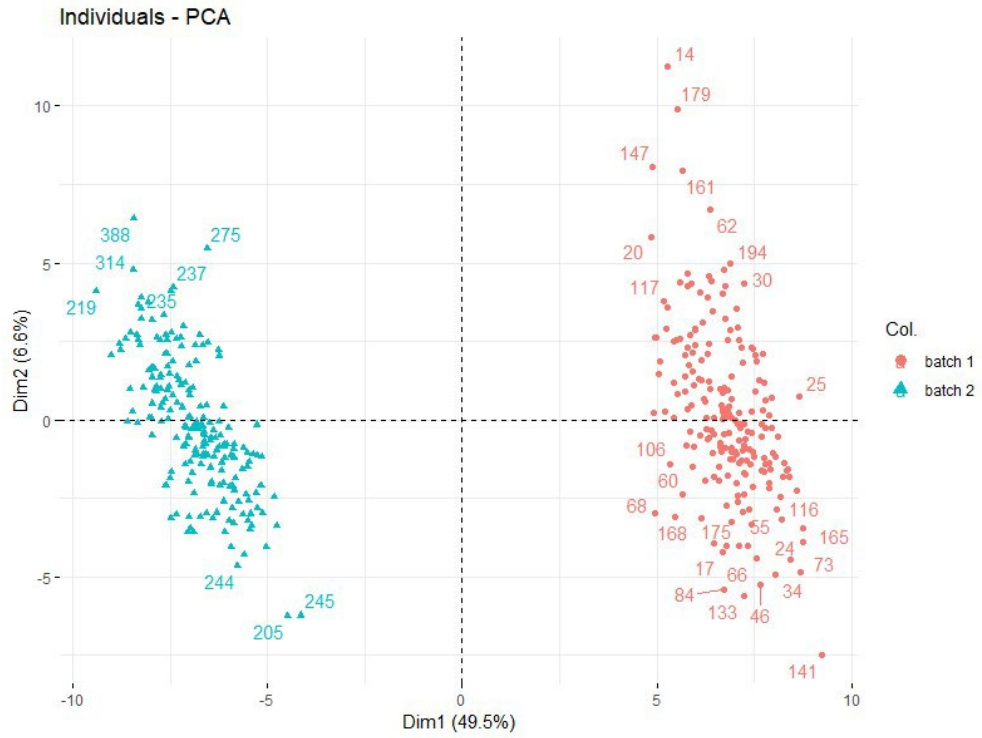


Supplement

Metabolomic profiles in Jamaican children with and without autism spectrum disorder

Figure S1. Batch effect correction.

A. Data representation using first two principal components before the correction.



B. Data representation using first two principal components after the correction.

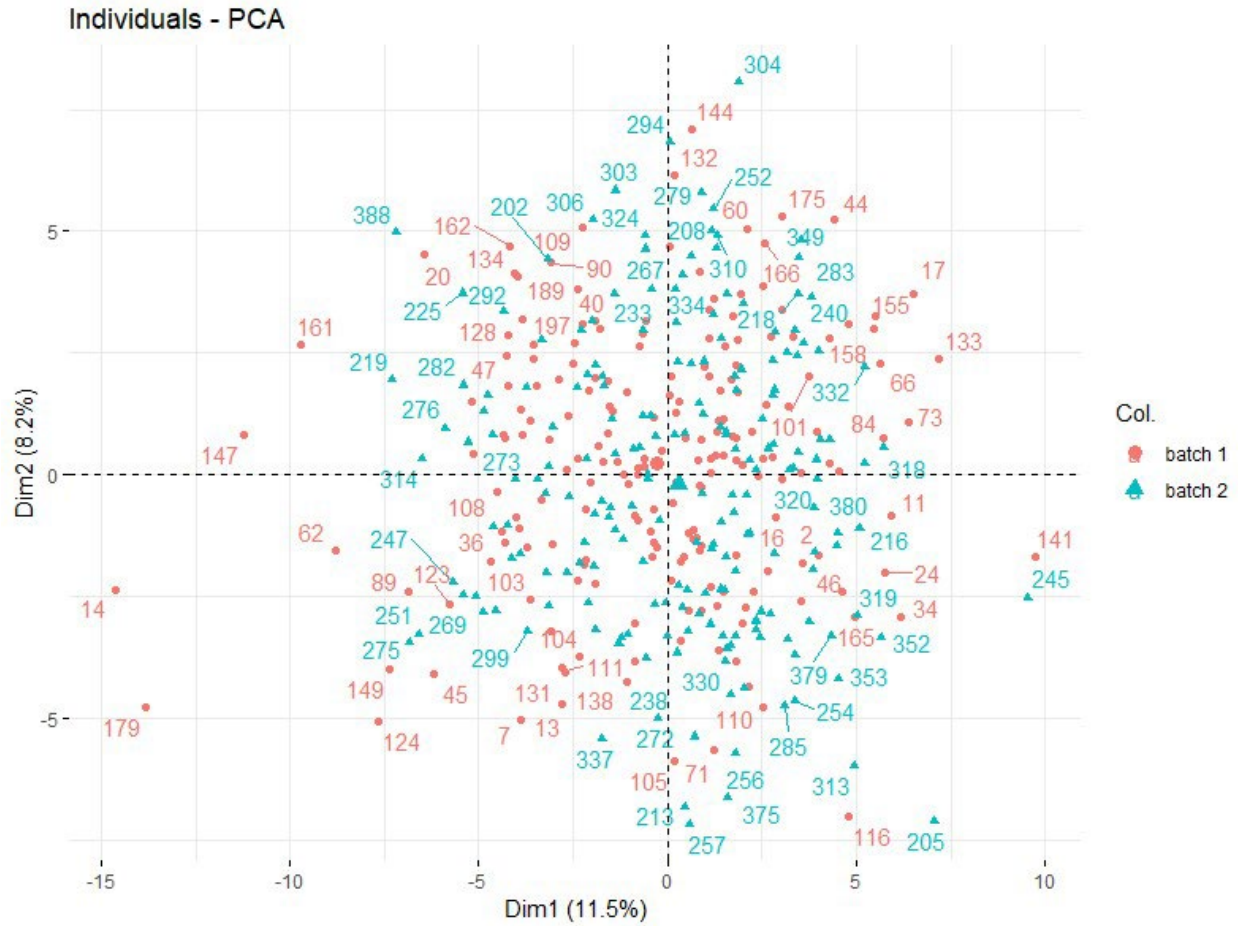


Table S1. By performing the Chi-square test or Fisher's exact test (*), we investigated the potential distinctions in dietary patterns between ASD and TD control groups based on food consumption scores obtained from questionnaires.

	TD control group (N=200)	ASD group (N=200)	Total (N=400)	p-value
Sea fish				0.004
Consumed	133 (66.5%)	105 (52.5%)	238 (59.5%)	
Not Consumed	67 (33.5%)	95 (47.5%)	162 (40.5%)	
Fresh water				0.182
Consumed	49 (24.5%)	38 (19.0%)	87 (21.8%)	
Not Consumed	151 (75.5%)	162 (81.0%)	313 (78.2%)	
Sardine				< 0.001
Consumed	170 (85.0%)	139 (69.5%)	309 (77.2%)	
Not Consumed	30 (15.0%)	61 (30.5%)	91 (22.8%)	
Tuna				0.196
Consumed	69 (34.5%)	57 (28.5%)	126 (31.5%)	
Not Consumed	131 (65.5%)	143 (71.5%)	274 (68.5%)	
Saltfish				< 0.001
Consumed	158 (79.0%)	113 (56.5%)	271 (67.8%)	
Not Consumed	42 (21.0%)	87 (43.5%)	129 (32.2%)	
Shell fish lobster				< 0.001
Consumed	33 (16.5%)	6 (3.0%)	39 (9.8%)	
Not Consumed	167 (83.5%)	194 (97.0%)	361 (90.2%)	
Shrimp				< 0.001
Consumed	33 (16.5%)	6 (3.0%)	39 (9.8%)	
Not Consumed	167 (83.5%)	194 (97.0%)	361 (90.2%)	
Packaged fish				0.388
Consumed	38 (19.0%)	45 (22.5%)	83 (20.8%)	
Not Consumed	162 (81.0%)	155 (77.5%)	317 (79.2%)	
Beef				0.085
Consumed	92 (46.0%)	75 (37.5%)	167 (41.8%)	
Not Consumed	108 (54.0%)	125 (62.5%)	233 (58.2%)	
Lamb mutton				0.110
Consumed	33 (16.5%)	22 (11.0%)	55 (13.8%)	
Not Consumed	167 (83.5%)	178 (89.0%)	345 (86.2%)	
Goat				< 0.001
Consumed	101 (50.5%)	68 (34.0%)	169 (42.2%)	

	TD control group (N=200)	ASD group (N=200)	Total (N=400)	p-value
Not Consumed	99 (49.5%)	132 (66.0%)	231 (57.8%)	
Pork				< 0.001
Consumed	112 (56.0%)	79 (39.5%)	191 (47.8%)	
Not Consumed	88 (44.0%)	121 (60.5%)	209 (52.2%)	
Liver				0.009
Consumed	117 (58.5%)	91 (45.5%)	208 (52.0%)	
Not Consumed	83 (41.5%)	109 (54.5%)	192 (48.0%)	
Chicken				0.006*
Consumed	196 (98.0%)	184 (92.0%)	380 (95.0%)	
Not Consumed	4 (2.0%)	16 (8.0%)	20 (5.0%)	
Milk				0.229
Consumed	98 (49.0%)	86 (43.0%)	184 (46.0%)	
Not Consumed	102 (51.0%)	114 (57.0%)	216 (54.0%)	
Cheese				< 0.001
Consumed	165 (82.5%)	134 (67.0%)	299 (74.8%)	
Not Consumed	35 (17.5%)	66 (33.0%)	101 (25.2%)	
Yogurt				0.004
Consumed	68 (34.0%)	42 (21.0%)	110 (27.5%)	
Not Consumed	132 (66.0%)	158 (79.0%)	290 (72.5%)	
Eggs				< 0.001
Consumed	172 (86.0%)	144 (72.0%)	316 (79.0%)	
Not Consumed	28 (14.0%)	56 (28.0%)	84 (21.0%)	
Rice				< 0.001*
Consumed	199 (99.5%)	178 (89.0%)	377 (94.2%)	
Not Consumed	1 (0.5%)	22 (11.0%)	23 (5.8%)	
Fried dumpling				0.140
Consumed	154 (77.0%)	141 (70.5%)	295 (73.8%)	
Not Consumed	46 (23.0%)	59 (29.5%)	105 (26.2%)	
Boiled dumpling				< 0.001
Consumed	184 (92.0%)	154 (77.0%)	338 (84.5%)	
Not Consumed	16 (8.0%)	46 (23.0%)	62 (15.5%)	
White bread				< 0.001
Consumed	140 (70.0%)	103 (51.5%)	243 (60.8%)	
Not Consumed	60 (30.0%)	97 (48.5%)	157 (39.2%)	
Whole wheat bread				0.760
Consumed	121 (60.5%)	118 (59.0%)	239 (59.8%)	
Not Consumed	79 (39.5%)	82 (41.0%)	161 (40.2%)	

	TD control group (N=200)	ASD group (N=200)	Total (N=400)	p-value
Cakes bun				0.003
Consumed	164 (82.0%)	138 (69.0%)	302 (75.5%)	
Not Consumed	36 (18.0%)	62 (31.0%)	98 (24.5%)	
Porridge				0.003
Consumed	184 (92.0%)	164 (82.0%)	348 (87.0%)	
Not Consumed	16 (8.0%)	36 (18.0%)	52 (13.0%)	
Cold cereal				< 0.001
Consumed	157 (78.5%)	116 (58.0%)	273 (68.2%)	
Not Consumed	43 (21.5%)	84 (42.0%)	127 (31.8%)	
Macaroni				< 0.001
Consumed	179 (89.5%)	150 (75.0%)	329 (82.2%)	
Not Consumed	21 (10.5%)	50 (25.0%)	71 (17.8%)	
Peas				< 0.001
Consumed	146 (73.0%)	106 (53.0%)	252 (63.0%)	
Not Consumed	54 (27.0%)	94 (47.0%)	148 (37.0%)	
Beans				0.011
Consumed	94 (47.0%)	69 (34.5%)	163 (40.8%)	
Not Consumed	106 (53.0%)	131 (65.5%)	237 (59.2%)	
Nuts				< 0.001
Consumed	158 (79.0%)	95 (47.5%)	253 (63.2%)	
Not Consumed	42 (21.0%)	105 (52.5%)	147 (36.8%)	
Yam				0.008
Consumed	147 (73.5%)	122 (61.0%)	269 (67.2%)	
Not Consumed	53 (26.5%)	78 (39.0%)	131 (32.8%)	
Carrot				< 0.001
Consumed	174 (87.0%)	147 (73.5%)	321 (80.2%)	
Not Consumed	26 (13.0%)	53 (26.5%)	79 (19.8%)	
Lettuce				< 0.001
Consumed	107 (53.5%)	57 (28.5%)	164 (41.0%)	
Not Consumed	93 (46.5%)	143 (71.5%)	236 (59.0%)	
Callaloo				0.001
Consumed	153 (76.5%)	123 (61.5%)	276 (69.0%)	
Not Consumed	47 (23.5%)	77 (38.5%)	124 (31.0%)	
Cabbage				< 0.001
Consumed	148 (74.0%)	109 (54.5%)	257 (64.2%)	
Not Consumed	52 (26.0%)	91 (45.5%)	143 (35.8%)	
String beans				0.020

	TD control group (N=200)	ASD group (N=200)	Total (N=400)	p-value
Consumed	59 (29.5%)	39 (19.5%)	98 (24.5%)	
Not Consumed	141 (70.5%)	161 (80.5%)	302 (75.5%)	
Tomatoes				< 0.001
Consumed	142 (71.0%)	105 (52.5%)	247 (61.8%)	
Not Consumed	58 (29.0%)	95 (47.5%)	153 (38.2%)	
Ackee				< 0.001
Consumed	155 (77.5%)	94 (47.0%)	249 (62.2%)	
Not Consumed	45 (22.5%)	106 (53.0%)	151 (37.8%)	
Avocado				< 0.001
Consumed	106 (53.0%)	42 (21.0%)	148 (37.0%)	
Not Consumed	94 (47.0%)	158 (79.0%)	252 (63.0%)	
Green banana				< 0.001
Consumed	155 (77.5%)	123 (61.5%)	278 (69.5%)	
Not Consumed	45 (22.5%)	77 (38.5%)	122 (30.5%)	
Fried plantain				< 0.001
Consumed	173 (86.5%)	142 (71.0%)	315 (78.8%)	
Not Consumed	27 (13.5%)	58 (29.0%)	85 (21.2%)	
Ripe banana				< 0.001
Consumed	189 (94.5%)	162 (81.0%)	351 (87.8%)	
Not Consumed	11 (5.5%)	38 (19.0%)	49 (12.2%)	
Oranges				< 0.001
Consumed	181 (90.5%)	134 (67.0%)	315 (78.8%)	
Not Consumed	19 (9.5%)	66 (33.0%)	85 (21.2%)	
Tangerine				< 0.001
Consumed	95 (47.5%)	52 (26.0%)	147 (36.8%)	
Not Consumed	105 (52.5%)	148 (74.0%)	253 (63.2%)	
Grapes				< 0.001
Consumed	123 (61.5%)	79 (39.5%)	202 (50.5%)	
Not Consumed	77 (38.5%)	121 (60.5%)	198 (49.5%)	
Otaheite apples				< 0.001
Consumed	169 (84.5%)	128 (64.0%)	297 (74.2%)	
Not Consumed	31 (15.5%)	72 (36.0%)	103 (25.8%)	
Pineapples				< 0.001
Consumed	143 (71.5%)	90 (45.0%)	233 (58.2%)	
Not Consumed	57 (28.5%)	110 (55.0%)	167 (41.8%)	
American apples				0.002
Consumed	78 (39.0%)	49 (24.5%)	127 (31.8%)	

	TD control group (N=200)	ASD group (N=200)	Total (N=400)	p-value
Not Consumed	122 (61.0%)	151 (75.5%)	273 (68.2%)	
Guinep				0.041
Consumed	12 (6.0%)	4 (2.0%)	16 (4.0%)	
Not Consumed	188 (94.0%)	196 (98.0%)	384 (96.0%)	
Peach				0.041*
Consumed	12 (6.0%)	4 (2.0%)	16 (4.0%)	
Not Consumed	188 (94.0%)	196 (98.0%)	384 (96.0%)	
Plums				< 0.001
Consumed	98 (49.0%)	24 (12.0%)	122 (30.5%)	
Not Consumed	102 (51.0%)	176 (88.0%)	278 (69.5%)	
Strawberry				0.388
Consumed	21 (10.5%)	16 (8.0%)	37 (9.2%)	
Not Consumed	179 (89.5%)	184 (92.0%)	363 (90.8%)	
Naseberry				0.004
Consumed	70 (35.0%)	44 (22.0%)	114 (28.5%)	
Not Consumed	130 (65.0%)	156 (78.0%)	286 (71.5%)	
Sweetsop				< 0.001
Consumed	69 (34.5%)	23 (11.5%)	92 (23.0%)	
Not Consumed	131 (65.5%)	177 (88.5%)	308 (77.0%)	
Mango				< 0.001
Consumed	186 (93.0%)	148 (74.0%)	334 (83.5%)	
Not Consumed	14 (7.0%)	52 (26.0%)	66 (16.5%)	
June plum				< 0.001
Consumed	142 (71.0%)	74 (37.0%)	216 (54.0%)	
Not Consumed	58 (29.0%)	126 (63.0%)	184 (46.0%)	
Juices				< 0.001
Consumed	186 (93.0%)	161 (80.5%)	347 (86.8%)	
Not Consumed	14 (7.0%)	39 (19.5%)	53 (13.2%)	
Beverages				0.514
Consumed	181 (90.5%)	177 (88.5%)	358 (89.5%)	
Not Consumed	19 (9.5%)	23 (11.5%)	42 (10.5%)	
Soft drinks				0.057
Consumed	104 (52.0%)	85 (42.5%)	189 (47.2%)	
Not Consumed	96 (48.0%)	115 (57.5%)	211 (52.8%)	
Tea substitutes				< 0.001
Consumed	185 (92.5%)	160 (80.0%)	345 (86.2%)	
Not Consumed	15 (7.5%)	40 (20.0%)	55 (13.8%)	

	TD control group (N=200)	ASD group (N=200)	Total (N=400)	p-value
Canned food				< 0.001
Consumed	162 (81.0%)	122 (61.0%)	284 (71.0%)	
Not Consumed	38 (19.0%)	78 (39.0%)	116 (29.0%)	
Aluminum foil				0.303
Consumed	41 (20.5%)	33 (16.5%)	74 (18.5%)	
Not Consumed	159 (79.5%)	167 (83.5%)	326 (81.5%)	
Unpeeled fruits				< 0.001
Consumed	179 (89.5%)	124 (62.0%)	303 (75.8%)	
Not Consumed	21 (10.5%)	76 (38.0%)	97 (24.2%)	
Animal fat				0.003
Consumed	44 (22.0%)	22 (11.0%)	66 (16.5%)	
Not Consumed	156 (78.0%)	178 (89.0%)	334 (83.5%)	0.004