Assessment of Functional Gastrointestinal Disorders Using the Gastro-Questionnaire

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The purpose was to investigate the reliability and factorial structure of the Gastro-Questionnaire for the screening and psychometric measurement of functional gastrointestinal disorders (FGDs). The questionnaire contains 27 gastrointestinal symptom items drawn from the Rome–II criteria, which are rated by frequency and severity, as well as some items to exclude organic diseases. The questionnaire was administered to 259 normal participants and to 69 participants of the annual German meeting of patients with irritable bowel syndrome. Reliability was good (Cronbach’s alpha for frequency and severity items: \( \alpha = .86 \) and \( \alpha = .87 \)). Factor analysis yielded a six-factor solution explaining 60.7% of the variance. Diagnostic frequencies ranged from 32.8% to 100% for FGDs in general, from 1.3% to 76.8% for irritable bowel syndrome, and from 7.0% to 100% for functional dyspepsia, depending on samples and symptom definitions. The Gastro-Questionnaire is a very economic, reliable, and content-valid instrument for the assessment of FGDs.

Key words: functional gastrointestinal disorders, assessment, Gastro-Questionnaire, symptom frequencies, Rome criteria

Functional gastrointestinal disorders (FGDs) are reported to be very common. They are commonly defined as “a variable combination of chronic or recurrent gastrointestinal symptoms not explained by structural or biochemical abnormalities” (Drossman et al., 1990). However, this basic definition has to be regarded as preliminary, because physiological etiology might be verified by future research. In epide-
miological studies on irritable bowel syndrome (IBS), which is the most prominent of these disorders, lifetime prevalence rates of about 15% to 20% in the general population were observed (Talley, Zinsmeister, van Dyke, & Melton, 1991; Jones & Lydeard, 1992; Longstreth & Wolde-Tsadik, 1993). Agréus, Svärdsudd, Nyrén, and Tibblin (1995) found that 25% of an unselected Swedish adult population fulfilled diagnostic criteria for functional dyspepsia (FD). In a study by Drossman et al. (1993), 69% of a sample of 5,430 U.S. householders met the criteria for at least 1 of 20 FGDs; that is, more than two thirds of the U.S. population may be affected by FGDs.

However, frequencies vary widely. In the study by Drossman et al. (1993), only 11% of the participants reported symptoms compatible with the diagnosis of IBS, and prevalence of FD was less than 3%. Sandler (1990) reported findings from the Second National Health and Nutrition Examination survey indicating that 4.7 million people (2.9% of the U.S. population) had self-reported diagnoses of IBS (spastic colon or mucous colitis). Talley, Boyce, and Jones (1996) found IBS in 11.8% and FD in 11.5% of the participants in an Australian random sample. In a recent study, Herschbach, Henrich, and Von Rad (1999) reported lifetime prevalence rates of about 2% for IBS and 11% for FD in a representative sample of the German adult population.

Discrepancies may be explained partly by different diagnostic definitions, as determined by the Manning criteria (Manning, Thompson, Heaton, & Morris, 1978), Rome criteria (Drossman et al., 1990), and Rome–II criteria (Talley et al., 1999; Thompson et al., 1999). These are characterized by different symptom sets and definitions yielding different prevalence rates. Recent epidemiological studies on IBS were based on the international consensus (Rome) criteria for FGDs (Drossman et al., 1990). According to the Rome criteria, FGD diagnoses are based on specific symptom sets and scores. In addition, a distinct threshold for the persistence of functional gastrointestinal symptoms (FGSs; >12 weeks during the last year) was defined for most FGDs in a recent revision of the Rome criteria, the Rome–II criteria (Clouse, Richter, Heading, Janssens, & Wilson, 1999; Talley et al., 1999; Thompson et al., 1999; Whitehead et al., 1999). However, compared with common definitions of psychosomatic disorders (e.g., somatof orm disorders) according to the Diagnostic and Statistical Manual of Mental Disorders (4th ed. [DSM–IV]; American Psychiatric Association, 1994) or the International Classification of Diseases (ICD–10 (World Health Organization, 1993), the Rome–II criteria are incomplete. They contain no severity index (e.g., distress, impairment, illness behavior) or threshold definitions to differentiate between clinically relevant symptoms and common conditions of lowered well-being. This problem is very salient for diagnostic definitions in epidemiological studies, because symptom frequencies basically depend on what is regarded as an abnormal condition. Likewise, this problem is relevant for research and practice of standardized psychological treatments, which need to re-