

Factors of importance for work productivity in Irritable Bowel Syndrome

Akademisk avhandling

Som för avläggande av medicine doktorsexamen vid Sahlgrenska akademien, Göteborgs universitet kommer att offentligen försvaras i Arvid Carlsson, Medicinaregatan 3, 413 90 Göteborg, fredagen den 3e februari, klockan 09:00.

av Åsa Frändemark

Fakultetsopponent:

Adjungerad professor Susanna Walter

Linköpings Universitet, Sverige

Avhandlingen baseras på följande delarbeten

- I. Frändemark Å, Törnblom H, Jakobsson S, Simren M. *Work Productivity and Activity Impairment in Irritable Bowel Syndrome (IBS): A Multifaceted Problem.* Am J Gastroenterol 2018;113(10):1540-9
- II. Frändemark Å, Jakobsson Ung E, Törnblom H, Simrén M, Jakobsson S. *Fatigue: a distressing symptom for patients with irritable bowel syndrome.* Neurogastroenterol Motil 2017;29(1):e12898
- III. Frändemark Å, Törnblom H, Simrén M, Jakobsson S. *Maintaining work life under threat of symptoms: a grounded theory study of work life experiences in persons with Irritable Bowel Syndrome.* BMC Gastroenterol 2022;22(1):73
- IV. Frändemark Å, Törnblom H, Hreinsson J, Andresen V, Benninga M.A, Corazziari E.S, Fukudo S, Mulak A, Santos J, Sperber A.D, Bangdiwala S.I, Palsson O.S, Simrén M. *Work productivity and activity impairment in subjects with Disorders of Gut-Brain Interaction: data from the Rome Foundation Global Epidemiology Study.* Submitted.

**SAHLGRENSKA AKADEMIN
INSTITUTIONEN FÖR MEDICIN**



Factors of importance for work productivity in Irritable Bowel Syndrome

Åsa Frändemark

Avdelningen för molekylär och klinisk medicin, Institutionen för medicin, Sahlgrenska akademien, Göteborgs universitet, Sverige, 2023.

Abstract

Disorders of gut-brain interaction (DGBI) are highly prevalent in the general population, and irritable bowel syndrome (IBS) is one of the most common DGBI. Having IBS, and many of the DGBI, can impact work life. However, this has not been fully explored. The overall aim of this thesis was to investigate factors that affect the ability to work in patients with DGBI and IBS.

In **study I**, work productivity impairment was examined in patients with IBS. There was a substantial work impairment, and gastrointestinal(GI)-specific anxiety, IBS symptom severity and general fatigue were independently associated with overall work impairment. In **study II**, as fatigue was identified as an important factor for the reduced ability to work in patients with IBS, fatigue was explored further. Patients with IBS and severe fatigue had more severe IBS symptoms, more depression and anxiety, and lower sense of coherence compared to patients with moderate or mild fatigue. Fatigue impacted many aspects of daily life, and negative effects on stamina and control over bodily processes were prominent. In **study III**, constructivist grounded theory was used to explore work life in patients with IBS. The core category *Balancing work life under threat of symptoms*, consisted of the categories *being prepared, restricting impact, adjusting and reconciling*, all while being under threat of symptoms. The categories were understood as different strategies, and outcomes of strategies, used to lessen and restrict the threat of symptoms, where adjusting was seen as an obstacle, leaving the persons more susceptible to symptoms. In **study IV**, a multinational, population-based cohort was used to investigate work productivity impairment in persons with DGBI. Persons with DGBI were demonstrated to have significantly higher degrees of work productivity and activity impairment compared to those without, and for persons with DGBI in several anatomical regions, work productivity impairment increased for every additional region.

In conclusion, the results from this thesis confirm a substantial negative impact on work life for persons with IBS and DGBI, and that fatigue, psychological distress and somatic symptoms, not only confined to the GI tract, contribute to this impairment. Further, we found that behaviors and strategies can be applied to lessen impact on work life. These results highlight the importance of a broad view on the management of persons with DGBI and IBS, and that the overall symptom burden, both physical and mental, should be considered to optimize the outcome.

Keywords: Irritable bowel syndrome, disorders of gut-brain interaction, work productivity impairment, work, fatigue