



Supplementary Materials: Absolute and Relative Strength, Power and Physiological Characteristics of Indian Junior National-Level Judokas

Dale M Harris *, Kristina Kendall, G. Gregory Haff and Christopher Latella

Groups	Age (y) ± SD	Bodyweight (kg) ± SD	Height (cm) ± SD
Gold-medal winners (GM) (n = 8; m = 3, f = 5)	Group = 16.4 ± 0.9 m = 16.3 ± 0.5 f = 16.4 ± 1.0	Group = 63.4 ± 10.1 m = 65.7 ± 1.9 f = 62.0 ± 12.5	Group = 161.0 ± 8.1 m = 170.3 ± 4.8 f = 155.4 ± 2.7
Gold, silver and bronze medal winners (MW) (n = 13; m = 6, f = 7)	Group = 16.5 ± 1.4 m = 17.0 ± 0.8 f = 16.1 ± 1.6	Group = 63.2 ± 9.4 m = 67.5 ± 2.4 f = 59.6 ± 11.3	Group = 162.8 ± 9.9 m = 172.5 ± 5.1 f = 154.4 ± 3.2
Non-medallists (NM) (n = 12; m = 9, f = 3)	Group = 16.6 ± 1.7 m = 16.7 ± 1.3 f = 16.3 ± 1.9	Group = 70.7 ± 9.9 m = 73.6 ± 5.3 f = 62.0 ± 12.7	Group = 168.2 ± 10.6 m = 172.8 ± 4.9 f = 154.3 ± 58.4
Silver and bronze medallists, and non-medallists (AO) ($n = 17$; $m = 12$, $f = 5$)	Group = 16.6 ± 1.8 m = 16.9 ± 1.3 f = 16.0 ± 2.5	Group = 68.4 ± 10.0 m = 72.5 ± 5.0 f = 58.6 ± 12.0	Group = 167.4 ± 11.1 m = 173.3 ± 4.8 f = 153.4 ± 9.0
Males (all) (<i>n</i> =15)	16.8 ± 1.2	71.1 ± 5.3	170.7 ± 5.0
Females (all) (<i>n</i> =10)	16.2 ± 1.9	60.3 ± 12.4	154.4 ± 6.7

Table S1. Participant demographics for each group. All values are presented as mean ± standard deviation. f, female; m, male.

Test	Mear	Mean ± SD		D 1	
	GM (n=8)	AO (n=17)	- % diff	P-value	Hedge's g (95% CI)
Handgrip strength (kg)	55.9 ± 2.9	56.4 ± 5.3	-0.7	0.838	0.09 (-0.93, 0.75)
Handgrip strength (kg/BW)	0.9 ± 0.1	0.8 ± 0.1	1.0	0.852	0.08 (-0.76, 0.92)
1-RM bench press (kg)	74.4 ± 16.8	71.2 ± 16.6	4.5	0.669	0.18 (-0.66, 1.02)
1-RM bench press (kg/BW)	1.14 ± 0.34	1.06 ± 0.25	6.8	0.550	0.28 (-0.57, 1.12)
1-RM back squat (kg)	116.1 ± 16.8	96.8 ± 23.2	20.0	0.046*	0.87 (-0.01, 1.74)
1-RM back squat (kg/BW)	1.75 ± 0.28	1.45 ± 0.36	21.0	0.047*	0.87 (-0.01, 1.74)
Aerobic power (mlkg min ^{-1})	37.4 ± 4.1	40.6 ± 6.8	-7.9	0.233	-0.51 (-1.36, 0.34)
Anaerobic power (W)	784.5 ± 49.7	625.8 ± 135.5	25.4	0.004*	1.32 (0.40, 2.24)
Anaerobic power (W/kg)	11.9 ± 1.7	9.3 ± 2.0	27.3	0.005*	1.27 (0.36, 2.18)
5-0-5 left (s)	1.5 ± 0.4	1.6 ± 0.3	-8.6	0.302	0.37 (-0.48, 1.22)
5-0-5 right (s)	1.4 ± 0.2	1.5 ± 0.3	-9.1	0.226	0.59 (-0.26, 1.45)
30m flying sprint (s)	3.9 ± 0.3	4.4 ± 0.8	-11.9	0.097	0.96 (0.08, 1.85)
CMJ power (W)	3049.6 ± 556.1	3016.1 ± 689.6	1.1	0.922	0.05 (-0.79, 0.89)

Table S2. Mean and standard deviation (SD), percentage (%) difference and *p*-values for gold-medal winners (GM) compared to podium finishers and non-medallists (AO). * indicates significant difference (p < 0.05). CMJ, countermovement jump; 1-RM, one repetition maximum; BW, bodyweight; W, watts.

Test	Mean ± SD				
	MW (n=13)	NM (n=12)	% diff	P-value	Hedge's g (95% CI)
Handgrip strength (kg)	57.6 ± 3.9	54.8 ± 5.0	5.2	0.126	0.61 (-0.19, 1.42)
Handgrip strength (kg/BW)	0.9 ± 0.1	0.8 ± 0.1	3.7	0.467	0.30 (-0.49, 1.09)
1-RM bench press (kg)	76.2 ± 16.5	67.9 ± 15.9	12.1	0.217	0.50 (-0.36, 1.35)
1-RM bench press (kg/BW)	1.1 ± 0.3	1.0 ± 0.2	10.9	0.316	0.42 (-0.43, 1.27)
1-RM back squat (kg)	110.7 ± 19.7	94.6 ± 24.0	17.0	0.079	0.68 (-0.18, 1.55)
1-RM back squat (kg/BW)	1.7 ± 0.4	1.4 ± 0.3	16.2	0.111	0.66 (-0.20, 1.52)
Aerobic power (ml·kg·min ⁻¹)	38.3 ± 6.1	40.9 ± 6.3	-6.4	0.302	-0.41 (-1.25, 0.44)
Anaerobic power (W)	729.7 ± 142.3	619.1 ± 108.2	17.9	0.091	0.89 (0.02, 1.77)
Anaerobic power (W/kg)	10.9 ± 2.5	9.4 ± 1.7	16.3	0.091	0.75 (-0.12, 1.61)
5-0-5 left (s)	1.5 ± 0.3	1.6 ± 0.3	-3.6	0.645	0.17 (-0.66, 1.01)
5-0-5 right (s)	1.5 ± 0.3	1.6 ± 0.3	-1.8	0.816	0.09 (-0.78, 0.93)
30m flying sprint (s)	4.1 ± 0.6	4.4 ± 0.8	-6.7	0.324	-0.37 (-1.22, 0.48)
CMJ power (W)	3082.2 ± 613.6	2966.9 ± 686.2	3.9	0.634	0.17 (-0.61, 0.96)

Table S3. Mean and standard deviation (SD), percentage (%) difference and *p*-values for medal-winners (MW) compared to non-medallists (NM). * indicates significant difference (p < 0.05). CMJ, countermovement jump; 1-RM, one repetition maximum; BW, bodyweight; W, watts.