted: 17 October 2017

Corresponding Author: April Camilla Roslani

Email: april@ummc.edu.my

understand the contents of the English-language questionnaire were included.

Ethics approval for the study was obtained from the Medical Ethics Committee of the University Malaya Medical Centre on 20th February 2009, document approval number 638.1. The questionnaire was self-administered and included screening questions on demographics, symptoms of FI, surgical history and chronic illness.

Subjects who reported FI were asked additional questions about their treatment-seeking behaviour and severity of the condition. Those who did not seek help were asked to give reasons, choosing from four options (social taboo, fear of operation, not affecting daily routine, others).

FI severity was assessed using the Wexner Continence Grading Scale (WCGS).¹⁶ The WCGS determines severity of faecal incontinence according to types of incontinence, whether to solid, liquid or gas, wearing of pads and lifestyle alteration. Each WCGS domain contains five levels of severity ranging from 0 (never) to 4 (always). The total WCGS score ranges from zero (no incontinence) to 20 (complete incontinence). Within the WCGS, severity of FI is divided into mild (1-4), moderate (5-8) and severe (more than 9).

Descriptive analysis was performed to obtain means and standard deviations. Cross tabulation was generated between health-seeking for FI (yes or no) and selected demographic and clinical factors. Simple logistic regression was conducted to determine the association of the severity of FI and WCGS variables with health-seeking behaviour. Variables identified thusly were subjected to multivariate analysis to identify independently associated variables. Analysis was performed using SPSS® for Windows, 17th edition.

RESULTS

A total of 1000 respondents answered the survey. Among them, 83 reported positive symptoms of FI. Of these, eight patients (9.6%) reported having sought medical treatment for FI. Demographic and clinical characteristics of patients with FI are shown in Table I. These factors were tested for associations with health-seeking behaviour but were not found to be significant.

Association between severity and impact of FI and health-seeking behaviour

Univariate analysis showed severity of FI, type of incontinence and lifestyle alteration to be associated with health-seeking behaviour.

Patients with severe FI were reported to have 30 times higher likelihood of medical treatment compared to those with mild FI (Table II). Patients with one unit higher score of liquid incontinence were 3.83 times more likely to seek medical treatment (OR: 3.83; 95% CI: 1.64, 8.98), and those who had one unit higher score in lifestyle alteration were 17.34 times more likely to seek medical treatment for their symptoms (OR: 17.34; 95% CI: 3.81, 78.91) (Table III). There was no significant relationship between incontinence to solids, gas and usage of pads with health-seeking behaviour (Table III).

Multivariate analysis, of variables that had shown association with health-seeking behaviour on univariate analysis, revealed only life-style alteration as being independently-associated with health-seeking behaviour ($p < 0.001$).

Reasons for not seeking treatment for symptoms of FI

The majority of patients with FI (75 patients, 90.4%) did not seek medical treatment. Among the reasons for not seeking treatment given were that patients felt the condition did not affect their daily activities (66 patients, 88.0%), feeling that the topic was a "social taboo" (4 patients, 5.3%) and "other" reasons (5 patients, 6.7%) (Figure 1). Patients did not report the fear of surgery as a reason for not seeking treatment.

DISCUSSION

Literature on FI in Asian populations suggests its prevalence ranges from 5% to 15%,⁹⁻¹⁴ with health-seeking behaviour ranging from 41% to 50%.^{11,12,15}

Other studies have shown that FI has a negative impact on quality of life (QoL).^{7,17-19} Loss of bowel control causes feelings of shame and embarrassment. Depending on a patient's ability to cope, it may affect their self-esteem,²⁰ lead to anxiety and depression, or social isolation.^{5,11,21} Patients may face barriers in seeking support, since the topic could be considered impolite at least, or taboo at worst.²² Some patients do not even discuss it with people closest to them.²²⁻²⁴

Compared to other Asian studies, our rate of health-seeking among FI affected patients was low. However, the link we found between severity of FI and health-seeking behaviour concurs with that reported by Barucha et al.²³

Although incontinence to liquid was a significant factor, incontinence to solids, flatus and the need to wear a pad, did not seem to bear any influence on health-seeking behaviour. This may be due to patients learning to live with the problem, or considering their symptoms a normal consequence of aging.^{7,11,12,20} It is often assumed that women have a greater readiness to seek professional help than men, but we have shown that health-seeking behaviour in FI is similar regardless of age, gender or race.

We found that patients only sought treatment when symptoms had deteriorated enough to disrupt their daily activities. If patients are only seeking help when the situation is dire, this may indicate an unacceptably low level of awareness among the public. Given that many patients were also under follow-up for chronic conditions, there would have been missed opportunities to discuss and diagnose FI by doctors and other healthcare professionals, reflecting a low level of awareness amongst the latter as well.

In a study by Chelvanayagam, most participants found that the study they were involved in was the first opportunity to openly speak about the effects of FI on their lives.²⁴ In our study, although 5.3% reported that "social taboo" was the reason for not seeking treatment, there was a portion of patients (6.7%) who did not seek treatment for "other" reasons. These reasons were not described further in the survey answers provided, and would require further elucidation.

Table I: Demographic and clinical characteristics of patients with FI

Description	Treatment sought	
	Yes, n (%)	No, n (%)
Total (N=83)	8 (9.6%)	75 (90.4%)
Age group		
Mean (SD)	60.0 (14.3)	46.6 (16.4)
15-24 years	0 (0)	3 (4.0)
25-44 years	0 (0)	31 (41.3)
45-64 years	6 (75.0)	26 (34.6)
More than 65 years	2 (25.0)	15 (20.0)
Gender		
Male	3 (37.5)	17 (22.7)
Female	5 (62.5)	58 (77.3)
Ethnic		
Malay	2 (25.0)	42 (56.0)
Chinese	2 (25.0)	19 (25.3)
Indian	4 (50.0)	12 (16.0)
Others	0 (0)	2 (2.7)
Frequency of defaecation in a week		
1-7 times	5 (62.5)	50 (66.7)
8-15 times	2 (25.0)	17 (22.7)
16-21 times	0 (0.0)	5 (6.7)
More than 22 times	1 (12.5)	3 (4.0)
Duration of defaecation		
1-5 minutes	5 (62.5)	33 (44.0)
6-10 minutes	1 (12.5)	17 (22.7)
11-15 minutes	0 (0.0)	14 (18.7)
than 15 minutes	2 (25.0)	11 (14.7)
Past surgical history		
Yes	3 (37.5)	19 (25.3)
No	5 (62.5)	56 (74.7)
Chronic illness		
Diabetes mellitus		
Yes	2 (25.0)	13 (17.3)
No	6 (75.0)	62 (82.7)
Hypertension		
Yes	1 (12.5)	17 (22.7)
No	7 (87.5)	58 (77.3)
Hypercholesterolaemia		
Yes	2 (25.0)	3 (4.0)
No	6 (75.0)	72 (96.0)
Ischaemic heart disease		
Yes	1 (12.5)	3 (4.0)
No	7 (87.5)	72 (96.0)
Others		
Yes	2 (25.0)	11 (14.7)
No	6 (75.0)	64 (85.3)

*p>0.05 (not significant) for all variables analysed

Table II: Relationship between health-seeking behaviour and severity of FI

Variables	Sought treatment		p-value	OR (95% CI)
	Yes (N=8), n(%)	No (N=75), n(%)		
Mild FI	3 (3.6)	60 (72.3)	Ref	1
Moderate FI	2 (2.4)	13 (15.7)	0.243	3.07 (0.47, 20.31)
Severe FI	3 (3.6)	2 (2.4)	0.002*	30.00 (3.56, 252.97)

*statistically significant at p<0.05

Table III: Relationship between health-seeking behaviour with Wexner Continence Grading Scale (WCGS) variables

Symptom of incontinence	Sought treatment		Total	p-value Mean \pm SD	OR (95% CI)
	Yes Mean \pm SD	No Mean \pm SD			
Solid	1.12 \pm 1.36	0.56 \pm 1.06	0.61 \pm 1.09	0.177	1.46 (0.84, 2.55)
Liquid	2.00 \pm 0.93	0.73 \pm 0.86	0.86 \pm 0.94	0.002*	3.83 (1.64, 8.98)
Gas	1.00 \pm 1.41	1.56 \pm 1.32	1.51 \pm 1.33	0.264	0.70 (0.37, 1.31)
Pad	0.50 \pm 1.07	0.20 \pm 0.77	0.23 \pm 0.80	0.333	1.39 (0.71, 2.71)
Lifestyle alteration	1.50 \pm 1.07	0.09 \pm 0.29	0.23 \pm 0.59	<0.001*	17.34 (3.81, 78.91)

*statistically significant at p<0.05

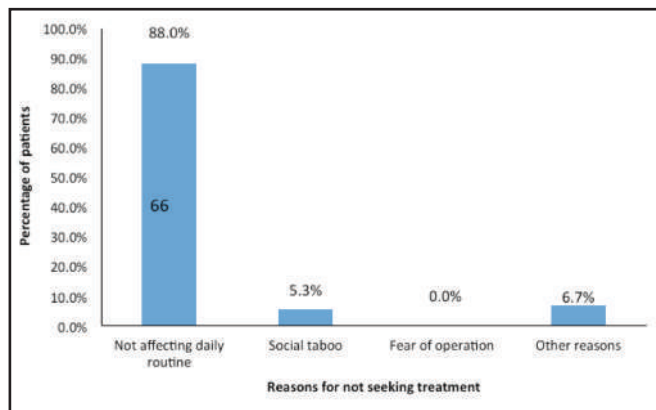


Fig. 1: Reasons for not seeking treatment reported by respondents with FI symptoms.

The challenges to communicating about FI in the population studied indicate the same barriers exist in Malaysia as it does in other countries,^{20,22} and may contribute to the low health-seeking rate. This deserves greater attention, as any barriers that exist need to be overcome if adequate management of FI is to be achieved.

We believe that our study provides insight into the health-seeking behaviour of Malaysian patients with FI, which has not previously been reported. Indirectly, it highlights the low level awareness of FI and its management among patients. Since it is generally treatable, patients should not have to continue tolerating the discomfort and lifestyle alterations of FI, and its negative impact on quality of life.

Healthcare professionals need to be more aware of, and ask questions about FI, in order to encourage open discussion during consultations for other illnesses. This could help patients overcome any stigma or taboo that they may perceive. At a community and perhaps national level, there should also be steps taken to promote early diagnosis and referral to enable prompt treatment.

To catalyse efforts, education sessions for patients and the lay public could be promoted to help remove taboo or perceptions of distastefulness. A discussion about FI should be treated as any discussion about other health conditions. Approaches to reach out and have discussions with members of the public are needed. This can be done through public forums and use of traditional mass media e.g., radio and television as well as harnessing the the internet and social media to encourage a wider discussion on FI.

There were several limitations noted in our study. Firstly, since the population sample was from a single academic centre selected through convenience, thus our results might not be generalisable to the population of the country. Furthermore, the final number of patients with FI and had sought medical treatment were small, which may be why no statistically significant association in the demographic and clinical variables could be shown.

In addition, the WCGS has not been formally validated in the Malaysian population, and we had to exclude participants who were not conversant in English, reducing the generalisability of the findings. However, given that there is no pre-existing data on prevalence of FI in Malaysia, designing a validation study at this juncture would have required a number of unsubstantiated assumptions.

Similarly, there is no pre-existing literature on FI health-seeking behaviour in the Malaysian context. This qualitative aspect of our study should be viewed as exploratory, but provides some justification for further work in this area.

Based on the survey method that we used, we have little insight into what "other" reasons may have prevented patients from seeking help. The effect of social taboo and stigmatisation could perhaps be better addressed through a qualitative study. Since other studies have found quality of life is affected by FI,^{7,17-19} a future study among Malaysians should include quality of life measurement.

CONCLUSION

Lifestyle alteration seems to be the main driver of health-seeking behaviour in FI. However, the majority do not seek treatment, and qualitative studies are needed to better understand the reasons Malaysian patients for this, as well as the challenges faced by our physicians in diagnosing and managing FI. Increasing awareness among patients, doctors and other healthcare professionals regarding FI and its treatment may help to increase health-seeking behaviour.

FUNDING

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

ACKNOWLEDGEMENTS

The authors would like to thank Associate Professor Noor Azmi b. Mat Adenan of the UMMC Department of Obstetrics and Gynaecology for granting permission to conduct the survey at the Department of Obstetrics and Gynaecology and antenatal clinics, Dr. Noor Elina Shaari, Hernany Shamsuddin and Saidatul Saadah Ramlan of UMMC for their assistance with the data collection.

REFERENCES

1. MacKian S. A review of health seeking behaviour: problems and prospects. Health Systems Development Programme University of Manchester 2003.
2. Rudolph W, Galandiuk S. A practical guide to the diagnosis and management of fecal incontinence. *Mayo Clin Proc* 2002; 77(3): 271-5.
3. Perry S, Shaw C, McGrother C, Matthews RJ, Assassa RP, Dalosso H, et al. Prevalence of faecal incontinence in adults aged 40 years or more living in the community. *Gut* 2002; 50(4): 480-4.
4. Pares D, Vallverdu H, Monroy G, Amigo P, Romagosa C, Toral M, et al. Bowel habits and fecal incontinence in patients with obesity undergoing evaluation for weight loss: the importance of stool consistency. *Dis Colon Rectum* 2012; 55(5): 599-604.
5. Edwards N, Jones D. The prevalence of faecal incontinence in older people living at home. *Age Ageing* 2001; 30: 503-7.
6. Shamliyan T, Wyman J, Bliss DZ, Kane RL, Wilt TJ. Prevention of urinary and fecal incontinence in adults. *Evid Rep Technol Assess (Full Rep)* 2007; (161): 1-379.
7. Bartlett L, Nowak M, Ho YH. Impact of fecal incontinence on quality of life. *World J Gastroenterol* 2009; 15(26): 3276-82.

8. Roslani A, Ramakrishnan R, Azmi S, Daryl J, Goh A. Prevalence of faecal incontinence and its related factors among patients in a Malaysian academic setting. *BMC Gastroenterology*. 2014; 14: 95.
9. Nakanishi N, Tatara K, Naramura H, Fujiwara H, Takashima Y, Fukuda H. Urinary and fecal incontinence in a community-residing older population in Japan. *J Am Geriatr Soc* 1997; 45(2): 215-9.
10. Chen GD, Hu SW, Chen YC, Lin TL, Lin LY. Prevalence and correlations of anal incontinence and constipation in Taiwanese women. *Neurourol Urodyn* 2003; 22(7):664-9.
11. Bener A, Saleh N, Burgut FT. Prevalence and determinants of fecal incontinence in premenopausal women in an Arabian community. *Climacteric* 2008; 11(5):429-35.
12. Rizk D, Hassan M, Shaheen H, Dunn E. The prevalence and determinants of health care-seeking behavior for fecal incontinence in multiparous United Arab Emirates females. *Dis Colon Rectum* 2001; 44(12): 1850-6.
13. Ge J, Lu Y, Shen W, Zhang Y, Li X, Yang P, et al. Prevalence of fecal incontinence among adult women in Beijing district [Article in Chinese]. *Zhonghua Fu Chan Ke Za Zhi* 2010; 45(9):669-72.
14. Kang H, Jung H, Kwon K, Song E, Choi J, Kim S, et al. Prevalence and predictive factors of faecal incontinence. *J Neurogastroenterol Motil* 2012; 18(1): 86-93.
15. Horng S, Chou Y, Huang N, Fang Y, Chou P. Fecal incontinence epidemiology and help seeking among older people in Taiwan. *Neurourol Urodyn* 2014; 33(7): 1153-8.
16. Jorge JM, Wexner SD. Etiology and management of fecal incontinence. *Dis Colon Rectum* 1993; 36(1): 77-97.
17. Boreham M, Richter H, Kenton K, Nager C, Gregory T, Aronson M, et al. Anal incontinence in women presenting for gynecologic care: Prevalence, risk factors, and impact upon quality of life. *Am J Obstet Gynecol* 2005; 192(5): 1637-42.
18. Damon H, Dumas P, Mion F. Impact of anal incontinence and chronic constipation on quality of life. *Gastroenterol Clin Biol* 2004; 28(1): 16-20.
19. Rothbarth J, Bemelman WA, Meijerink WJ, Stiggelbout AM, Zwinderman AH, Buyze-Westerweel ME, et al. What is the impact of fecal incontinence on quality of life? *Dis Colon Rectum* 2001; 44(1): 67-71.
20. Garcia JA, Crocker J, Wyman JF, Krissovich M. Breaking the cycle of stigmatization: managing the stigma of incontinence in social interactions. *J Wound Ostomy Continence Nurs* 2005; 32(1): 38-52.
21. Yip S, Dick M, McPencow A, Martin D, Ciarleglio M, Erekson E. The association between urinary and fecal incontinence and social isolation in older women. *Am J Obstet Gynecol*. 2013; 208(2): 146.e1-7.
22. Bliss D, Norton C, Vodusek D. Raising awareness about fecal incontinence. *Neurourol Urodyn*. 2010; 29: 612-5.
23. Bharucha AE, Zinsmeister AR, Locke GR, Seide BM, McKeon K, Schleck CD, et al. Prevalence and burden of fecal incontinence: a population-based study in women. *Gastroenterology* 2005;129(1):42-9.
24. Chelvanayagam S, Norton C. Quality of life with faecal continence problems. *Nurs Times*. 2000; 96(31 Suppl): 15-7.