

SUPPLEMENTARY MATERIAL

Title: Associations of overweight and obesity indicators with cardiometabolic risk profile in children and adolescents with congenital heart disease

Authors: Michele Honicky^{1,2}, Silvia M. Cardoso^{3,4}, Luiz R. A. de Lima⁵, Francilene G. K. Vieira^{2,6}, Isabela de C. Back³, Yara M. F. Moreno^{2,6}

¹ Nutrition Institute, State University of Rio de Janeiro, Rio de Janeiro, Brazil

²Postgraduate Program in Nutrition, Federal University of Santa Catarina, Health Sciences Center, University Campus, Trindade, Florianópolis, SC, CEP: 88040-900, Brazil.

³Postgraduate Program in Public Health, Federal University of Santa Catarina, Health Sciences Center, University Campus, Trindade, Florianópolis, SC, CEP: 88040-900, Brazil.

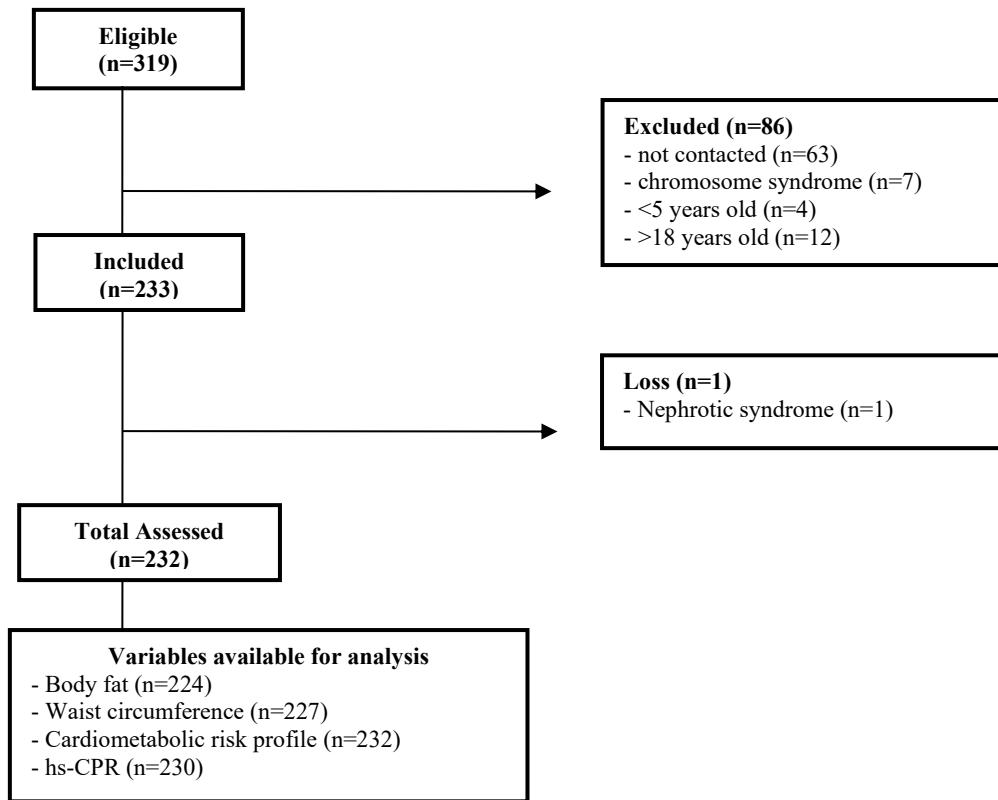
⁴Pediatric Cardiologist at Professor Polydoro Ernani São Thiago University Hospital, Federal University of Santa Catarina, Florianópolis, Santa Catarina, Brazil.

⁵Department of Physical Education and Sports, Federal University of Alagoas. Maceió, Brazil.

⁶Department of Nutrition, Federal University of Santa Catarina, Health Sciences Center, University Campus, Trindade, Florianópolis, SC, CEP: 88040-900, Brazil

Author for correspondence

Yara Maria Franco Moreno, PhD Federal University of Santa Catarina, Center for Health Sciences, University Campus, Trindade, Florianópolis, SC, CEP: 88040-900, Brazil. Email: yara.moreno@ufsc.br Phone number +55 48 37212215



Supplementary Figure S1. Flowchart of patients included in the study (January - July 2017).

Supplementary table S1. Classifications of cardiometabolic risk profile according to the %BF and WC-p in children and adolescents with CHD.

Variables	Total n (%)	%BF			WC-p		
		Normal	Overweight	P	Normal	Overweight	P
		weight n (%)	or obese n (%)		weight n (%)	or obese n (%)	
HDL-c							
Desirable	155 (66.8)	121 (70.3)	30 (57.7)	0,11	113 (66.7)	38 (66.7)	0.05
Borderline	54 (23.3)	37 (21.5)	13 (25.0)		44 (25.9)	9 (15.8)	
Low	23 (9.9)	14 (8.1)	9 (17.3)		13 (7.6)	10 (17.5)	
Total cholesterol							
Desirable	184 (79.3)	136 (79.1)	41 (78.8)	0.64 ^a	137 (80.6)	44 (77.2)	0.25 ^a
Borderline	43(18.5)	33 (19.2)	9 (17.3)		32 (18.8)	10 (17.5)	
High	5 (2.2)	3 (1.7)	2 (3.8)		1 (0.6)	3 (5.3)	
Non-HDL-c							
Desirable	174 (75)	131 (76.2)	37 (71.2)	0.74	133 (78.2)	39 (68.4)	0.04
Borderline	36 (15.5)	26 (15.1)	9 (17.3)		26 (15.3)	8 (14.0)	
High	22 (9.5)	15 (8.7)	6 (11.5)		11 (6.5)	10 (17.5)	
LDL-c							
Desirable	185 (79.7)	138 (80.2)	40 (76.9)	0.81 ^a	140 (82.4)	42 (73.7)	0.28
Borderline	31 (13.4)	22 (12.8)	8 (15.4)		21 (12.4)	9 (15.8)	
High	16 (6.9)	12 (7.0)	4 (7.7)		9 (5.3)	6 (10.5)	
Fasting glucose							
Desirable	201 (86.6)	153 (89.0)	42 (80.8)	0.12	147 (86.5)	49 (86.0)	0.92
Borderline	31 (13.4)	19 (11.0)	10 (19.2)		23 (13.5)	8 (14.0)	
Triglycerides							
Desirable	179 (77.2)	140 (81.4)	36 (69.2)	0.11	137 (80.6)	40 (70.2)	0.13
Borderline	38 (16.4)	24 (14.0)	10 (19.2)		26 (15.3)	11 (19.3)	
High	15 (6.5)	8 (4.7)	6 (11.3)		7 (4.1)	6 (10.5)	
hs-CPR^b							
Low risk	82 (35.7)	73 (42.7)	7 (13.7)	<0.001	67 (39.6)	13 (23.2)	0.01
Moderate risk	119 (51.7)	84 (49.1)	29 (56.9)		87 (51.5)	30 (53.6)	
High risk	29 (12.6)	14 (8.2)	15 (29.4)		15 (8.9)	13 (23.2)	
SBP							
Desirable	227 (97.8)	170 (98.8)	49 (94.2)	0.10 ^a	167 (98.2)	56 (98.2)	0.82 ^a
Borderline	3 (1.3)	1 (0.6)	2 (3.8)		2 (1.2)	1 (1.8)	
High	2 (0.9)	1 (0.6)	1 (1.9)		1 (0.6)	0 (0.0)	
DBP							
Desirable	227 (97.8)	171 (99.4)	48 (92.3)	0.001^a	168 (98.8)	54 (94.7)	0.12 ^a
Borderline	3 (1.3)	1 (0.6)	2 (3.8)		1 (0.6)	2 (3.5)	
High	2 (0.9)	0 (0)	2 (3.8)		1 (0.6)	1 (1.8)	

hs-CRP=high-sensitivity C-reactive protein; HDL-c=high-density lipoprotein cholesterol; LDL-c=low-density lipoprotein cholesterol; SBP=systolic blood pressure; DBP=diastolic blood pressure.

Reference values: HDL-c: desirable (>45 mg/dL) borderline (40-45 mg/dL) low (<40 mg/dL); Total cholesterol: desirable (<170 mg/dL) borderline (170-199 mg/dL) high (≥200 mg/dL); Non-HDL-c: desirable (<120 mg/dL) borderline (120-144 mg/dL) high (≥145 mg/dL); LDL-c: desirable (<120 mg/dL) borderline (110-129 mg/dL) high (≥145 mg/dL) Fasting glucose: desirable (<100 mg/dL) borderline (≥126 mg/dL) triglycerides: desirable (<75/<90 mg/dL) borderline (75-99/90-129 mg/dL) high (≥110/≥130 mg/dL); hs-CRP: low risk (<1 mg/L) moderate risk (1 to 3 mg/L) high risk (>3 mg/L); systolic and diastolic blood pressure: desirable (<90th percentile) borderline (≥90th -95th percentile) high (≥95th percentile).

p value=chi-square test. ^a p-value=Fischer's test. ^b 2 patients did not take the test.