Study or Subgroup	Experimental Mean	Experimental SD	Experimental Total	Control Mean	Control SD	Control Total	Weight	Mean Difference IV, Random, 95% CI	Year
4.6.1 healthy population									
Novotny 2015	−0.03	3.42	29	0.18	3.72	27	17.0%	−0.21 [−2.09, 1.67]	2015
Subtotal (95% CI)			**29**			**27**	**17.0%**	**−0.21 [−2.09, 1.67]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.22 (P = 0.83)									
4.6.2 population with metabolic diseases									
Lee 2008	−0.1	3.1	15	0.4	3.1	15	15.5%	−0.50 [−2.72, 1.72]	2008
Hormoznejad 2020	−2.35	1.59	20	−0.85	1.62	21	20.9%	−1.50 [−2.48, −0.52]	2020
Richter 2021	0.2	3.35	40	0.1	3.29	40	18.9%	0.10 [−1.36, 1.56]	2021
Shirazi 2021	−4.7	2.72	46	−0.59	2.98	48	20.2%	−4.11 [−5.26, −2.96]	2021
Subtotal (95% CI)			**121**			**124**	**75.5%**	**−1.58 [−3.47, 0.31]**	
Heterogeneity: $Tau^2 = 3.16$; $Chi^2 = 23.55$, df = 3 (P < 0.0001); $I^2 = 87\%$									
Test for overall effect: Z = 1.64 (P = 0.10)									
4.6.3 population with coronary artery disease or CVD risk									
Dohadwala 2011	−1	8	22	0	7.55	22	7.5%	−1.00 [−5.60, 3.60]	2011
Subtotal (95% CI)			**22**			**22**	**7.5%**	**−1.00 [−5.60, 3.60]**	
Heterogeneity: Not applicable									
Test for overall effect: Z = 0.43 (P = 0.67)									
Total (95% CI)			**172**			**173**	**100.0%**	**−1.31 [−2.85, 0.22]**	
Heterogeneity: $Tau^2 = 2.68$; $Chi^2 = 26.46$, df = 5 (P < 0.0001); $I^2 = 81\%$									
Test for overall effect: Z = 1.68 (P = 0.09)									
Test for subgroup differences: $Chi^2 = 1.02$, df = 2 (P = 0.60), $I^2 = 0\%$									