

The Prevalence and Predictive Risk Factors of Metabolic Syndrome Based on Health-Related Fitness Components in Omani Adolescents with Obesity

Table S1: The difference between the frequency of each MetS criteria in boys (N=76) and girls group (N=54)

Gender	Component	Range	Boys		Girls	
			No.	%	No.	%
waist circumference		≥ 90 cm	78	100	-	-
		≥ 80 cm	-	-	57	100
Blood pressure (mmHg)	Systolic	High ≥130	55	70.5	36	63.2
		Normal < 130	23	29.5	21	36.8
	Diastolic	High ≥ 85	54	69.3%	36	63.2
		Normal < 85	24	30.7	21	36.8
FBG (mmol/L)		High ≥ 5.6	35	44.9	34	59.7
		Normal < 5.6	43	55.1	23	40.3

Table S2: The calculated Metabolic syndrome frequency in in boys (N=76) and girls group (N=54) and whole population (N=135)

Group			Metabolic syndrome components			
			Normal	High BP and high FBG	High FBG	High BP
Gender	Girl	Count	14	30	8	10
	Boy	Count	17	25	8	23
Total		Count	31	55	16	33
		% of Total	23.0%	40.7%	11.8%	24.5%

Table S3: Demographic Characteristics of studied adolescents based on gender (Mean ± SD)

Variable	Independent sample t-test				
	Gender	N	Mean	SD	Sig. (2-tailed)
Age (years)	Girl	57	15.13	0.95	0.0001*
	Boy	78	14.41	0.99	
	Total	135	14.71	1.03	
Height (cm)	Girl	57	157.57	5.53	0.0001*
	Boy	78	164.55	7.96	
	Total	135	161.60	7.82	
Weight (kg)	Girl	57	82.09	16.93	0.09
	Boy	78	86.89	15.50	
	Total	135	84.86	16.23	
BMI (kg/m ²)	Girl	57	33.01	5.91	0.239
	Boy	78	31.96	4.37	
	Total	135	32.40	5.08	
BMI%eil	Girl	57	98.11	1.28	0.128
	Boy	78	97.75	1.41	
	Total	135	97.90	1.37	
WC (cm)	Girl	57	90.72	8.54	0.0001*
	Boy	78	97.58	6.04	

	Total	135	94.69	7.94	
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Table S4: classification for flexibility (Sit and reach test) aged 13 to 16

Ages	Classification	Range (cm)	No.	%
Boys 11-15	Poor	<8.8	2	2.6
	Moderate	8.8-21.7	50	65.8
	Good	21.7-29.5	19	25.0
	Excellent	29.5-36.4	5	6.6
Girls 11-15	Poor	<18.9	13	24.1
	Moderate	18.9-28.9	31	57.4
	Good	28.9-35.3	10	18.5
	Excellent	35.3-42	0	0.0

Table S5: Classification for CRF (Shuttle run 20m test) aged 13 to 16

Ages	Grade	Range VO _{2max} (ml/kg/min)	No.	%
Boys 13-19	Very Poor	< 35	30	39.5
	Poor	35 – 38.3	27	35
	Fair	38.4 –45.1	18	24
	Good	45.2 – 50.9	3	1.5
	Excellent	51 – 55.9	0	0
	Superior	> 55.9	0	0
Girls 13-19	Very Poor	< 25	1	1.5
	Poor	25 – 30.9	31	54.7
	Fair	31 – 34.9	19	33.3
	Good	35 – 38.9	6	10.5
	Excellent	39 – 41.9	0	0
	Superior	> 41.9	0	0

Table S6: Classification for muscle strength (Handgrip test) aged 13 to 16 years

Ages			Range (kg)	No.	% in total population	% in sex-age group
Boys	12 – 13	Weak	< 19.4	0	0	0
		Normal	19.4 – 31.2	13	17	54
		Strong	> 31.2	12	15	46
	14 – 15	Weak	< 28.5	7	9.5	14
		Normal	28.5 – 44.3	45	58	85
		Strong	> 44.3	1	1.5	1
	16 - 17	Weak	< 32.6	-	-	
		Normal	32.6 – 52.4	-	-	
		Strong	> 52.4	-	-	
Girls	12 – 13	Weak	< 14.6	0	0	0
		Normal	14.6 – 24.4	6	9.5	71.5
		Strong	> 24.4	2	3.5	28.5
	14 - 15	Weak	< 15.5	5	9.5	12
		Normal	15.5 – 27.3	31	55.5	73
		Strong	> 27.3	6	11	15
	16 - 17	Weak	< 17.2	2	3.5	33.3
		Normal	17.2 – 29	3	5.5	50
		Strong	> 29	2	2	16.7