

Fig. 1 CONSORT flow diagram of participant screening, randomization, follow-up, and analysis

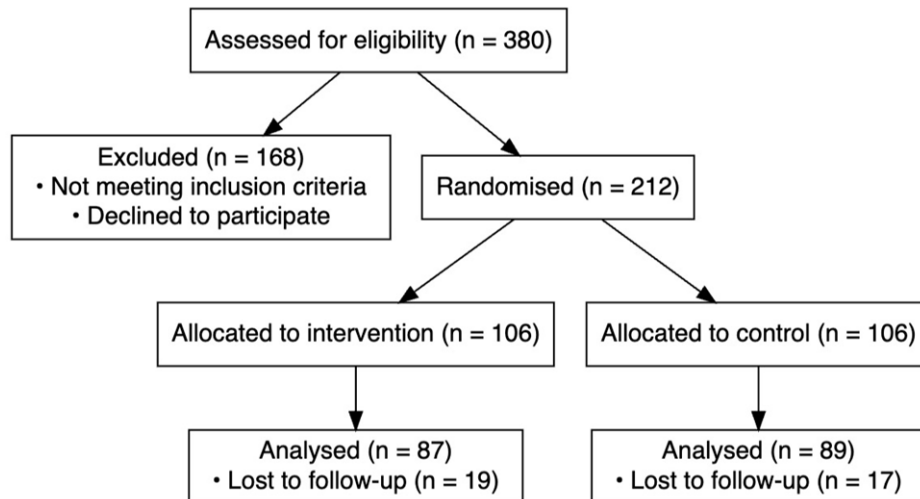


Table 1. Baseline demographic and clinical characteristics of participants by group

Characteristic	Intervention (n = 87)	Control (n = 89)	p-value	SMD ^a
Age, years ^a	34.0 (22.0, 41.0)	36.0 (25.0, 46.0)	0.208	-0.21
Adults in household, n ^a	3.0 (2.0, 5.0)	3.0 (2.0, 4.0)	0.717	0.11
Children in household, n ^a	1.0 (0.0, 2.0)	1.0 (0.0, 2.0)	0.196	0.22
Height, cm ^a	153.6 (148.6, 156.9)	152.6 (148.5, 156.0)	0.492	0.08
Weight, kg ^a	42.5 (39.7, 46.2)	42.6 (38.7, 46.3)	0.668	-0.04

Body mass index, kg/m ²	18.4 (16.7, 19.4)	18.0 (17.4, 19.4)	0.939	-0.07
Baseline Fatigue Severity Scale score (sum) ^a	43.0 (37.0, 51.0)	46.0 (39.0, 49.0)	0.359	-0.06
MUST malnutrition risk category			0.303	0.18
Medium	24 (27.6%)	32 (36.0%)		
High	63 (72.4%)	57 (64.0%)		
Highest education level completed			0.309	0.33
No formal education	15 (17.2%)	14 (15.7%)		
Primary school	40 (46.0%)	47 (52.8%)		
Middle school	21 (24.1%)	23 (25.8%)		
High school	10 (11.5%)	3 (3.4%)		
University/Graduate	1 (1.1%)	2 (2.2%)		
Main household income source			0.714	0.26
Daily labor	43 (49.4%)	44 (49.4%)		
Factory work	8 (9.2%)	7 (7.9%)		
Job with salary	13 (14.9%)	19 (21.3%)		
Other (Specify)	10 (11.5%)	5 (5.6%)		

Shop work	9 (10.3%)	9 (10.1%)		
Small business	4 (4.6%)	5 (5.6%)		
Current employment status			0.789	0.10
Not employed	41 (47.1%)	42 (47.2%)		
Part-time	37 (42.5%)	35 (39.3%)		
Full-time	9 (10.3%)	12 (13.5%)		
Housing type			0.119	0.31
Own house	37 (42.5%)	51 (57.3%)		
Rented house	41 (47.1%)	29 (32.6%)		
Temporary shelter	9 (10.3%)	9 (10.1%)		

^aMedian (25th, 75th percentile). Categorical variables are reported as n (%).

^bSMD = standardised mean difference (Cohen's d for continuous variables; generalised SMD for categorical variables). Values near 0 indicate good balance between groups; values above ~0.1-0.2 are conventionally taken to indicate meaningful imbalance, independent of sample size.

Table 2. Fatigue Severity Scale (FSS) item and total scores at baseline and endline by group

FSS item*	Baseline (T0)			Endline (T1)			Change (T1-T0)			
	Intervention	Control	p-value	Intervention	Control	p-value	Intervention	Control	HL diff (95% CI)	p-value
1. Motivation is lower when fatigued	5.0 (5.0, 7.0)	6.0 (5.0, 7.0)	0.154	5.0 (2.5, 6.0)	6.0 (5.0, 7.0)	0.004	-1.0 (-3.0, 0.0)	0.0 (-2.0, 1.0)	-1.0 (-1.0, 0.0)	0.034
2. Exercise brings on fatigue	5.0 (3.0, 6.0)	4.0 (3.0, 6.0)	0.882	4.0 (2.0, 5.0)	5.0 (3.0, 6.0)	0.002	-1.0 (-2.0, 1.0)	0.0 (-1.0, 2.0)	-1.0 (-1.0, 2.0)	0.006
3. Easily fatigued	5.0 (3.0, 6.0)	5.0 (3.0, 6.0)	0.354	3.0 (2.0, 5.0)	5.0 (3.0, 6.0)	0.051	-1.0 (-3.0, 0.5)	0.0 (-2.0, 2.0)	-1.0 (-1.0, 2.0)	0.011
4. Fatigue interferes with physical functioning	5.0 (3.0, 7.0)	5.0 (5.0, 6.0)	0.400	5.0 (2.0, 6.0)	5.0 (5.0, 6.0)	0.058	0.0 (-2.0, 1.0)	0.0 (-1.0, 1.0)	0.0 (-1.0, 1.0)	0.188
5. Fatigue causes frequent problems	5.0 (4.0, 7.0)	5.0 (5.0, 6.0)	0.775	5.0 (1.0, 6.0)	5.0 (5.0, 6.0)	0.008	0.0 (-2.0, 0.0)	0.0 (-1.0, 1.0)	-1.0 (-1.0, 0.0)	0.005

								2.0,			
								0.0)			
6. Fatigue prevents sustained physical functioning	5.0 (3.5, 7.0)	5.0 (4.0, 6.0)	0.47	5.0 (2.0, 6.0)	5.0 (4.0, 7.0)	0.00	-1.0 (-2.5, 0.0)	0.0 (-1.0, 1.0)	-1.0 (-2.0, 0.0)	0.01	2
7. Fatigue interferes with duties/responsibilities	5.0 (4.0, 6.0)	5.0 (5.0, 7.0)	0.64	5.0 (2.0, 6.0)	5.0 (5.0, 7.0)	0.00	-1.0 (-3.0, 0.5)	0.0 (-1.0, 2.0)	-1.0 (-2.0, 0.0)	0.02	1
8. Fatigue is among most disabling symptoms	5.0 (3.0, 6.0)	5.0 (3.0, 6.0)	0.51	4.0 (1.0, 5.0)	5.0 (2.0, 6.0)	0.09	0.0 (-2.0, 1.0)	0.0 (-2.0, 1.0)	0.0 (-1.0, 1.0)	0.61	2
9. Fatigue interferes with work/family/social life	5.0 (3.0, 7.0)	5.0 (5.0, 7.0)	0.31	5.0 (1.0, 6.0)	5.0 (4.0, 6.0)	0.02	-1.0 (-2.0, 1.0)	0.0 (-2.0, 1.0)	0.0 (-1.0, 0.0)	0.16	7
FSS total score (sum of 9 items)	43.0 (37.0, 51.0)	46.0 (39.0, 49.0)	0.35	39.0 (22.5, 49.0)	45.0 (38.0, 53.0)	0.00	-6.0 (-19.0, 3.0)	0.0 (-8.0, 9.0)	-6.0 (-11.0, -2.0)	0.00	7

^aValues are median (25th, 75th percentile) FSS item score (range 1-7) or total score (range 9-63); higher scores indicate greater fatigue. p-values are from Mann-Whitney U tests comparing the intervention and control groups. HL diff = Hodges-Lehmann estimate of the median between-group difference in change (Intervention minus Control); negative values indicate a greater reduction in fatigue (i.e., greater improvement) in the intervention group.

4. There were no harms/adverse events associated with this study.