Online resource 4 Additional analyses to primary outcomes
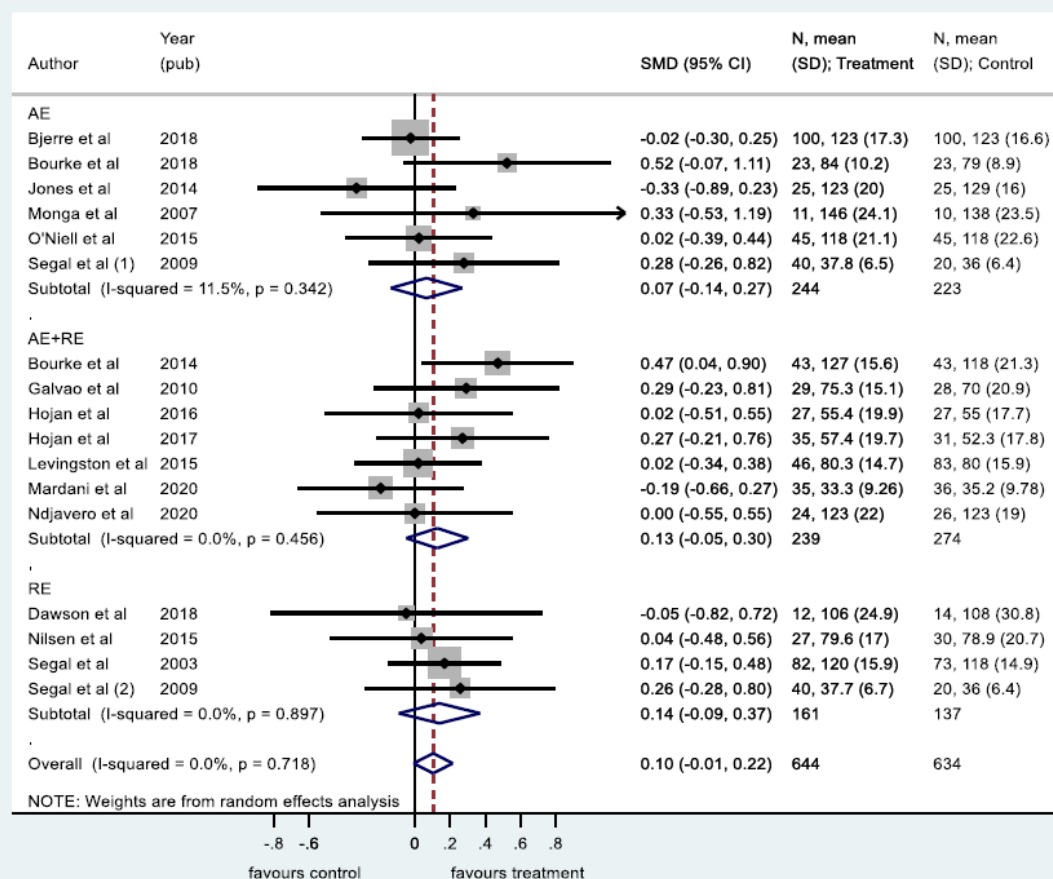
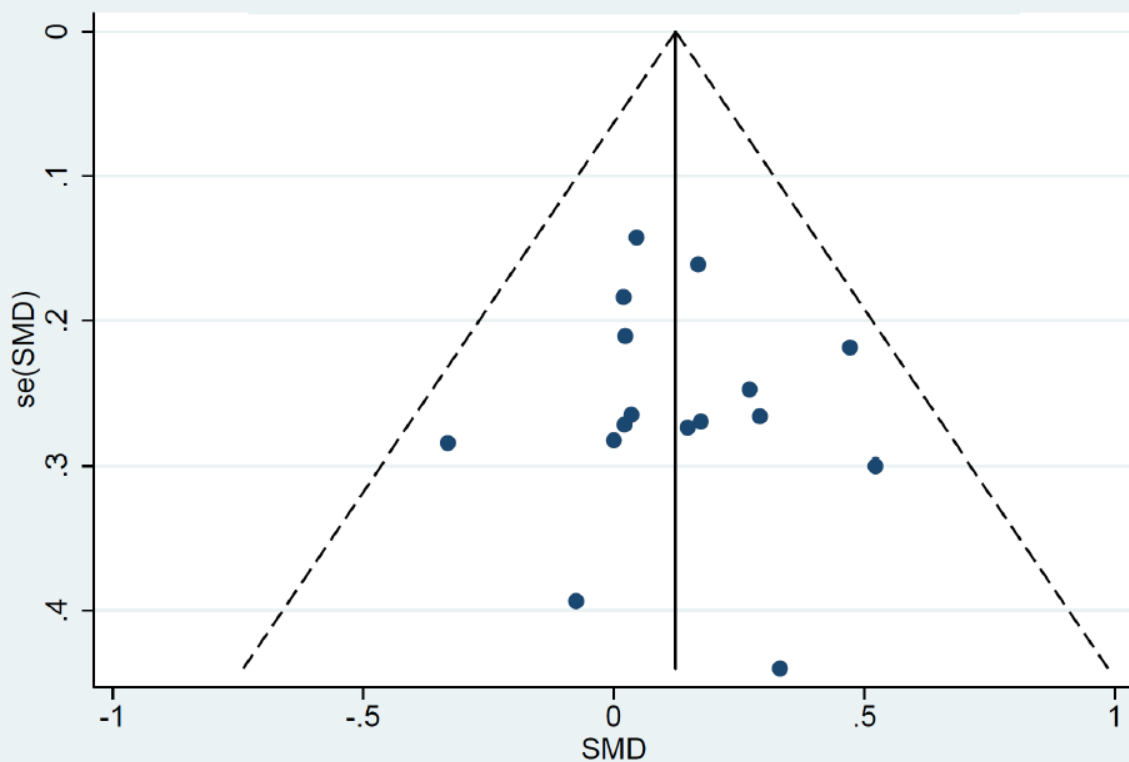**Cancer-specific Quality of Life**

Author	Year (pub)	SMD (95% CI)	N, mean (SD); Treatment	N, mean (SD); Control
AE				
Bjerre et al	2018	-0.02 (-0.30, 0.25)	100, 123 (17.3)	100, 123 (16.6)
Bourke et al	2018	0.52 (-0.07, 1.11)	23, 84 (10.2)	23, 79 (8.9)
Jones et al	2014	-0.33 (-0.89, 0.23)	25, 123 (20)	25, 129 (16)
Monga et al	2007	0.33 (-0.53, 1.19)	11, 146 (24.1)	10, 138 (23.5)
O'Niell et al	2015	0.02 (-0.39, 0.44)	45, 118 (21.1)	45, 118 (22.6)
Segal et al (1)	2009	0.28 (-0.26, 0.82)	40, 37.8 (6.5)	20, 36 (6.4)
Subtotal (I-squared = 11.5%, p = 0.342)		0.07 (-0.14, 0.27)	244	223
AE+RE				
Bourke et al	2014	0.47 (0.04, 0.90)	43, 127 (15.6)	43, 118 (21.3)
Galvao et al	2010	0.29 (-0.23, 0.81)	29, 75.3 (15.1)	28, 70 (20.9)
Hojan et al	2016	0.02 (-0.51, 0.55)	27, 55.4 (19.9)	27, 55 (17.7)
Hojan et al	2017	0.27 (-0.21, 0.76)	35, 57.4 (19.7)	31, 52.3 (17.8)
Levingston et al	2015	0.02 (-0.34, 0.38)	46, 80.3 (14.7)	83, 80 (15.9)
Mardani et al	2020	-0.19 (-0.66, 0.27)	35, 33.3 (9.26)	36, 35.2 (9.78)
Ndjavero et al	2020	0.00 (-0.55, 0.55)	24, 123 (22)	26, 123 (19)
Subtotal (I-squared = 0.0%, p = 0.456)		0.13 (-0.05, 0.30)	239	274
RE				
Dawson et al	2018	-0.05 (-0.82, 0.72)	12, 106 (24.9)	14, 108 (30.8)
Nilsen et al	2015	0.04 (-0.48, 0.56)	27, 79.6 (17)	30, 78.9 (20.7)
Segal et al	2003	0.17 (-0.15, 0.48)	82, 120 (15.9)	73, 118 (14.9)
Segal et al (2)	2009	0.26 (-0.28, 0.80)	40, 37.7 (6.7)	20, 36 (6.4)
Subtotal (I-squared = 0.0%, p = 0.897)		0.14 (-0.09, 0.37)	161	137
Overall (I-squared = 0.0%, p = 0.718)		0.10 (-0.01, 0.22)	644	634

NOTE: Weights are from random effects analysis

-.8 -.6 0 .2 .4 .6 .8

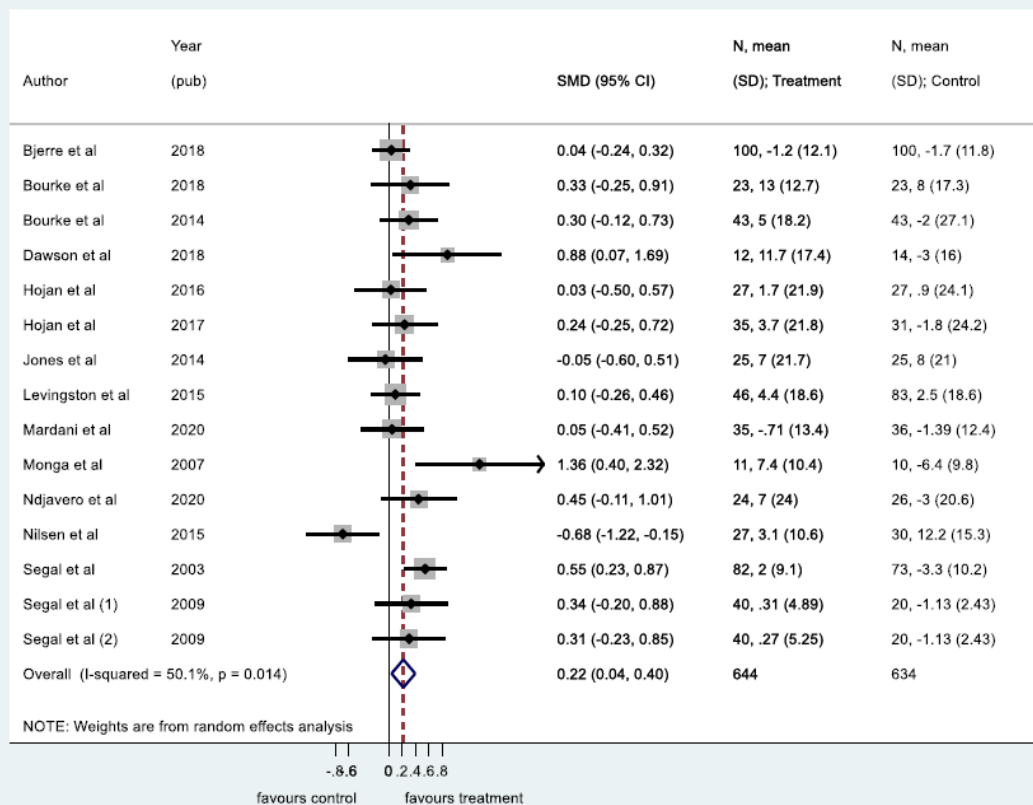favours control   favours treatment

Figure S1. Pooled standard mean difference (SMD) on Cancer-specific quality of life comparing exercise interventions with usual care or control in men with prostate cancer stratified after exercise modality. A random effects model of DerSimonian & Laird, with estimate of heterogeneity from the Mantel-Haenszel model was used. AE: aerobic exercise, RE: resistance exercise.

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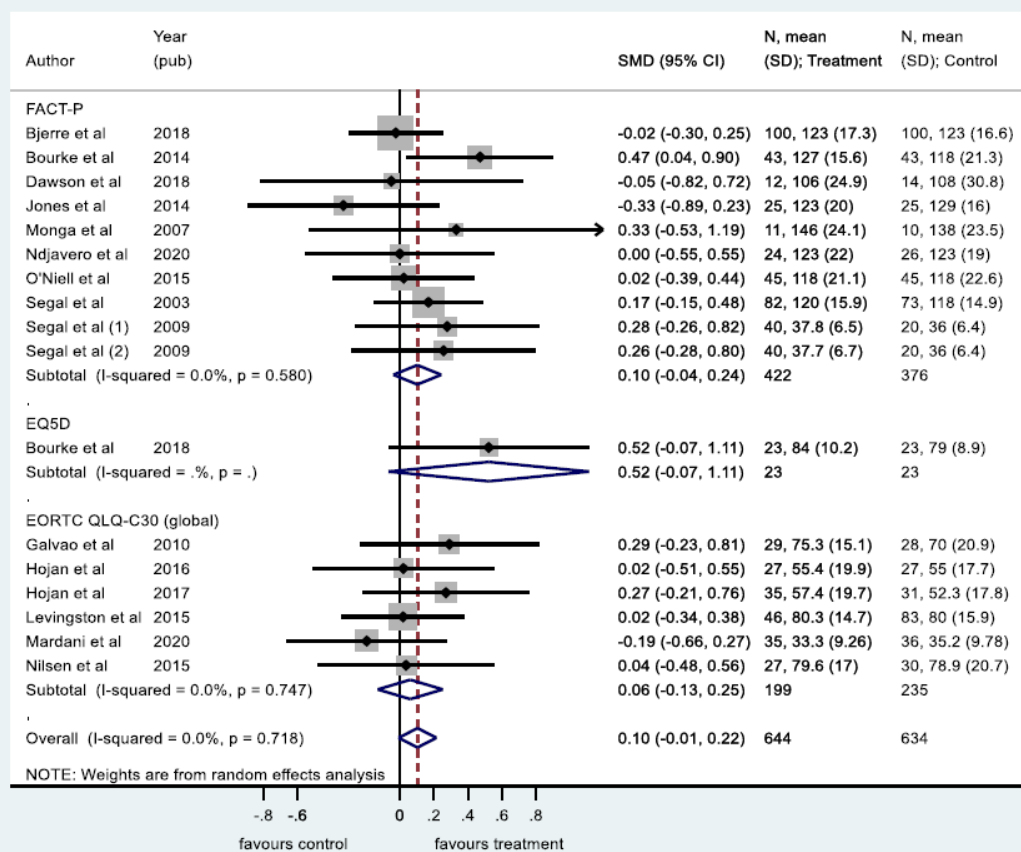
Figure S2. Pooled standard mean difference (SMD) on Cancer-specific quality of life comparing exercise interventions with usual care or control in men with prostate cancer stratified after assessment instrument. A random effects model of DerSimonian & Laird, with estimate of heterogeneity from the Mantel-Haenszel model was used.
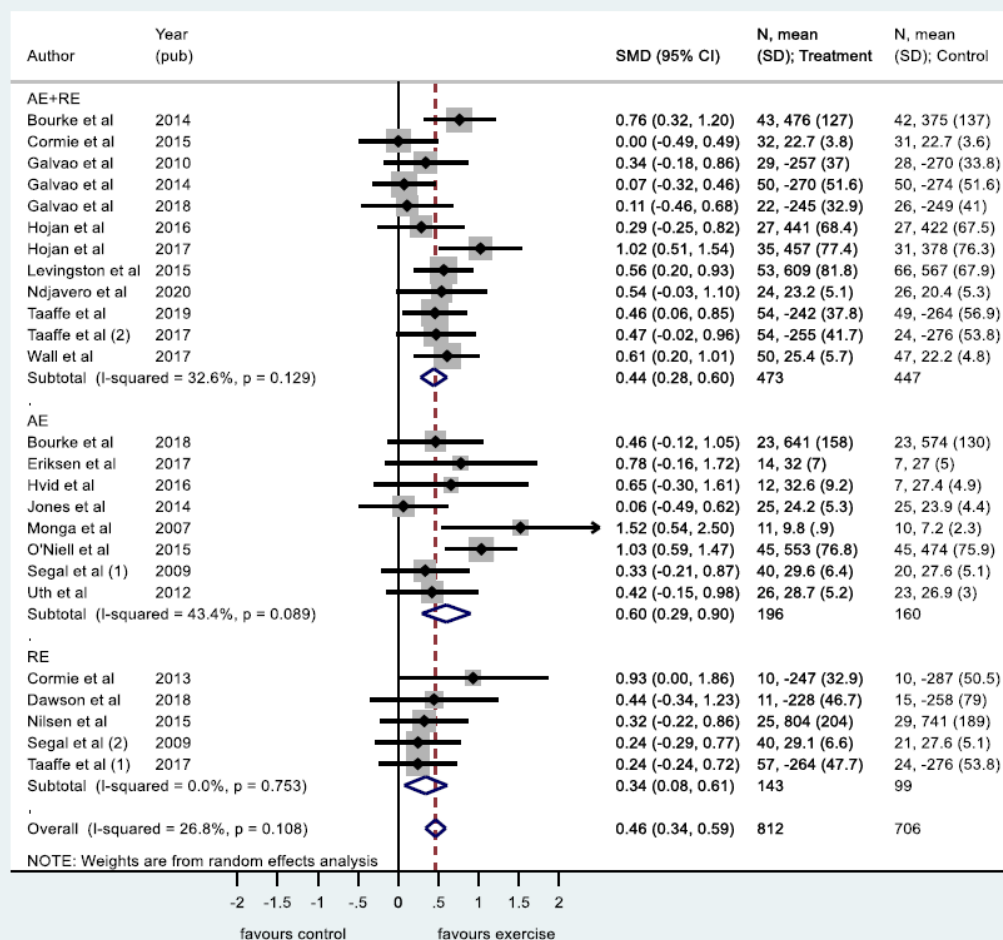
Figure S3. Funnel plot with pseudo 95% confidence limit onCancer-specific quality of life in men with prostate cancer. Egger's test showed no small-study effects (P=0.729).

Author	Year (pub)	SMD (95% CI)	N, mean (SD); Treatment	N, mean (SD); Control
Bjerre et al	2018	0.04 (-0.24, 0.32)	100, -1.2 (12.1)	100, -1.7 (11.8)
Bourke et al	2018	0.33 (-0.25, 0.91)	23, 13 (12.7)	23, 8 (17.3)
Bourke et al	2014	0.30 (-0.12, 0.73)	43, 5 (18.2)	43, -2 (27.1)
Dawson et al	2018	0.88 (0.07, 1.69)	12, 11.7 (17.4)	14, -3 (16)
Hojan et al	2016	0.03 (-0.50, 0.57)	27, 1.7 (21.9)	27, .9 (24.1)
Hojan et al	2017	0.24 (-0.25, 0.72)	35, 3.7 (21.8)	31, -1.8 (24.2)
Jones et al	2014	-0.05 (-0.60, 0.51)	25, 7 (21.7)	25, 8 (21)
Levingston et al	2015	0.10 (-0.26, 0.46)	46, 4.4 (18.6)	83, 2.5 (18.6)
Mardani et al	2020	0.05 (-0.41, 0.52)	35, -.71 (13.4)	36, -1.39 (12.4)
Monga et al	2007	1.36 (0.40, 2.32)	11, 7.4 (10.4)	10, -6.4 (9.8)
Ndjavero et al	2020	0.45 (-0.11, 1.01)	24, 7 (24)	26, -3 (20.6)
Nilsen et al	2015	-0.68 (-1.22, -0.15)	27, 3.1 (10.6)	30, 12.2 (15.3)
Segal et al	2003	0.55 (0.23, 0.87)	82, 2 (9.1)	73, -3.3 (10.2)
Segal et al (1)	2009	0.34 (-0.20, 0.88)	40, .31 (4.89)	20, -1.13 (2.43)
Segal et al (2)	2009	0.31 (-0.23, 0.85)	40, .27 (5.25)	20, -1.13 (2.43)
Overall (I-squared = 50.1%, p = 0.014)		0.22 (0.04, 0.40)	644	634

NOTE: Weights are from random effects analysis

-.8.6   0.2.4.6.8
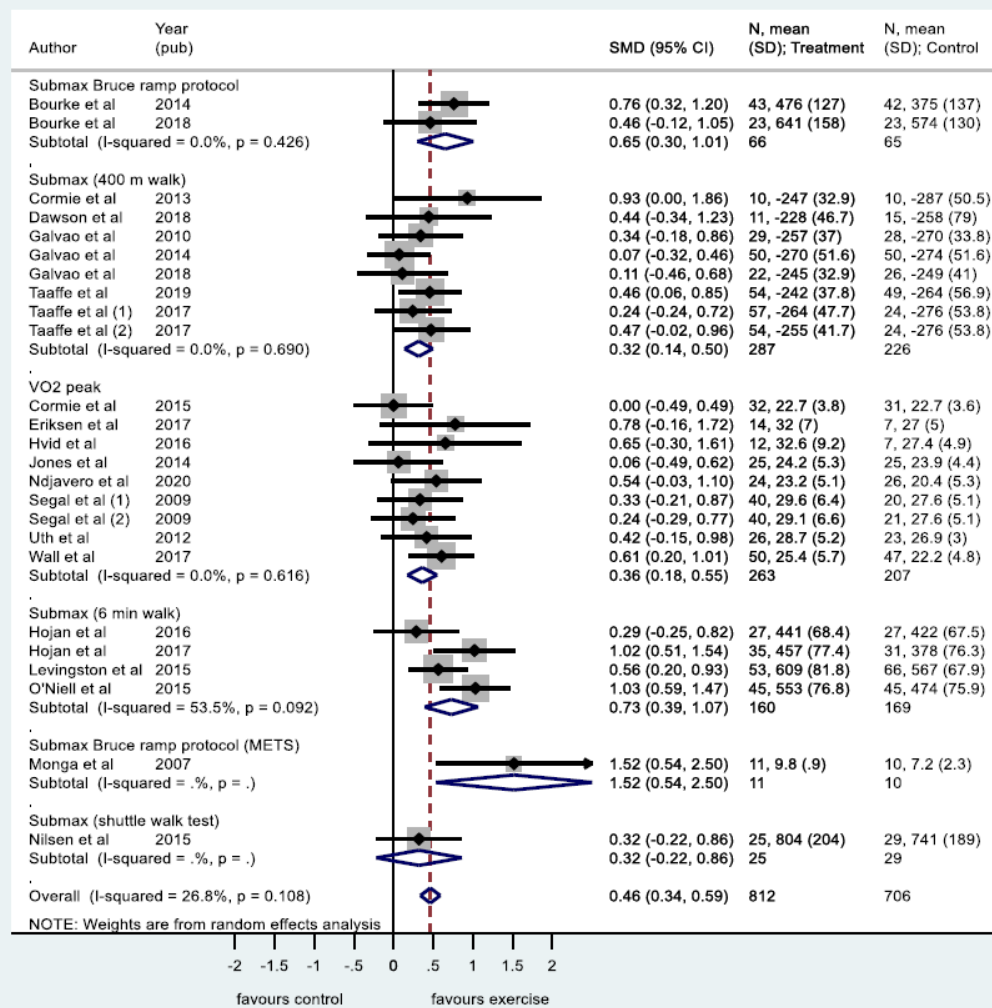
favours control   favours treatment

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Figure S4. Pooled standard mean difference (SMD) for change score values on Cancer-specific quality of life comparing exercise interventions with usual care or control in men with prostate cancer. A random effects model of DerSimonian & Laird, with estimate of heterogeneity from the Mantel-Haenszel model was used.
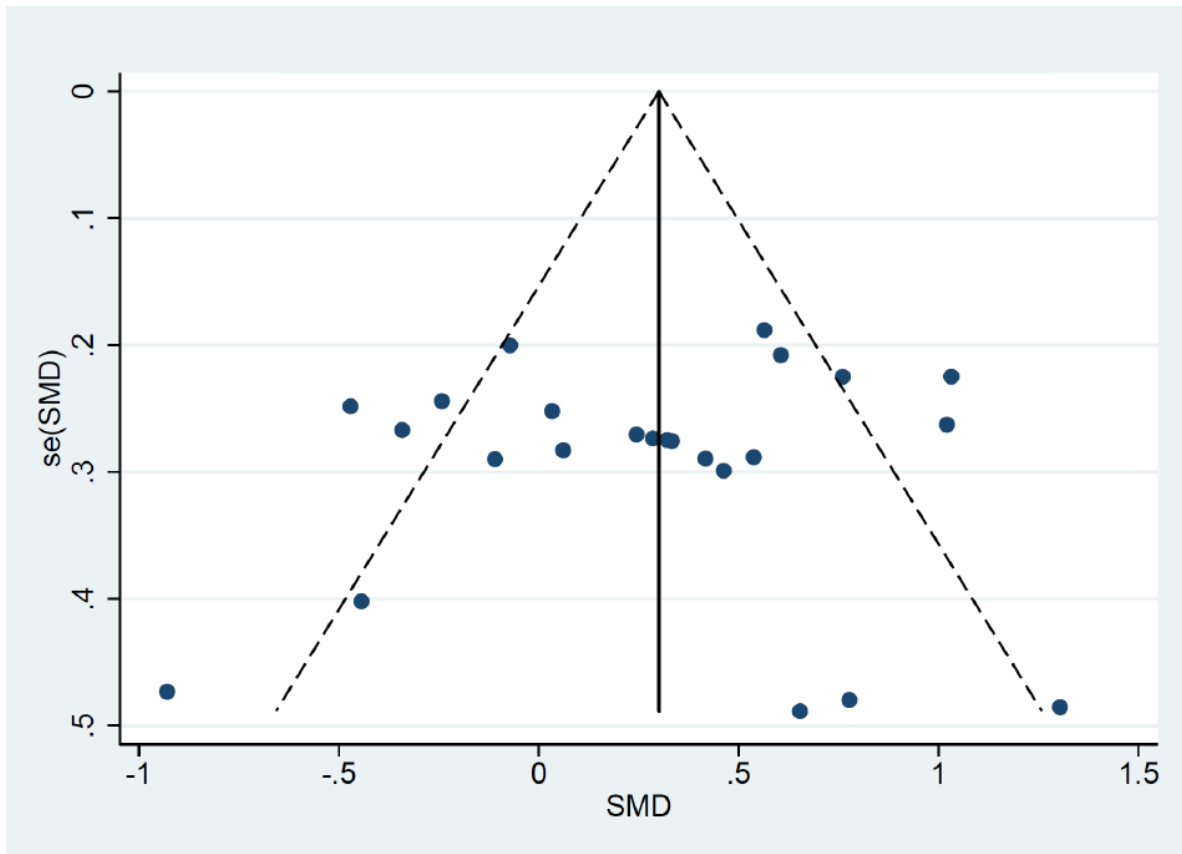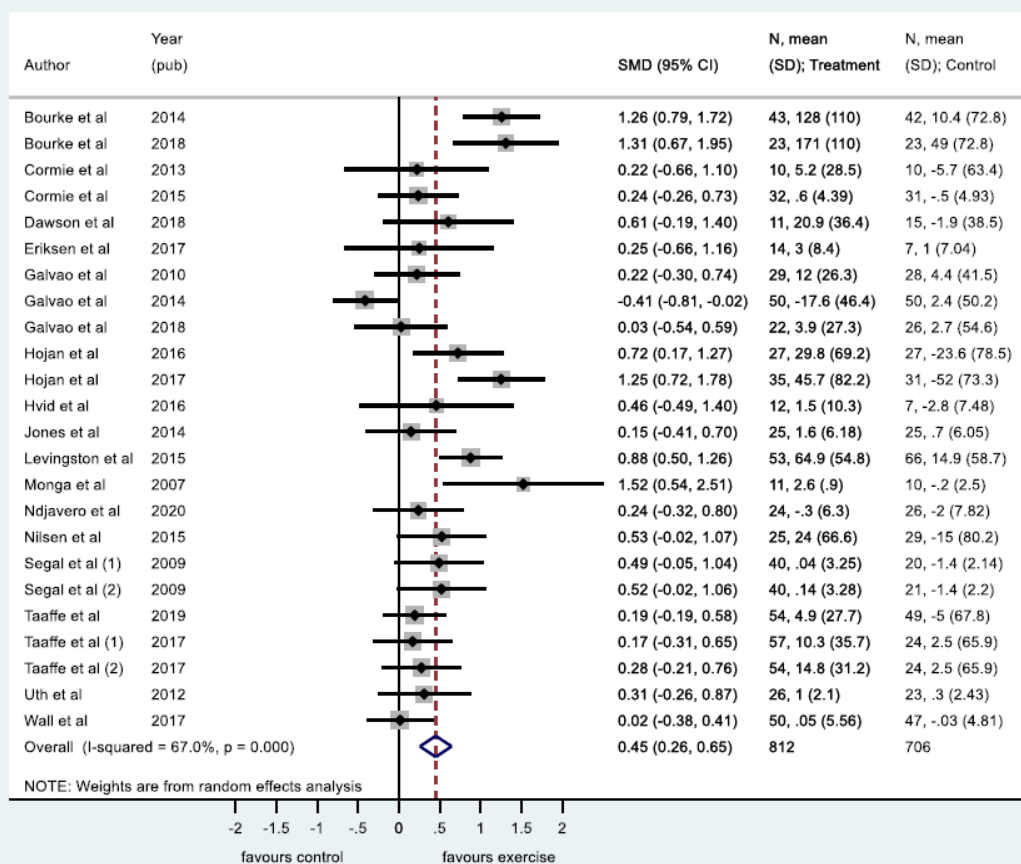
Cardiovascular fitness

Figure S5. Pooled standard mean difference (SMD) on Cardiovascular fitness comparing exercise interventions with usual care or control in men with prostate cancer stratified after exercise modality. A random effects model of DerSimonian & Laird, with estimate of heterogeneity from the Mantel-Haenszel model was used.

Author	Year (pub)	SMD (95% CI)	N, mean (SD); Treatment	N, mean (SD); Control
Submax Bruce ramp protocol				
Bourke et al	2014	0.76 (0.32, 1.20)	43, 476 (127)	42, 375 (137)
Bourke et al	2018	0.46 (-0.12, 1.05)	23, 641 (158)	23, 574 (130)
Subtotal (I-squared = 0.0%, p = 0.426)		0.65 (0.30, 1.01)	66	65
Submax (400 m walk)				
Cormie et al	2013	0.93 (0.00, 1.86)	10, -247 (32.9)	10, -287 (50.5)
Dawson et al	2018	0.44 (-0.34, 1.23)	11, -228 (46.7)	15, -258 (79)
Galvao et al	2010	0.34 (-0.18, 0.86)	29, -257 (37)	28, -270 (33.8)
Galvao et al	2014	0.07 (-0.32, 0.46)	50, -270 (51.6)	50, -274 (51.6)
Galvao et al	2018	0.11 (-0.46, 0.68)	22, -245 (32.9)	26, -249 (41)
Taaffe et al	2019	0.46 (0.06, 0.85)	54, -242 (37.8)	49, -264 (56.9)
Taaffe et al (1)	2017	0.24 (-0.24, 0.72)	57, -264 (47.7)	24, -276 (53.8)
Taaffe et al (2)	2017	0.47 (-0.02, 0.96)	54, -255 (41.7)	24, -276 (53.8)
Subtotal (I-squared = 0.0%, p = 0.690)		0.32 (0.14, 0.50)	287	226
VO2 peak				
Cormie et al	2015	0.00 (-0.49, 0.49)	32, 22.7 (3.8)	31, 22.7 (3.6)
Eriksen et al	2017	0.78 (-0.16, 1.72)	14, 32 (7)	7, 27 (5)
Hvid et al	2016	0.65 (-0.30, 1.61)	12, 32.6 (9.2)	7, 27.4 (4.9)
Jones et al	2014	0.06 (-0.49, 0.62)	25, 24.2 (5.3)	25, 23.9 (4.4)
Ndjavero et al	2020	0.54 (-0.03, 1.10)	24, 23.2 (5.1)	26, 20.4 (5.3)
Segal et al (1)	2009	0.33 (-0.21, 0.87)	40, 29.6 (6.4)	20, 27.6 (5.1)
Segal et al (2)	2009	0.24 (-0.29, 0.77)	40, 29.1 (6.6)	21, 27.6 (5.1)
Uth et al	2012	0.42 (-0.15, 0.98)	26, 28.7 (5.2)	23, 26.9 (3)
Wall et al	2017	0.61 (0.20, 1.01)	50, 25.4 (5.7)	47, 22.2 (4.8)
Subtotal (I-squared = 0.0%, p = 0.616)		0.36 (0.18, 0.55)	263	207
Submax (6 min walk)				
Hojan et al	2016	0.29 (-0.25, 0.82)	27, 441 (68.4)	27, 422 (67.5)
Hojan et al	2017	1.02 (0.51, 1.54)	35, 457 (77.4)	31, 378 (76.3)
Levingston et al	2015	0.56 (0.20, 0.93)	53, 609 (81.8)	66, 567 (67.9)
O'Niell et al	2015	1.03 (0.59, 1.47)	45, 553 (76.8)	45, 474 (75.9)
Subtotal (I-squared = 53.5%, p = 0.092)		0.73 (0.39, 1.07)	160	169
Submax Bruce ramp protocol (METS)				
Monga et al	2007	1.52 (0.54, 2.50)	11, 9.8 (.9)	10, 7.2 (2.3)
Subtotal (I-squared = .%, p = .)		1.52 (0.54, 2.50)	11	10
Submax (shuttle walk test)				
Nilsen et al	2015	0.32 (-0.22, 0.86)	25, 804 (204)	29, 741 (189)
Subtotal (I-squared = .%, p = .)		0.32 (-0.22, 0.86)	25	29
Overall (I-squared = 26.8%, p = 0.108)		0.46 (0.34, 0.59)	812	706

NOTE: Weights are from random effects analysis

-2 -1.5 -1 -.5 0 .5 1 1.5 2

favours control   favours exercise

Figure S6. Pooled standard mean difference (SMD) on Cardiovascular fitness comparing exercise interventions with usual care or control in men with prostate cancer stratified after assessment instrument. A random effects model of DerSimonian & Laird, with estimate of heterogeneity from the Mantel-Haenszel model was used.

Figure S7. Funnel plot with pseudo 95% confidence limit on Cardiovascular function in men with prostate cancer. Egger's test showed no small-study effects (P=0.647)

Figure S8. Pooled standard mean difference (SMD) for change score values on Cardiovascular fitness comparing exercise interventions with usual care or control in men with prostate cancer. A random effects model of DerSimonian & Laird, with estimate of heterogeneity from the Mantel-Haenszel model was used.