

Background

- Children with inflammatory bowel disease (IBD) report deficits in well-being.¹
- Physical activity (PA) can improve symptoms & prevent disease flares.^{2,3}
- No study has examined variability in PA & well-being.

Objectives

1. Describe variability in well-being & PA levels in IBD.
2. Examine the relationship between PA & well-being.
3. Compare well-being of children with IBD who meet PA recommendations to those that do not.

Methods

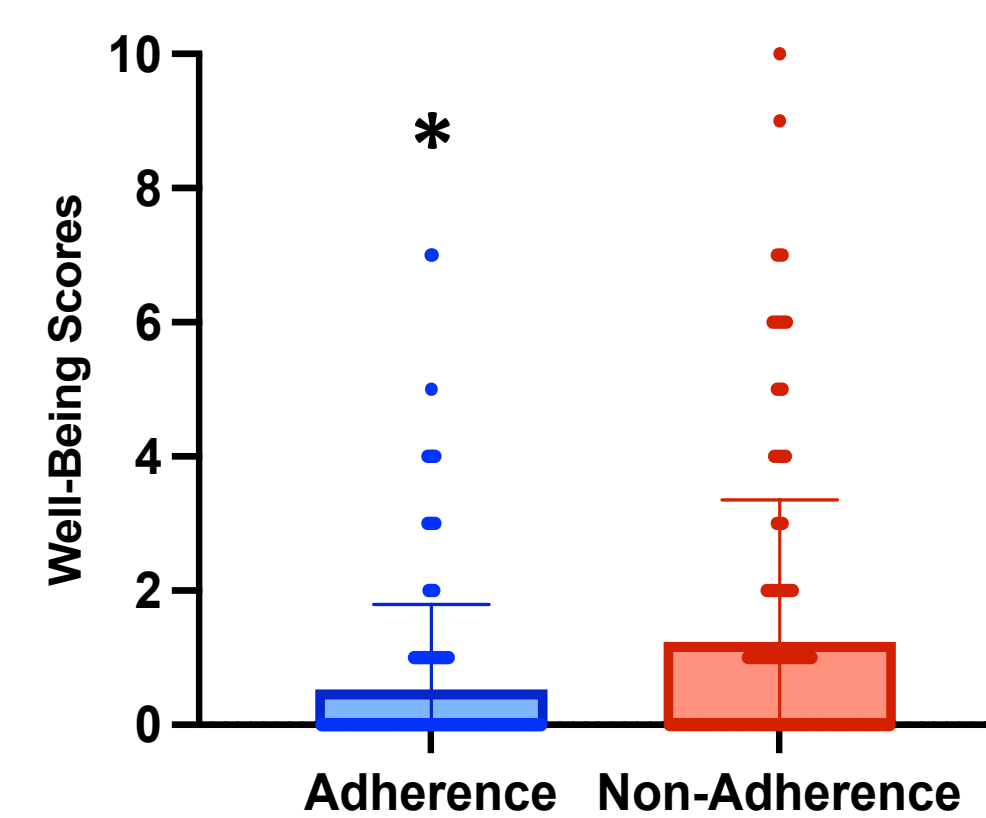
- Participants aged 7-17 with a diagnosis of IBD.
- Participants wore an accelerometer to measure total physical activity (TPA), light (LPA), & moderate-to-vigorous (MVPA) physical activity for 4-8 weeks.
- Participants self-reported IBD-related well-being daily for 4-8 weeks (0 = best; 10 = worst).

Results

- 9 participants (11.1% F), age = 10.3 ± 1.8 years; diagnosed = 3.3 ± 1.6 years.
- **Objective #1** – Variability in well-being & PA:

Well-Being (median [IQR])	MVPA (CV)	TPA (CV)	LPA (CV)
0 [0.71]	34.1%	21.7%	19.3%

- **Objective #2** – Days with higher MVPA also had better well-being scores ($\rho = -0.208$; $p < 0.001$).
- **Objective #3** – Children with IBD that adhered to activity recommendations of 60-min of daily MVPA had better well-being scores than those who did not (* $p < 0.001$):



Discussion

- Limitations: small sample size (recruitment is on-going), participants are in remission (spread of well-being).
- Strengths: daily measures of well-being over 4-8 weeks.
- Next steps: evaluating determinants of well-being & designing an evidence-based PA intervention to target well-being in youth with IBD.

Daily physical activity and well-being are interconnected and variable in children with IBD.

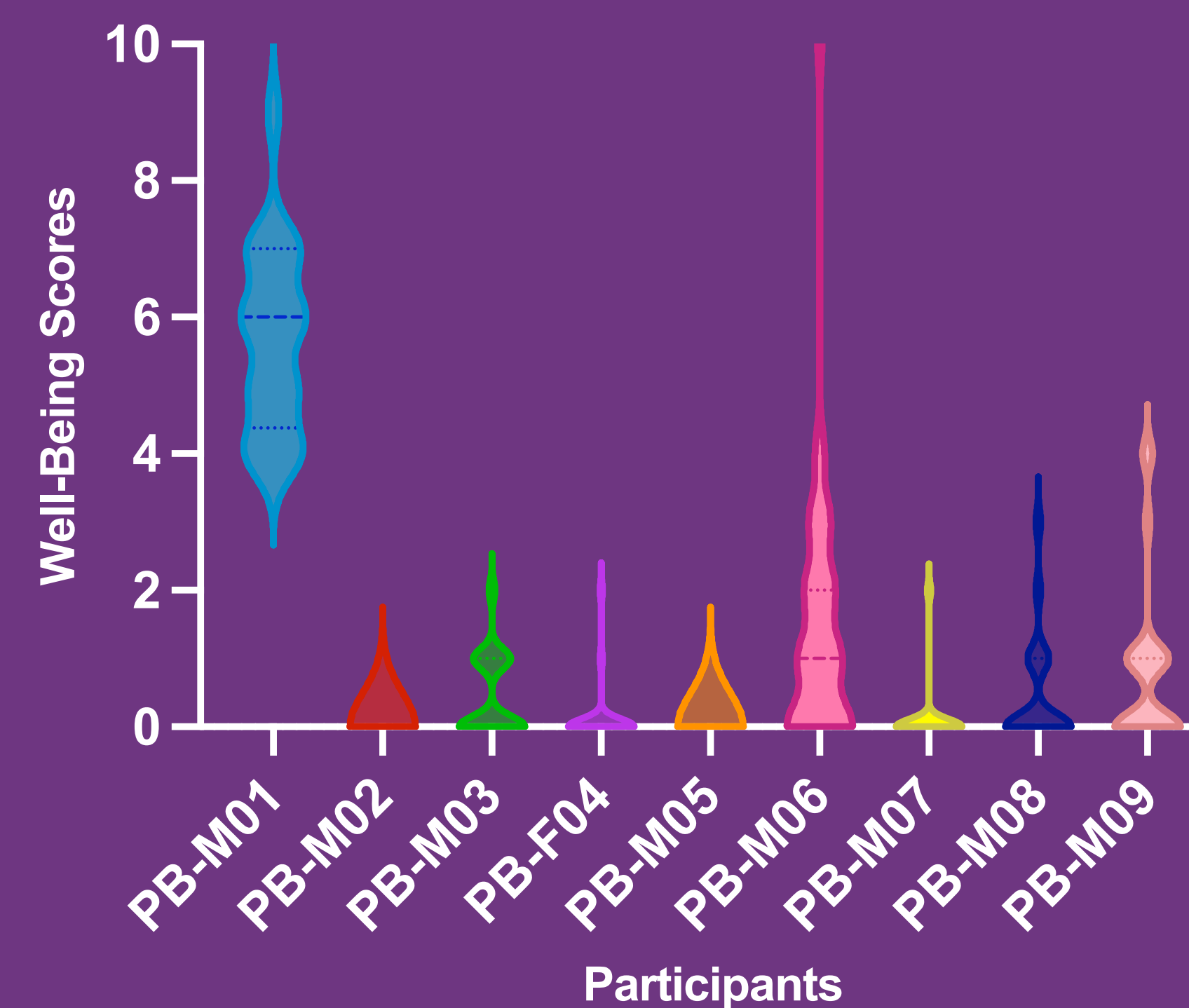


Figure 1: Spread of well-being scores for each participant. The wider the plot, the more scores are reported at that level.

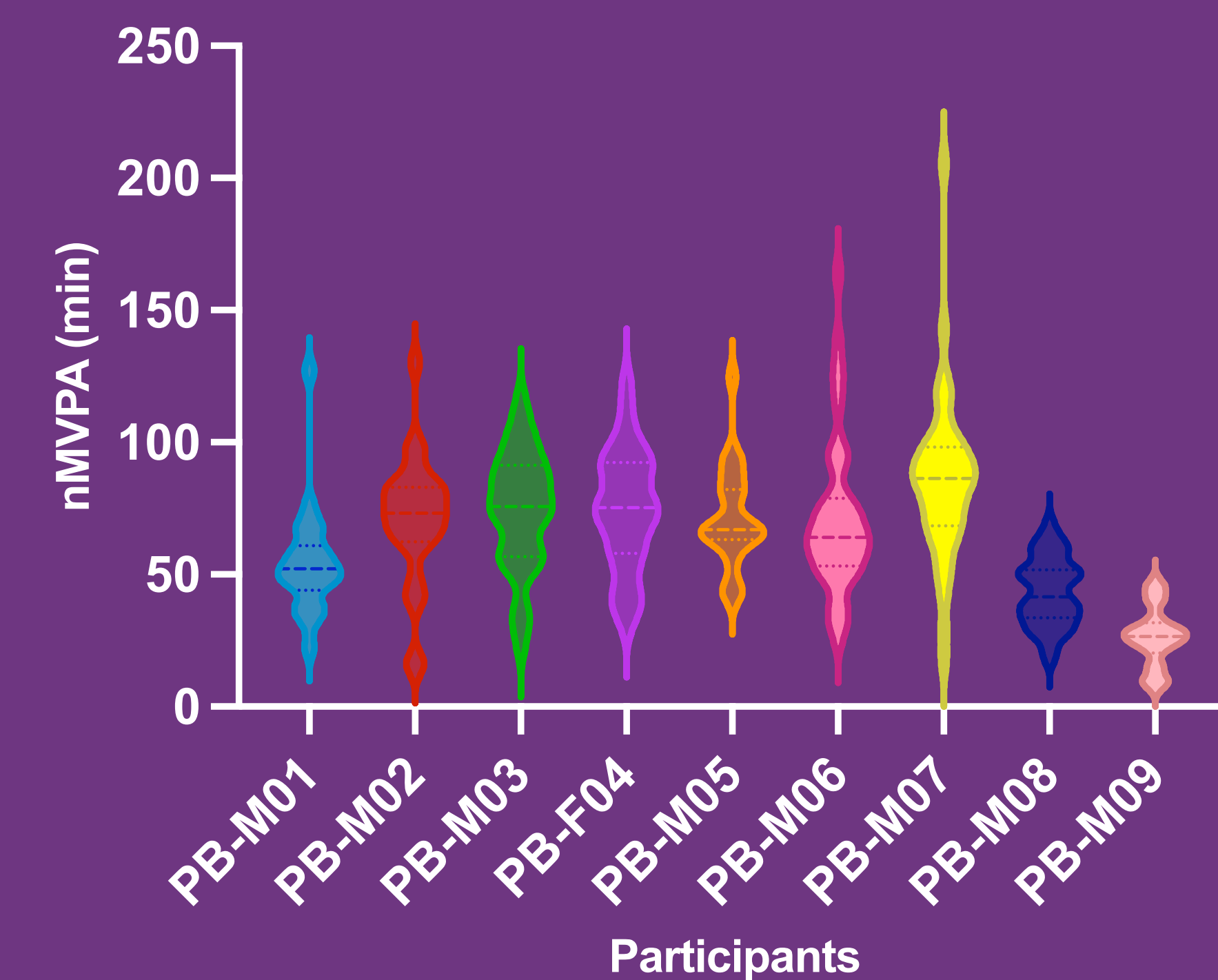


Figure 2: Spread of time spent in moderate-to-vigorous physical activity (MVPA) every day for each participant. The wider the plot, the more days at that level of activity.



References

1. Kim, J *Pediatr Gastroenterol Nutr*, 68(1), 2019
2. Scheffers, J *Pediatr Gastroenterol Nutr*, 77(2), 2023
3. Taylor, *Eur J Appl Physiol*, 118(4), 2018

Acknowledgements

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