

IMPACT OF FECAL INCONTINENCE SEVERITY ON HEALTH DOMAINS

Hypothesis / aims of study

Fecal incontinence can have a major impact on the quality of life of those affected. In practice the severity of fecal incontinence is often assessed with a clinical grading scale. As these scales have been developed by clinicians, they may not reflect the overall health impact of fecal incontinence.

Our aim was to study the impact of fecal incontinence on general health and to relate the impact to the severity of fecal incontinence.

Study design, materials and methods

Patients in a prospective diagnostic cohort study, performed in 16 medical centres in [blinded for review], were invited to this study.

The severity of fecal incontinence was assessed using the incontinence scale developed by Vaizey [1]. This scale contains items about the type (gas, fluid, solid) and frequency of incontinence and additional items addressing social invalidation, the need to wear a pad or plug, the use of constipating medication and the presence of urge incontinence. The total score on the Vaizey scale ranges from 0 (complete continence) to 24 (complete incontinence).

All patients completed the Euroqol Q-5D instrument, which evaluates the existence of problems on five health domains: mobility, self-care, usual activities, pain/discomfort and anxiety/depression. To assess the impact of fecal incontinence on the different health domains an analysis of responses on the EQ-5D of the complete patient group was performed. The percentage of patients reporting problems was calculated and compared with the results obtained in a female reference population [2].

Subsequently patients were assigned to one of five subgroups, based on the quintiles of the Vaizey incontinence score. The subgroup boundaries were 15, 17, 19 and 21. Mantel-Haenszel chi-square statistic was used to test for significant differences in the percentage of patients reporting problems across severity subgroups.

Results

Data were available on 192 patients, of which 168 were female (87.5%). Their mean age was 58.7 years (SD \pm 13) with a mean duration of incontinence of 8.5 years (SD \pm 8.3).

Table 1 shows the number of patients reporting problems in each of the five health domains. For all domains, except for self-care, these percentages are significantly higher than in a female reference population ($p < 0.001$).

Domain	Fecal incontinence (n=192)	Reference population (n=1892)
Mobility	34%* (n=66)	19%
Self care	6.5% (n=12)	4.2%
Usual activities	50%* (n=95)	16%
Pain/discomfort	52%* (n=98)	34%
Anxiety/depression	37%* (n=70)	24%

Percentage of patients with fecal incontinence and of female reference population reporting problems on the respective health domains. Data derived from responses on the EuroQol5D.

* Significant difference between patients with fecal incontinence and reference population (p<0.001)

The mean Vaizey incontinence score was 18.2 (SD \pm 3.3). Patients in the five score categories (<15; 16-17; 17-18; 19-21; >21) showed no significant differences for age, duration of incontinence, proportion of males or presence of urinary incontinence.

The health domain 'usual activities' was highly negatively affected by the severity of incontinence. The percentage of patients reporting problems on this dimension was 36% in the least severe incontinence group compared to 84% in the most severe group (p<0.001). A similar trend could be observed for the domains pain/discomfort and anxiety/depression in which the percentage of patients reporting any problems ranged from 37% and 21%, respectively, in the least severe group to 68% (p=0.031) and 53% (p=0.012) in the most severe group. No significant trends could be observed in the domains of mobility and self-care

Interpretation of results

The results of this study show that fecal incontinence can have a large impact on the health domains mobility, usual activities, pain/discomfort and anxiety/depression. Patients with fecal incontinence reported significantly more problems in all health domains, except self-care, than a female reference population. The severity of incontinence, as measured with the clinical Vaizey incontinence score, was significantly associated with the percentage of reported problems. Patients with higher Vaizey incontinence scores, reflecting more severe fecal incontinence, more often reported problems in the domains usual activities, pain/discomfort and anxiety/depression.

Concluding message

Fecal incontinence was shown to lead to problems in the health domains mobility, usual activities, pain/discomfort and anxiety/depression while patients with more severe fecal incontinence, as measured by the Vaizey score, report more often problems in these domains. It has yet to be demonstrated to what extent effective therapy will lead to an improvement in the clinical severity grading and health status.

References

1. Prospective comparison of faecal incontinence grading systems. Gut 1999;44:77-80.
2. Variations in population health status: results from a United Kingdom national questionnaire survey. BMJ 1998;316:736-741.

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