D. Kidd

E. M. Winter

ANNOTATION

SOME ANTHROPOMETRIC CHARACTERISTICS OF THE NATIONAL JUNIOR HAMMER SQUAD

D. KIDD, BSc, MSc and E. M. WINTER, BEd, MSc

Bedford College of Higher Education

A group of five elite young hammer throwers were measured for height, weight, somatotype and body composition. This small group comprised all the potential champions in the UK, selected by the governing body's National Event Coach.

METHODS

Somatotype and percentage body fat were assessed according to the methods of Heath and Carter (1967) and Durnin and Womersley (1974), respectively.

RESULTS

The results are tabulated and those of Morrow et al (1982) are presented for comparison:

Although the mean values indicate the younger British squad to be slightly taller, lighter and fatter, their ranges, in fact, span the mean American values for each parameter. The throwers, with a mean 16.0% body fat, are the same order of fatness as non-athletic males, reported by Fox and Mathews (1981) to be 16.8%, although Parizkova (1977) found a mean value of 12% for the 20-30 year-old age range. The hammer throwers are slightly fatter than the elite discus throwers and shot putters measured by Morrow et al (1982), and considerably fatter than javelin throwers, (8.5%, Morrow et al, 1982) and track athletes (6.3-7.5%, Fox and Mathews, 1981). Winter and Hamley (1976) found a value of $7.4\% \pm 2.5$ for middle and long distance runners.

	Young British Hammer Throwers (Kidd & Winter) n = 5			American Hammer Throwers (Morrow et al) n = 9	
	Mean	S.D.	Range	Mean	S.D.
Age (yrs)	19.0	1.7	17.2-20.8	24.8	3.2
Height (m)	1.897	0.019	1.865-1.914	1.873	0.031
Weight (kg)	103.0	8.4	92.5-114.8	104.2	9.1
Fat (%)	16.0	1.1	14.1-16.7	15.1	4.2
Somatotype					
Endomorphy	3.1	0.4	2.5-3.5		
Mesomorphy	6.0	1.0	5.0-7.0		
Ectomorphy	1.2	0.8	0.5-2.5		

The somatotypes found indicate a high level of mesomorphy and confirm previous findings by Tanner (1964) among others, that throwers, like weightlifters and wrestlers, are endomorphic mesomorphs, unlike track athletes and most other top-class sportsmen, who are ectomorphic mesomorphs.

Somatotype distribution of the National Junior Hammer Squad.

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