Study or Subgroup	Experimental Mean	Experimental SD	Experimental Total	Control Mean	Control SD	Control Total	Weight	Mean Difference IV, Random, 95% CI	Year
6.4.1 dosage of anthocyanins ≥80 mg									
Dohadwala 2011	−0.02	0.61	22	0.01	0.69	22	4.1%	−0.03 [−0.41, 0.35]	2011
Rahn 2023	0.09	0.56	18	0.24	0.42	18	5.3%	−0.15 [−0.47, 0.17]	2023
Subtotal (95% CI)			**40**			**40**	**9.4%**	**−0.10 [−0.35, 0.15]**	
Heterogeneity: Tau^2 = 0.00; Chi^2 = 0.22, df = 1 (P = 0.64); I^2 = 0%									
Test for overall effect: Z = 0.79 (P = 0.43)									
6.4.2 dosage of anthocyanins < 80 mg									
Duthie 2006	0.24	0.37	11	−0.01	0.35	9	5.5%	0.25 [−0.07, 0.57]	2006
Lee 2008	−0.1	0.77	15	0	0.39	15	3.3%	−0.10 [−0.54, 0.34]	2008
Basu 2011	0.07	0.16	15	−0.04	0.11	16	17.5%	0.11 [0.01, 0.21]	2011
Flammer 2013	0.07	0.31	32	−0.1	0.33	37	13.3%	0.17 [0.02, 0.32]	2013
Novotny 2015	−0.13	0.47	29	−0.03	0.5	27	7.5%	−0.10 [−0.35, 0.15]	2015
Javid 2017	−0.24	1.01	9	−0.25	0.39	12	1.4%	0.01 [−0.69, 0.71]	2017
Hsia 2020	−0.16	0.42	18	0.1	0.37	17	7.3%	−0.26 [−0.52, 0.00]	2020
Richter 2021	−0.01	0.43	40	0.06	0.47	40	10.3%	−0.07 [−0.27, 0.13]	2021
Heiss 2022	0.13	0.46	22	−0.07	0.46	22	6.9%	0.20 [−0.07, 0.47]	2022
Flanagan 2022	0.1	0.4	29	−0.1	0.56	31	7.9%	0.20 [−0.05, 0.45]	2022
Subtotal (95% CI)			**220**			**226**	**80.9%**	**0.06 [−0.04, 0.16]**	
Heterogeneity: Tau^2 = 0.01; Chi^2 = 15.81, df = 9 (P = 0.07); I^2 = 43%									
Test for overall effect: Z = 1.20 (P = 0.23)									
6.4.3 unavailable									
Paquette 2017	−0.21	1.01	20	−0.17	1.06	21	1.7%	−0.04 [−0.67, 0.59]	2017
Hormoznejad 2020	−0.17	0.39	20	−0.55	1.37	21	1.8%	0.38 [−0.23, 0.99]	2020
Shirazi 2021	−0.09	0.74	46	0.08	0.71	48	6.2%	−0.17 [−0.46, 0.12]	2021
Subtotal (95% CI)			**86**			**90**	**9.7%**	**−0.03 [−0.33, 0.27]**	
Heterogeneity: Tau^2 = 0.02; Chi^2 = 2.54, df = 2 (P = 0.28); I^2 = 21%									
Test for overall effect: Z = 0.19 (P = 0.85)									
Total (95% CI)			**346**			**356**	**100.0%**	**0.04 [−0.05, 0.12]**	
Heterogeneity: Tau^2 = 0.01; Chi^2 = 21.50, df = 14 (P = 0.09); I^2 = 35%									
Test for overall effect: Z = 0.80 (P = 0.42)									
Test for subgroup differences: Chi^2 = 1.56, df = 2 (P = 0.46), I^2 = 0%									