

#410 Comparison of interview-based and self-administered assessment of anal incontinence using Wexner and St. Mark's incontinence scores

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Aim

Our aim was to compare self-administered and interview-based reports of anal incontinence (AI) symptoms made on the same day using a combined questionnaire enabling scoring of both the St. Mark's incontinence score (SMIS) and the Wexner score (StMWex).

Methods

Patients reported symptoms of AI on a self-reported StMWex questionnaire in the patients' waiting area at their local anorectal outpatients' clinic prior to clinical investigations. After clinical investigations, an interview-based StMWex questionnaire was completed by the consultant surgeon or physiotherapist who were blinded to the self-administered reports of AI. Assessment of correlation between the individual items of the interview-based and self-reported SMIS (iSMIS and sSMIS, respectively), and Wexner score (iWexner and sWexner, respectively) were assessed using Spearman's rho, and agreement was assessed using weighted kappa statistics (κ). Data were treated anonymously, and no personal data except age and gender was reported.

Results

A total of 75 female and 30 male consecutive patient with a mean age of 55 years (SD:14.3; Range: 24–85) responded. The mean incontinence scores were 9.7 (SD:7.0) on the iSMIS, 9.5 (SD:6.9) on the sSMIS, 8.4 (SD:8.5) on the iWexner, and 8.3 (SD:5.8) on the sWexner scores. Spearman's rho showed a strong relationship between the two total SMIS scores ($r=.903$, $n=97$, $p<.001$) and the two Wexner scores ($r=.912$, $n=101$, $p<.001$), and explained variance was 82% ($r^2=.815$) and 83% ($r^2=.832$) for the SMIS and the Wexner scores, respectively.

The agreement of +/- 1 point and +/- 2 points between interview-based and self-administered were 54% and 60%, respectively for the SMIS and 60% and 75%, respectively for the Wexner score. The assessment of consistency between the individual items of the iSMIS and sSMIS showed substantial agreement ($\kappa \geq 0.60$) for all items except almost perfect agreement for the items regarding incontinence of gas and using pad or plug ($\kappa \geq 0.81$) (Table 1) (Landis & Koch, *The measurement of observer agreement for categorical data*. Biometrics. 1977:159–74).

Interpretation of results and concluding message

The level of agreement in the two scores in this joint questionnaire is substantial and there is no trend of over- or underestimation of either the St. Mark's score or the Wexner score, though the Wexner score appears to have slightly better agreement.

Considering the level of correlation agreement between the two methods of reporting AI symptoms in this joint questionnaire, both the St. Mark's incontinence score and the Wexner score may be used as an interview-based as well as a self-administered incontinence scores.

Table 1. Agreement between interview-based and self-reported symptoms of anal incontinence using a combined questionnaire enabling joint scoring of the St. Mark's (n=97 paired assessments) and Wexner incontinence scores (n=101 paired assessments).

	Agreement (Kappa %)	Agreement $\pm 1 / \pm 2$ points	Weighted Kappa
Incontinence formed stool	95	91/94	0.78*
Incontinence loose stool	95	87/94	0.77*
Incontinence gas	95	91/95	0.85*
Impact lifestyle	92	85/89	0.78*
Pads	94	89/94	0.86*
Plug	99	-	0.66
Stopping medication	91	-	0.72
Urgency 15 min	84	-	0.66

*Weighted Kappa; squared weights; 1.000, 0.9600, 0.8400, 0.6400, 0.3600

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