

DOES DAILY PHYSICAL ACTIVITY DIFFER BETWEEN PATIENTS WITH FEMOROACETABULAR IMPINGEMENT SYNDROME AND PATIENTS WITH HIP DYSPLASIA?

Lisa C. U. Reimer^{ab}, Signe Kierkegaard^{bc}, Inger Mechlenburg^{ab} and Julie S. Jacobsen^{de}

^aDepartment of Orthopedic Surgery, Aarhus University Hospital. ^bDepartment of Clinical Medicine, Aarhus University. ^cH-Hip, Department of Physio and Occupation Therapy and Orthopedic Surgery, Horsens Hospital. ^dResearch Centre for Health and Welfare Technology, Programme for Rehabilitation & Department of Physiotherapy, VIA University College. ^eResearch Unit for General Practice in Aarhus

INTRODUCTION

Femoroacetabular impingement syndrome (FAIS) and acetabular hip dysplasia (HD) are common hip diseases and diagnosed radiographically by acetabular and femoral angles, as well as clinical symptoms. Patients with FAIS have often been described as athletic males and patients with HD as non-athletic females.

Aim: compare accelerometer-based physical activity (PA) and self-reported function in sport/recreation between these groups and healthy volunteers.

RESULTS

Patients with FAIS spent more time on very low intensity PA (e.g. sitting) and less time on low intensity PA (e.g. standing) than patients with HD (Table 1).

Patients with FAIS and HD spent less time on high intensity PA (e.g. fast walking or jumping) and were more sedentary, than the healthy volunteers.

Self-reported sport/recreation, did not differ between patients with FAIS and patients with HD (Figure 3).

Fig. 1 Data output

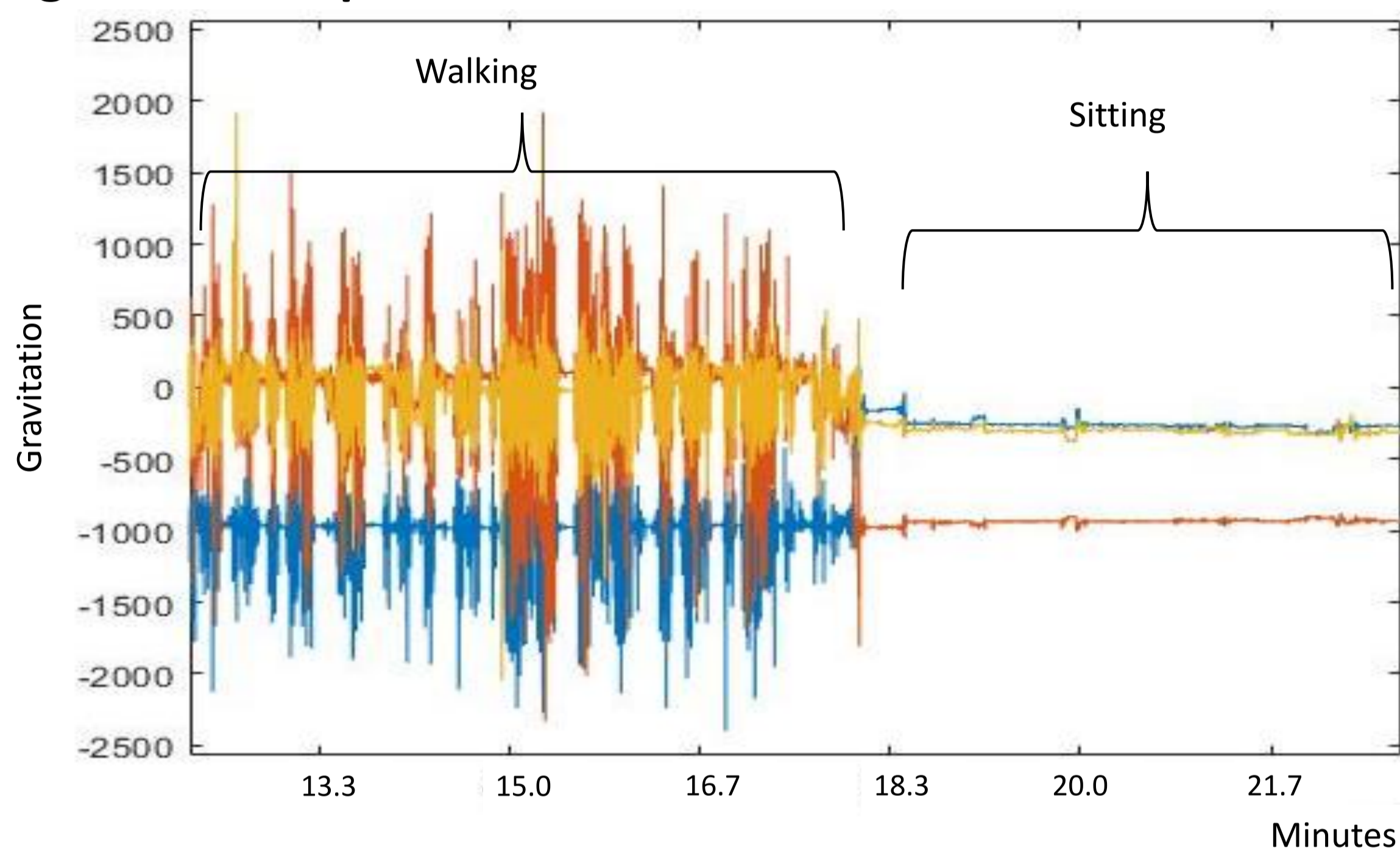
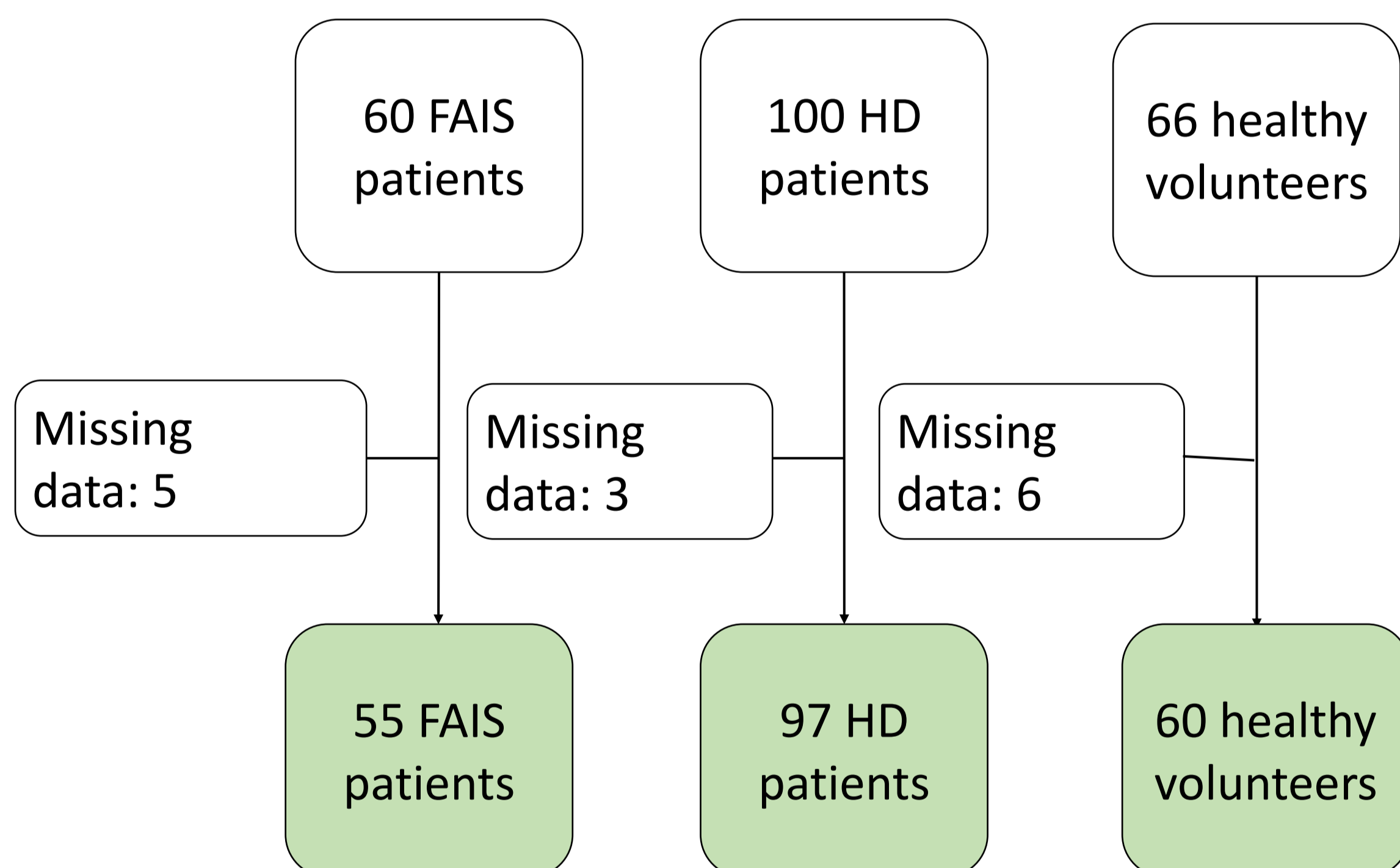


Fig. 2 Flow chart of participants

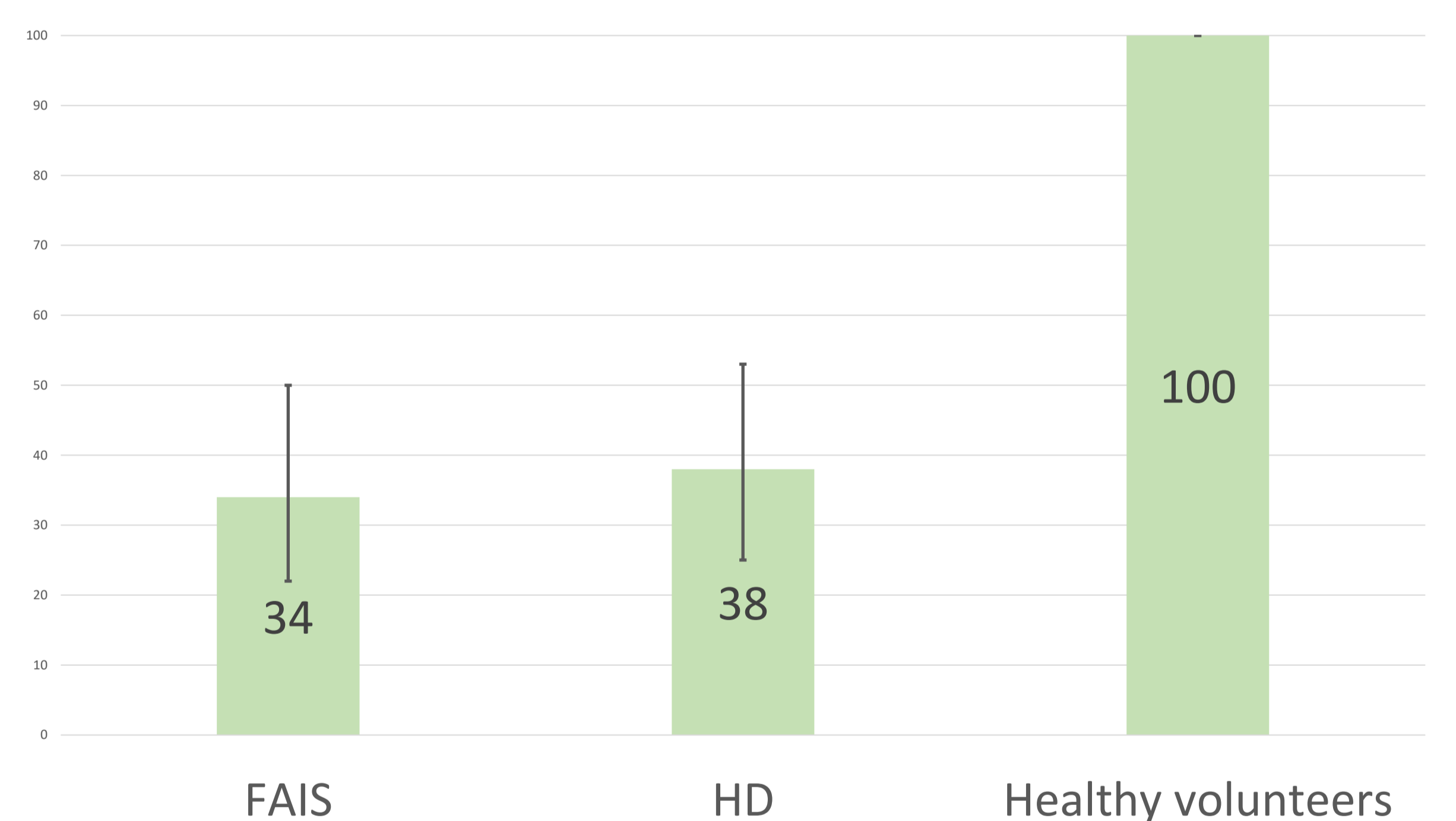


Tab. 1 Physical activity

	FAIS	HD	Healthy volunteers
Steps total, no.	8038 (3348)	7696 (2849)	7904 (2534)
Cadence, steps/min	97.3 (7.3)	98.3 (6.7)	98.9 (7.0)
Very low intensity, min	713 (82) ^{ab}	639 (85)	622 (118)
Low intensity, min	100 (43) ^{ab}	121 (47)	116 (43)
Moderate intensity, min	52 (24)	57 (25)	60 (22)
High intensity, min	40 (25) ^b	38 (18) ^b	50 (22)

^aStatistically significant different compared with patients with HD. ^bStatistically significant different compared with healthy volunteers. Results are presented as mean in minutes with standard deviations (SD).

Fig. 3 Self-reported sport/recreation, scale 0-100, 100 best



METHOD

PA was measured with accelerometer-based sensors worn on the thigh for 7 days. A validated algorithm was used for identifying different types of activities (Figure 1). Self-reported sport/recreation was measured with the Copenhagen Hip and Groin Outcome Score (HAGOS). Data on patients with FAIS or HD and healthy volunteers were collected in other studies (1-3).

CONCLUSION

Patients with FAIS appear to be less physically active compared with patients with HD. However, both groups seem to perform less high intensity PA compared with healthy volunteers. This is interesting, as self-reported function in sport/recreation does not differ between patients with FAIS and HD.

AARHUS UNIVERSITET

 H-Hip

 VIA University College

Scan → download artiklen

 Kontakt: lisareimer@clin.au.dk

REFERENCES

- (1)Kierkegaard S et al. Despite patient-reported outcomes improve, patients with femoroacetabular impingement syndrome do not increase their objectively measured sport and physical activity level 1 year after hip arthroscopic surgery. Results from the HAFI cohort. *Knee Surgery, Sport Traumatol Arthrosc.* 2019.
- (2)Jacobsen JS et al. Does the physical activity profile change in patients with hip dysplasia from before to 1 year after periacetabular osteotomy? *Acta Orthop.* 2018;89(6):622-627.
- (3)Reimer LCU et al. Efficacy of periacetabular osteotomy followed by progressive resistance training compared to progressive resistance training as non-surgical treatment in patients with hip dysplasia (PreserveHip) - a protocol for a randomised controlled trial. *BMJ Open.* 2019;9:e032782.