

## THE AUSTRALIAN PELVIC FLOOR QUESTIONNAIRE IS A VALID MEASURE OF PELVIC FLOOR SYMPTOMS IN PATIENTS FOLLOWING SURGERY FOR COLORECTAL CANCER

### Hypothesis / aims of study

Although many symptom-specific measures exist for assessing the severity of bladder and bowel symptoms, few have been validated in patients following surgery for colorectal cancer (CRC). The Australian Pelvic Floor Questionnaire (APFQ) is one of the few validated questionnaires that integrate bladder, bowel, and sexual function as well as pelvic organ prolapse symptoms [1]. Although the APFQ was designed for a female population, the questions in the bladder and bowel function domains of the APFQ are also applicable to males. The aim of this study was to assess the construct validity and clinical utility of the bladder and bowel function domains of the APFQ in male and female patients following surgery for CRC.

### Study design, materials and methods

This was an exploratory analysis of data from two prospective studies. Data from patients who had undergone surgery for stage I-III CRC were analysed. Bladder and bowel symptoms were measured using three validated questionnaires: the APFQ, the International Consultation on Incontinence Questionnaire Short Form Questionnaire for urinary incontinence (ICIQ-UI SF), and the International Consultation on Incontinence Questionnaire-Bowel Module (ICIQ-B) post-cancer treatment. The APFQ consists of 42 questions in 4 domains (bladder, bowel, and sexual function and pelvic organ prolapse); the total score for both bladder and bowel function domains combined ranges from 0 to 20 [1]. The ICIQ-UI SF has three scored items related to frequency and amount of urinary incontinence and quality of life and a self-diagnostic item, not scored. An overall ICIQ-UI SF score ranges from 0 to 21 [2]. The ICIQ-B contains a total of 21 questions, and 17 of 21 questions are scored and arranged in three domains: bowel pattern (score range 1-21), bowel control (score range 0-28), and quality of life (score range 0-26) [3]. Pearson's correlation coefficients were used to examine the bivariate relationships among the bladder domain of the APFQ and the total score of ICIQ-UI SF, as well as the correlations between the bowel domain of the APFQ and ICIQ-B subscales.

### Results

Results demonstrated positive correlations between the APFQ bladder domain and the ICIQ-UI SF ( $r = 0.71-0.83$ ,  $p < 0.01$ ), and the APFQ bowel domain and the ICIQ-B ( $r = 0.69-0.79$ ,  $p < 0.01$ ) in males (Table 1) and females (Table 2).

Table 1 Correlations between APFQ bladder and bowel domains, ICIQ-UI SF, and ICIQ-B in males (n=25)

	APFQ Bladder	ICIQ-UI SF Total	APFQ Bowel	ICIQ-B pattern	Bowel ICIQ-B control	Bowel ICIQ-B of life	Quality
APFQ Bladder	-	0.71	0.40	0.11	0.16	0.04	
ICIQ-UI SF Total	0.71	-	0.42	0.09	0.11	0.14	
APFQ Bowel	0.40	0.42	-	0.79	0.69	0.78	
ICIQ-B Bowel pattern	0.11	0.09	0.79	-	0.74	0.76	
ICIQ-B Bowel control	0.16	0.11	0.69	0.74	-	0.62	
ICIQ-B Quality of life	0.04	0.14	0.78	0.76	0.62	-	

Table 2 Correlations between APFQ bladder and bowel domains, ICIQ-B, and ICIQ-UI SF in females (n=19)

	APFQ Bladder	ICIQ-UI SF Total	APFQ Bowel	ICIQ-B pattern	Bowel ICIQ-B control	Bowel ICIQ-B of life	Quality
APFQ Bladder	-	0.83	0.30	0.19	0.80	0.51	
ICIQ-UI SF Total	0.83	-	0.23	0.05	0.80	0.36	
APFQ Bowel	0.30	0.23	-	0.75	0.70	0.77	
ICIQ-B Bowel pattern	0.19	0.05	0.75	-	0.47	0.82	
ICIQ-B Bowel control	0.80	0.80	0.70	0.47	-	0.75	
ICIQ-B Quality of life	0.51	0.36	0.77	0.82	0.75	-	

### Interpretation of results

This exploratory analysis showed moderate correlations between the bladder and bowel function domains of APFQ and the ICIQ-UI SF and ICIQ-B in males and females. The positive associations observed with the bladder and bowel function domains of APFQ and the other two symptom severity questionnaires support the construct validity of the APFQ. The results of this study suggest that the APFQ bladder and bowel domains may be valid in the CRC population, and also that these domains may be utilised in adult male populations.

### Concluding message

This study suggested that the APFQ may be a valid and easily administered measurement tool for use in CRC populations in clinical trials and practice. Further research using larger cohorts is warranted to evaluate additional psychometric properties including reliability, responsiveness, sensitivity, and specificity of the APFQ in CRC to further demonstrate the utility of the instrument within this population.

### References

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Disclosures

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