N01 Does physical activity positively impact fatigue in individuals with Inflammatory Bowel Disease?

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Background

- Fatigue is a problematic and burdensome symptom experienced by individuals with Inflammatory Bowel Disease (IBD)
- The optimal management of fatigue remains poorly understood, with physical activity likely to be a beneficial way to manage the symptom
- Limited insight into the type, duration and intensity of physical activity that may positively impact IBD-fatigue

This study aims to investigate the relationship between fatigue and the level of physical activity and intensity of activity in individuals with IBD across Europe

Methods

DESIGN: A multicenter European, cross-sectional, correlational study

SAMPLE: A consecutive sample of 188 adult patients with an endoscopic and histological diagnosis of Crohn's disease (CD) or ulcerative colitis (UC)

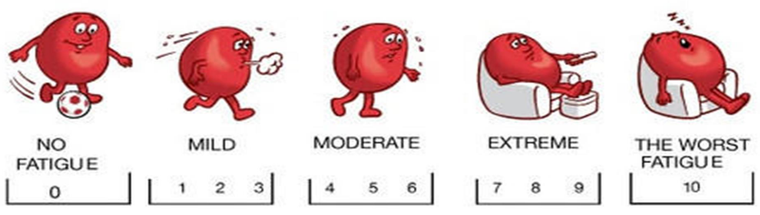
SETTING: Six IBD centres across Ireland (n = 2 sites, 42%), the United Kingdom (n =3; 40%) and Denmark (n = 1; 17%)

OUTCOMES:

1. Fatigue - IBD Fatigue scale (Czuber-Dochan et al. 2014)
2. Physical activity levels and intensity of activity - objectively measured using the triaxial accelerometers (ActiGraph wGT3X-BT) and subjectively measured using self-reported physical activity log during a seven consecutive day period
3. Disease activity - Harvey Bradshaw Index (CD) and the Simple Clinical Colitis Activity Index (UC)
4. Sociodemographic and clinical variables

ETHICAL APPROVAL: Approved by Beaumont Hospital Ethics Committee[Ref number: 17/65]; Cork Research Ethics Committee [Ref number: ECM 4 (gg) 07/11/17), NHS Health Research Authority (Ref number: 19/NS/0075)

DATA ANALYSIS: Descriptive and inferential analysis



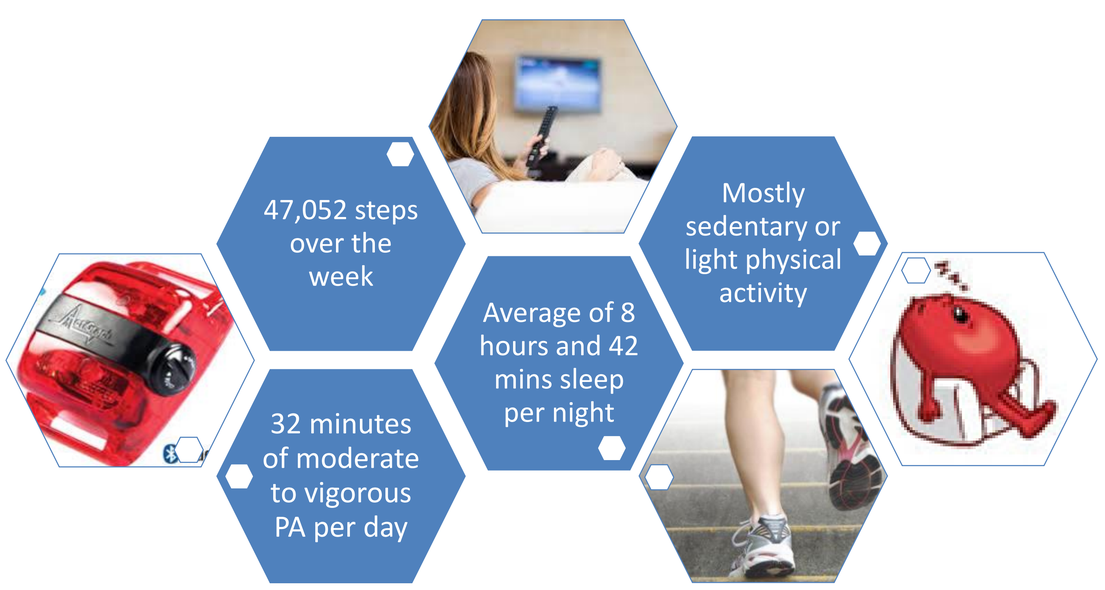
Results

Table 1. Demographic and clinical characteristics, n=188

	n (%)
Age (years): mean (SD)	40.4 (14.7)
range	67
Sex [1]	
Male	70 (42.2)
Female	108 (57.4)
Disease type [1]	
Crohn's Disease	111 (59.0)
Ulcerative colitis	76 (40.6)
Years since diagnosis: median (IQR)	6.7 (2.8 - 12.8)
range	50.0
Disease activity [3]	
Remission	95 (56.2)
Active Disease	73 (43.8)

[1] n = 187; [2] n = 184; [3] n = 168

- A moderate level of fatigue (IBDF Section 1 Md [IQR] = 10 [6 – 13]), but low impact of daily activities (IBDF Section 2 Md [IQR] = 31.5 [18 – 53]) reported
- Fatigue was predominantly intermittent in nature (72%)



- There was no evidence of a unique linear or non-linear relationship between each of the objective measurements of physical activity with IBD-fatigue
- This lack of evidence extended separately to patients in remission and to patients with active disease
- A statistically significant moderately-strong relationship was found between disease activity (measured using both HBI and SCCAI) and level of fatigue for both patients of Crohn's disease (rs = .327, p = .001, n = 96) and ulcerative colitis (rs = .353, p = .003, n = 71)

Conclusion

This large multicenter study revealed no association between objective measurements of physical activity and self-reported IBD-fatigue, regardless of disease activity or country of origin. Results indicate that **engaging or not engaging in physical activity has no differential impact on self-reported IBD-fatigue.**

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