Background

The assessment of gastrointestinal symptoms is key for targeted management of patients with a variety of gastrointestinal disorders. On the other hand, symptom assessment in the clinical setting is constrained by the available time and potentially biased by the special areas of interest of the clinician. Thus there is a need for a clinical instrument that supports the standardised assessment of patients.

Aim

To assess the validity of the SAGIS tool.

Method

Questionnaire Development: Initial interviews were conducted with 8 patients referred for the diagnostic work up of digestive symptoms and relevant complaints identified. The instrument was refined to 22 then 21 items. In addition, patients were asked to document what was their first and second most important problem.

Questionnaire Validation: The questionnaire was given to 1384 consecutive patients. The sample was randomly split into derivation (n = 716) and validation datasets (n = 668). The clinician also provided a working clinical diagnosis.

Results

Exploratory factor analysis conducted on the derivation sample supported a five factor model. This accounted for 68% of the total variance. The five GI symptom clusters were labelled as abdominal pain/discomfort (seven items), diarrhoea/incontinence (five items), gastroesophageal reflux disease/regurgitation symptoms (four items), nausea/vomiting (three items) and difficult defecation and constipation (2 items).

Confirmatory factor analysis conducted on the validation sample supported the initially developed five-factor measurement model (χ²=4.76; CFI = 0.92; RMSEA = 0.075). Further, 19 of 21 items demonstrated consistent factor loadings across gastrointestinal disease groups (e.g. functional gastrointestinal disorders (FGID), inflammatory bowel disease, liver disease, p<0.01).

Discriminant validity comes from observing that epigastric symptoms (F1) was higher in the FGID group than all other (p=0.0001) and all symptom groups demonstrated some differentiation between disease groups.

Conclusion

The SAGIS questionnaire has good psychometric properties to assess type and severity of gastrointestinal symptoms in a standardised manner. The SAGIS shows differentiation across gastrointestinal disease groups and appears to support the clinical assessment of and symptom-based categorisation of patients.