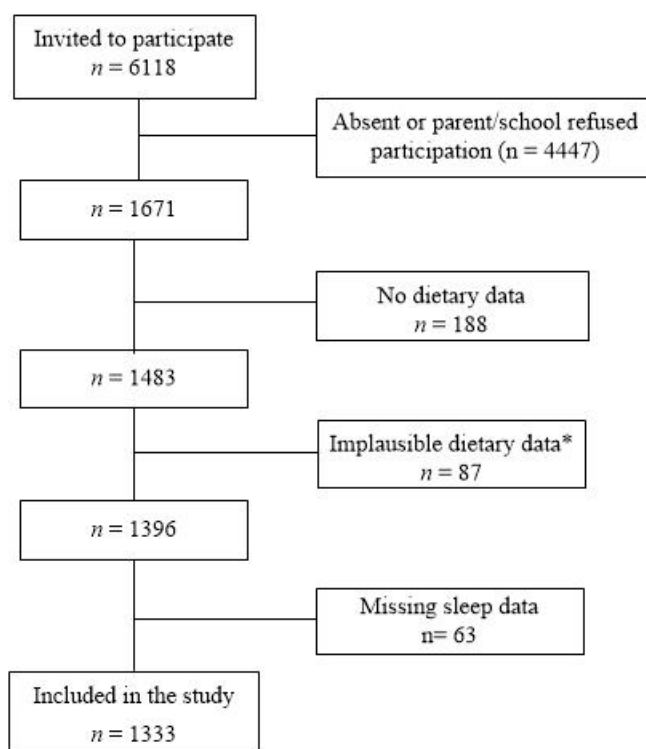


Figure S1. Flow chart of the study design



*Children and adolescents who reported less than three food items per day or consumption of a number of items greater than the mean + 3 standard deviations.

Table S1. Description of sleep variables according to the midpoint of sleep. Florianopolis, Brazil, 2018/2019.

Sleep variables	Early n=460	Intermediate n=434	Late n=439
	median (p25; p75)	median (p25; p75)	median (p25; p75)
Sleep duration (h)			
Total	9.64 (9.08; 10.29)^a	9.64 (9.11; 10.43)^c	10.14 (9.29; 11.00)^{a,c}
Weekday	9.50 (8.75; 10.00)^a	9.50 (8.50; 10.50)^c	10.00 (9.00; 11.00)^{a,c}
Weekend	10.00 (9.50; 11.00)	10.50 (10.00; 11.00)	10.50 (9.50; 11.00)
Bedtime (local time)			
Weekday	21:30 (21:00; 22:00)^{a,b}	22:00 (21:40; 22:35)^{b,c}	23:00 (22:00; 23:30)^{a,c}
Weekend	22:00 (22:00; 22:30)^{a,b}	23:00 (23:00; 23:30)^{b,c}	0:00 (23:35; 1:00)^{a,c}
Wake-up time (local time)			
Weekday	6:40 (6:30; 7:00)^{a,b}	7:00 (6:30; 8:30)^{b,c}	9:00 (7:00; 10:00)^{a,c}
Weekend	8:00 (8:00; 9:00)^{a,b}	9:30 (9:00; 10:00)^{b,c}	10:30 (10:00; 11:00)^{a,c}
MSFsc	3:01 (2:38; 3:17)^{a,b}	3:35 (3:26; 4:11)^{b,c}	5:05 (4:38; 5:41)^{a,c}

Bold font and superscripts indicate: Kruskal-Wallis test, **a** that the first and third tertile are significantly different at 5% level; **b** that the first and second tertile are significantly different at 5% level; **c** that the second and third tertiles are significantly different at 5% level.

Table S2. Associations between the midpoint of sleep and mid-afternoon snack, lunch, and dinner. Florianopolis, Brazil, 2018/2019.

	Lunch				Mid-afternoon snack				Dinner			
	Crude OR (95% CI)	p	Adjusted ^a OR (95% CI)	p	Crude OR (95% CI)	p	Adjusted ^a OR (95% CI)	p	Crude OR (95% CI)	p	Adjusted ^a OR (95% CI)	p
Early	1.21(0.70;2.09)	0.451	1.18(0.60;2.33)	0.590	0.54(0.25;1.17)	0.104	0.50(0.22;1.15)	0.093	0.91(0.59;1.43)	0.656	0.95(0.54;1.67)	0.838
Intermediate	1	-	1	-	1	-	1	-	1	-	1	-
Late	2.24(0.56;9.06)	0.223	2.68(0.57;12.67)	0.184	0.57(0.33;1.00)	0.050	0.47(0.20;1.09)	0.074	1.02(0.67;1.56)	0.912	1.25(0.89;1.76)	0.167
Gender												
Male	1	-	1	-	1	-	1	-	1	-	1	-
Female	0.94(0.43;2.08)	0.869	0.95(0.45;2.04)	0.890	1.74(1.17;2.58)	0.011	1.57(1.00;2.45)	0.049	0.78(0.43;1.41)	0.368	0.84(0.41;1.72)	0.593
Age												
7-10 years	1	-	1	-	1	-	1	-	1	-	1	-
11-14 years	1.71(0.64;4.52)	0.245	2.00(0.81;4.98)	0.119	0.92(0.51;1.67)	0.761	1.02(0.59;1.78)	0.931	1.36(0.61;3.00)	0.406	1.35(0.64;2.83)	0.386
Screen use												
never	1	-	1	-	1	-	1	-	1	-	1	-
once	1.20(0.22;6.60)	0.810	0.96(0.22;4.30)	0.958	1.19(0.72;1.96)	0.451	1.10(0.58;2.10)	0.746	0.91(0.61;1.37)	0.627	0.84(0.48;1.48)	0.509
twice	1.02(0.15;6.97)	0.980	1.02(0.13;8.11)	0.987	1.04(0.45;2.43)	0.911	1.02(0.42;2.46)	0.970	0.61(0.29;1.28)	0.168	0.62(0.35;1.11)	0.098
three times or more	0.56(0.16;1.93)	0.319	0.43(0.14;1.36)	0.131	1.18(0.69;2.01)	0.506	1.19(0.70;2.04)	0.469	1.45(0.82;2.58)	0.175	1.30(0.69;2.45)	0.370
Physical activity												
0-2 times	1	-	1	-	1	-	1	-	1	-	1	-
3-4 times	1.17(0.38;3.57)	0.760	1.22(0.38;3.90)	0.713	1.04(0.62;1.73)	0.880	0.96(0.62;1.49)	0.834	1.60(0.94;2.71)	0.076	1.43(0.74;2.76)	0.247
≥5 times	6.30(0.60;66.39)	0.111	7.48(0.57;97.85)	0.110	1.74(1.06;2.87)	0.033	1.56(1.10;2.21)	0.018	5.35(1.35;21.26)	0.022	4.78(1.25;18.20)	0.027
Type of school												
Public	1	-	1	-	1	-	1	-	1	-	1	-
Private	2.44(1.22;4.89)	0.018	2.18(0.77;6.17)	0.123	1.23(0.95;1.59)	0.107	1.33(0.82;2.16)	0.213	1.61(0.95;2.74)	0.073	1.23(0.57;2.82)	0.586
Maternal education, years of schooling												
0-8	1	-	1	-	1	-	1	-	1	-	1	-
9-11	2.37(1.03;5.43)	0.043	2.19(1.07;4.50)	0.036	1.85(0.85;4.04)	0.107	1.62(0.88;2.96)	0.107	0.70(0.48;1.01)	0.054	0.66(0.52;0.84)	0.004
≥12	3.50(1.37;8.90)	0.014	2.40(0.52;11.22)	0.230	1.23(0.78;1.92)	0.329	0.86(0.39;1.90)	0.669	1.25(0.79;1.98)	0.297	1.04(0.54;2.01)	0.901
Day of the food intake report												
Weekend	1	-	1	-	1	-	1	-	1	-	1	-
Weekday	0.48(0.09;2.59)	0.347	0.25(0.04;1.43)	0.106	1.98(0.95;4.13)	0.063	2.02(0.99;4.13)	0.053	1.28(0.68;2.38)	0.399	0.92(0.42;2.02)	0.824
Weight status												
Non-overweight	1	-	1	-	1	-	1	-	1	-	1	-
Overweight	0.85(0.41;1.73)	0.609	0.96(0.47;1.97)	0.907	0.44(0.30;0.68)	0.002	0.44(0.28;0.69)	0.003	0.84(0.36;1.91)	0.635	0.87(0.35;2.15)	0.731
Total sleep duration (h)	0.85 (0.47;1.57)	0.572	0.86(0.48;1.52)	0.560	1.20(0.95;1.53)	0.113	1.27(1.01;1.59)	0.039	0.84 (0.56;1.26)	0.361	0.88(0.61;1.27)	0.456

^aAdjusted by gender, age, screen use, physical activity, type of school, weight status, maternal education, day of food intake report, and total sleep duration.
Bold values denote statistical significance at the $p < 0.05$ level.