Mediation of Total Fruit Diet Quality

a_1:pro = -0.68 (-1.74,0.37)
a_1:con = 0.71 (-0.36,1.78)

Decisional balance

b_1:pro = 0.00 (-0.08,0.07)
b_1:con = 0.02 (-0.04,0.09)

a_2 = -0.86 (-1.91,0.20)

Self-efficacy

b_2 = 0.06 (-0.01,0.13)

Intervention

c' = -0.03 (-0.15,0.10)

Change in total fruit diet quality

a_3 = -0.48 (-1.82,0.85)

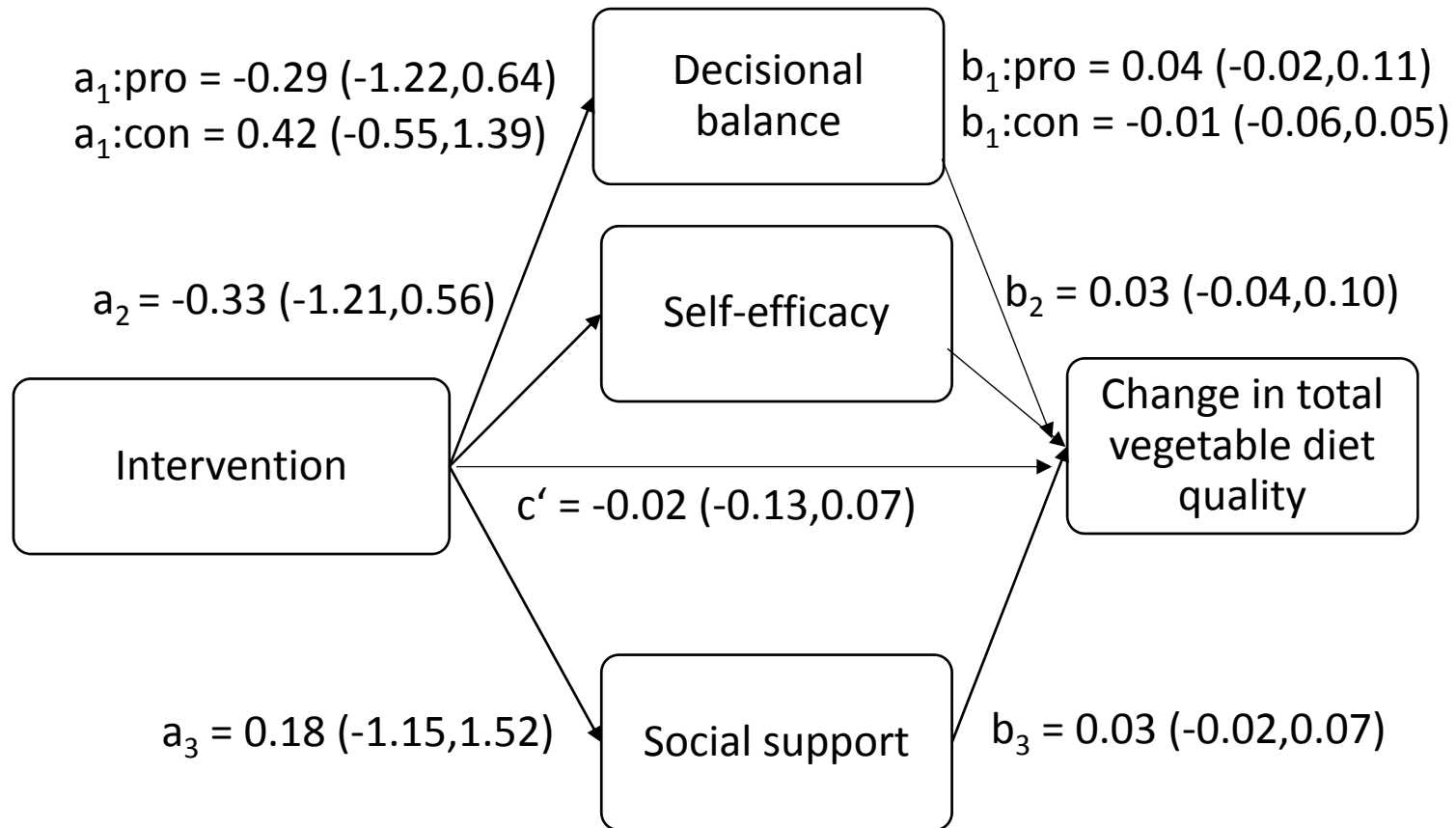Social support

b_3 = 0.00 (-0.07,0.05)
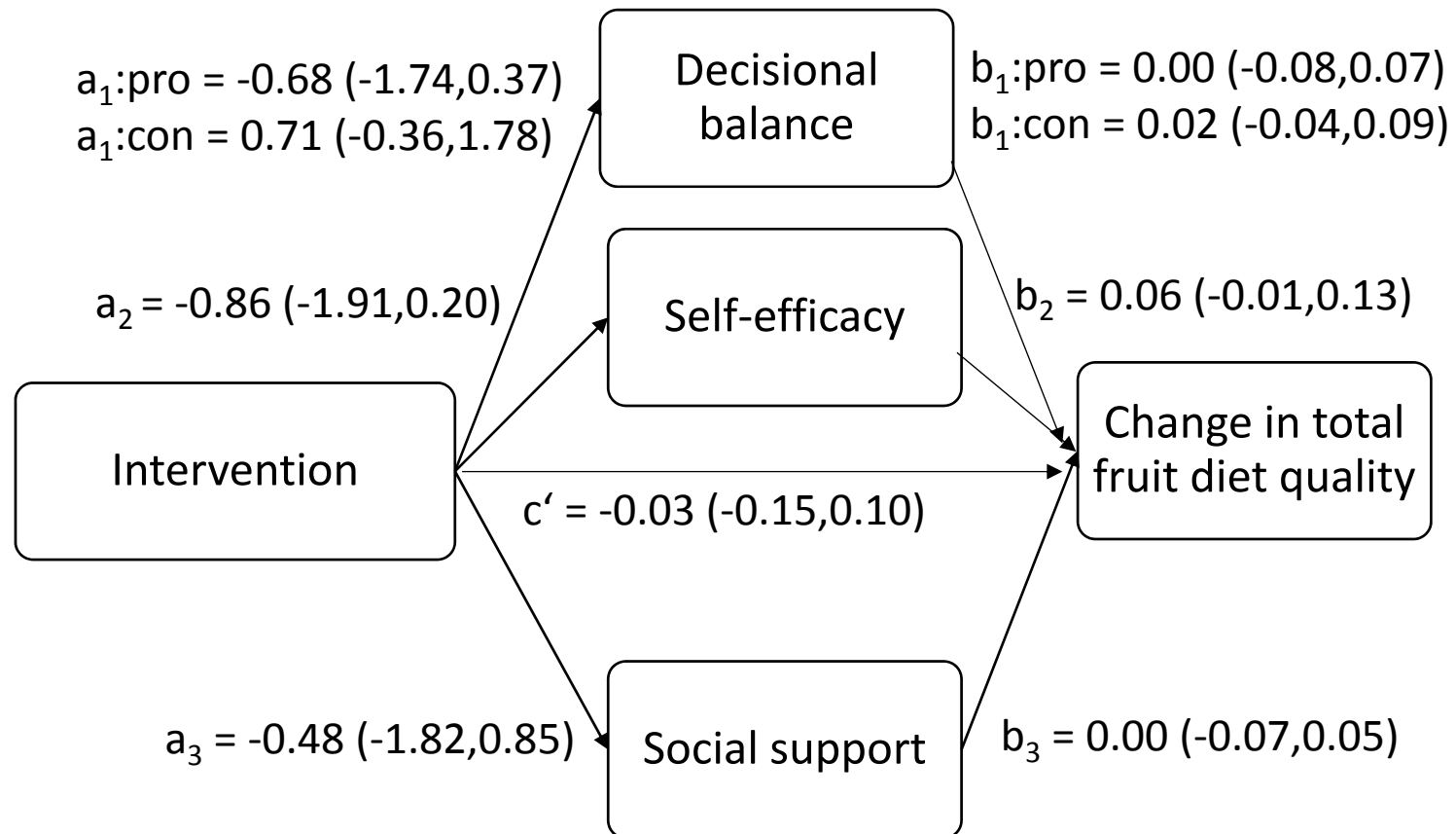
Supplementary Fig. 2 Mediation of intervention effects on change in total fruit diet quality by psychosocial constructs. Model coefficients a_1, a_2, and a_3 represent direct effects of the intervention on the psychosocial constructs. Model coefficients b_1, b_2, and b_3 represent direct effects of the psychosocial constructs on change in total fruit diet quality. Model coefficient c' represents the indirect effect of the psychosocial constructs on total fruit diet quality.

Mediation of Whole Fruit Diet Quality

a_1:pro = -0.68 (-1.74,0.37)
a_1:con = 0.71 (-0.36,1.78)

Decisional balance

b_1:pro = -0.02 (-0.10,0.06)
b_1:con = 0.04 (-0.03,0.12)

a_2 = -0.86 (-1.91,0.20)

Self-efficacy

b_2 = 0.06 (-0.02,0.14)

Intervention

Change in whole fruit diet quality

c' = 0.00 (-0.15,0.14)

a_3 = -0.48 (-1.82,0.85)
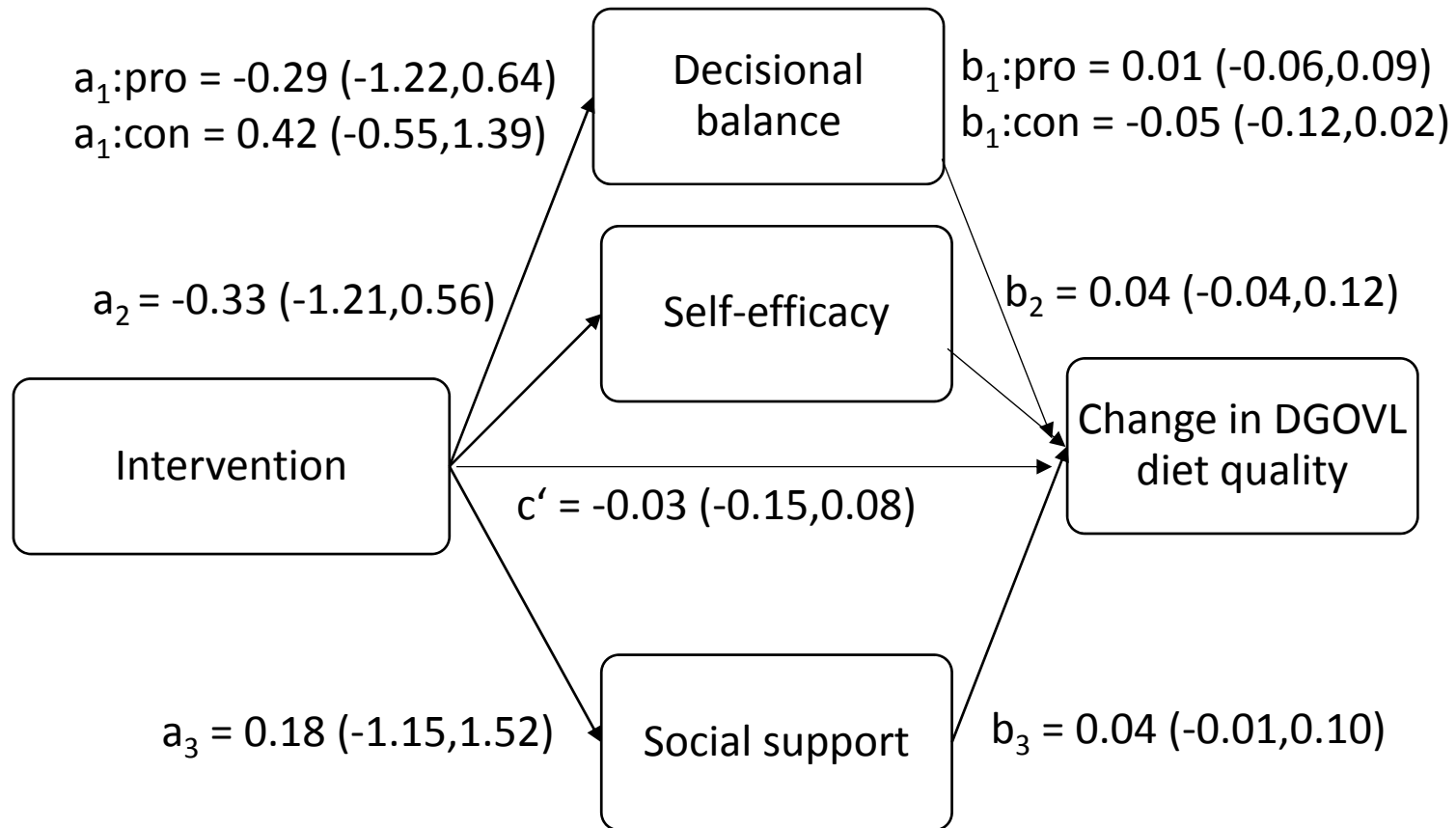
Social support

b_3 = 0.00 (-0.07,0.06)
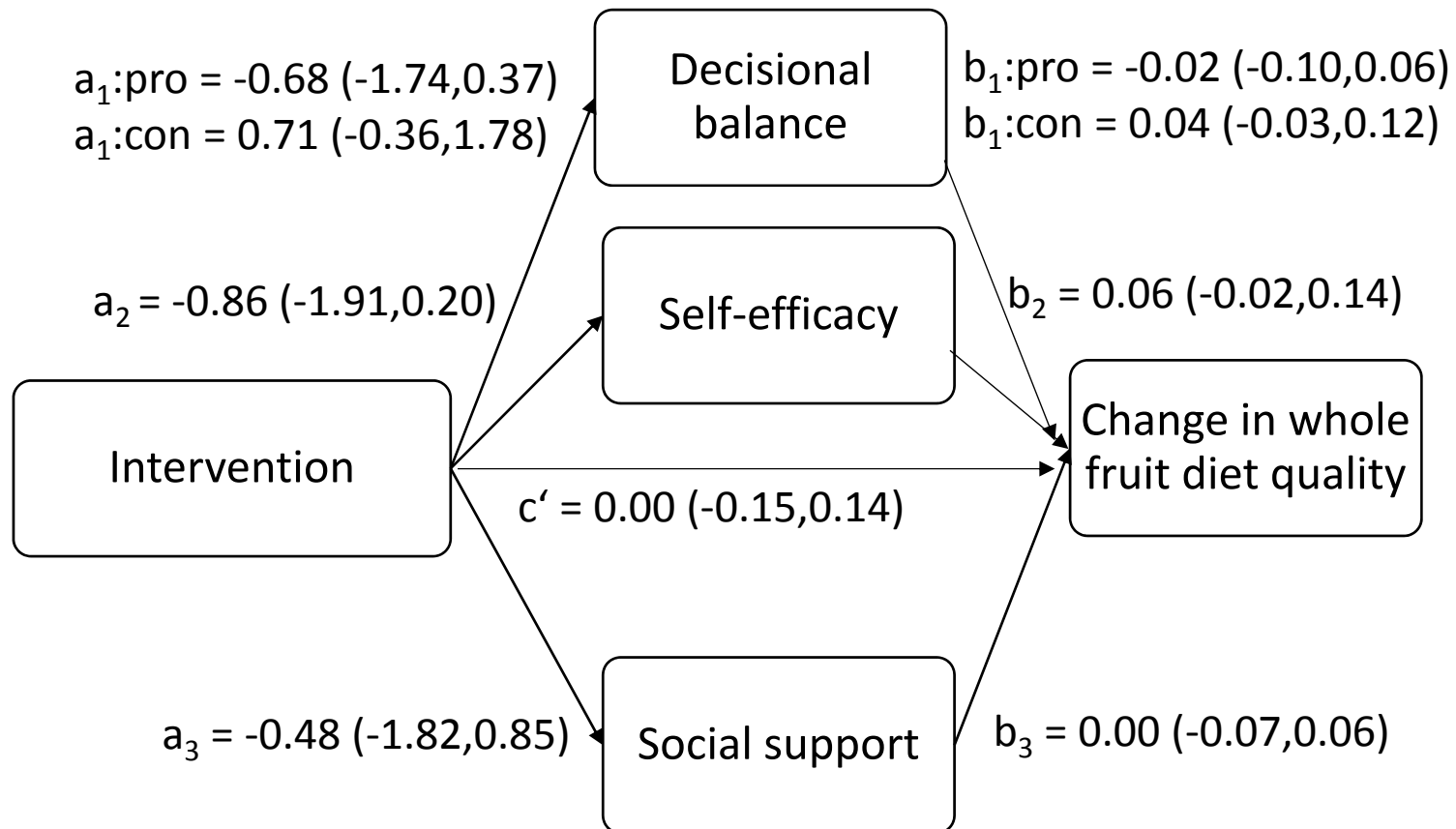
Supplementary Fig. 3 Mediation of intervention effects on change in whole fruit diet quality by psychosocial constructs. Model coefficients a_1, a_2, and a_3 represent direct effects of the intervention on the psychosocial constructs. Model coefficients b_1, b_2, and b_3 represent direct effects of the psychosocial constructs on change in whole fruit diet quality. Model coefficient c' represents the indirect effect of the psychosocial constructs on whole fruit diet quality.

Mediation of Total Vegetable Diet Quality

a_1:pro = -0.29 (-1.22,0.64)
a_1:con = 0.42 (-0.55,1.39)

Decisional balance

b_1:pro = 0.04 (-0.02,0.11)
b_1:con = -0.01 (-0.06,0.05)

a_2 = -0.33 (-1.21,0.56)

Self-efficacy

b_2 = 0.03 (-0.04,0.10)

Intervention

Change in total vegetable diet quality

c' = -0.02 (-0.13,0.07)

a_3 = 0.18 (-1.15,1.52)
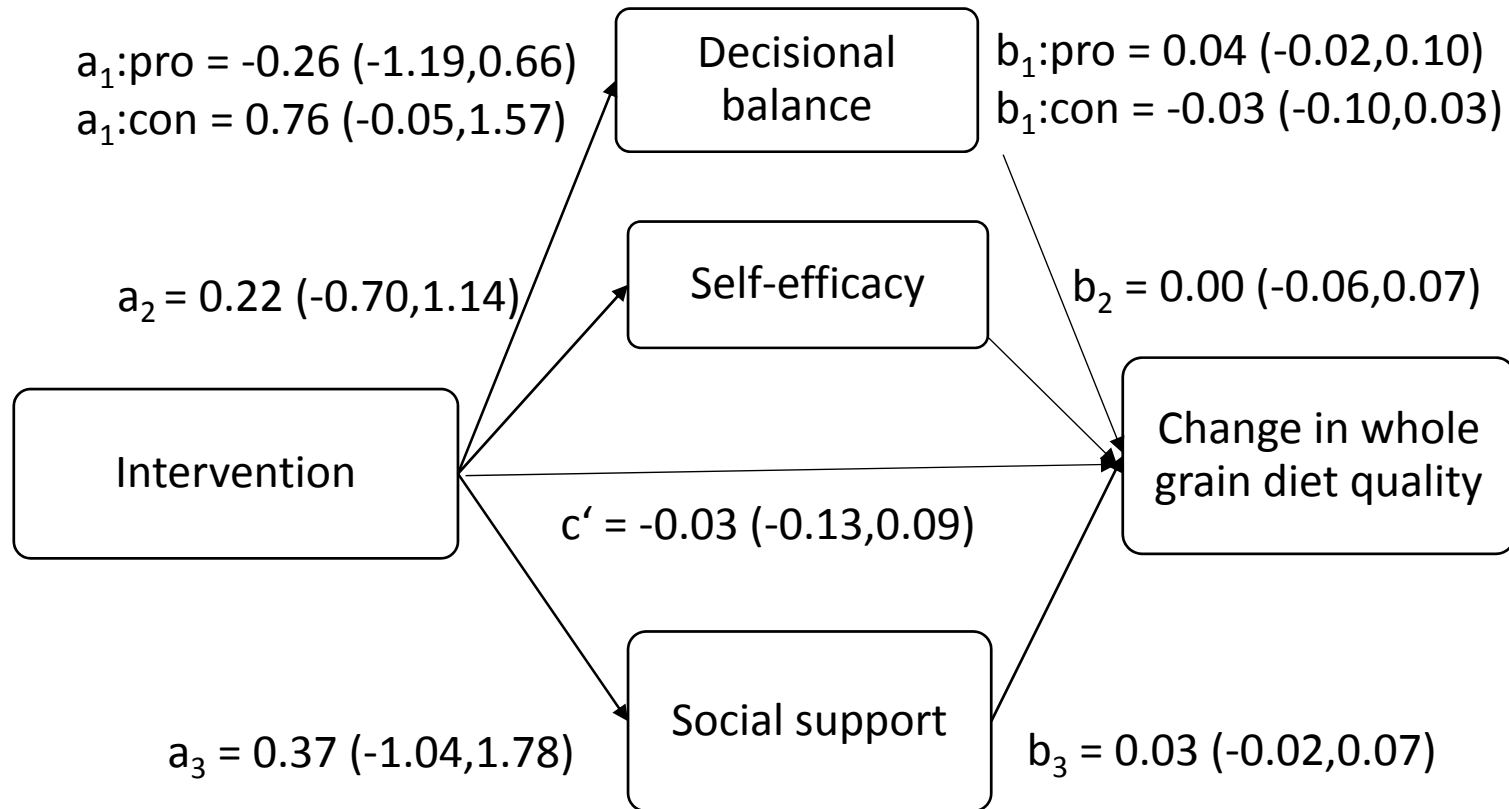
Social support

b_3 = 0.03 (-0.02,0.07)

Supplementary Fig. 4 Mediation of intervention effects on change in total vegetable diet quality by psychosocial constructs. Model coefficients a_1, a_2, and a_3 represent direct effects of the intervention on the psychosocial constructs. Model coefficients b_1, b_2, and b_3 represent direct effects of the psychosocial constructs on change in total vegetable diet quality. Model coefficient c' represents the indirect effect of the psychosocial constructs on total vegetable diet quality.

**Mediation of Dark Green and Orange
Vegetables and Legumes (DGOVL)**

a_1:pro = -0.29 (-1.22,0.64)
a_1:con = 0.42 (-0.55,1.39)

Decisional
balance

b_1:pro = 0.01 (-0.06,0.09)
b_1:con = -0.05 (-0.12,0.02)

a_2 = -0.33 (-1.21,0.56)

Self-efficacy

b_2 = 0.04 (-0.04,0.12)

Intervention

Change in DGOVL
diet quality

c' = -0.03 (-0.15,0.08)

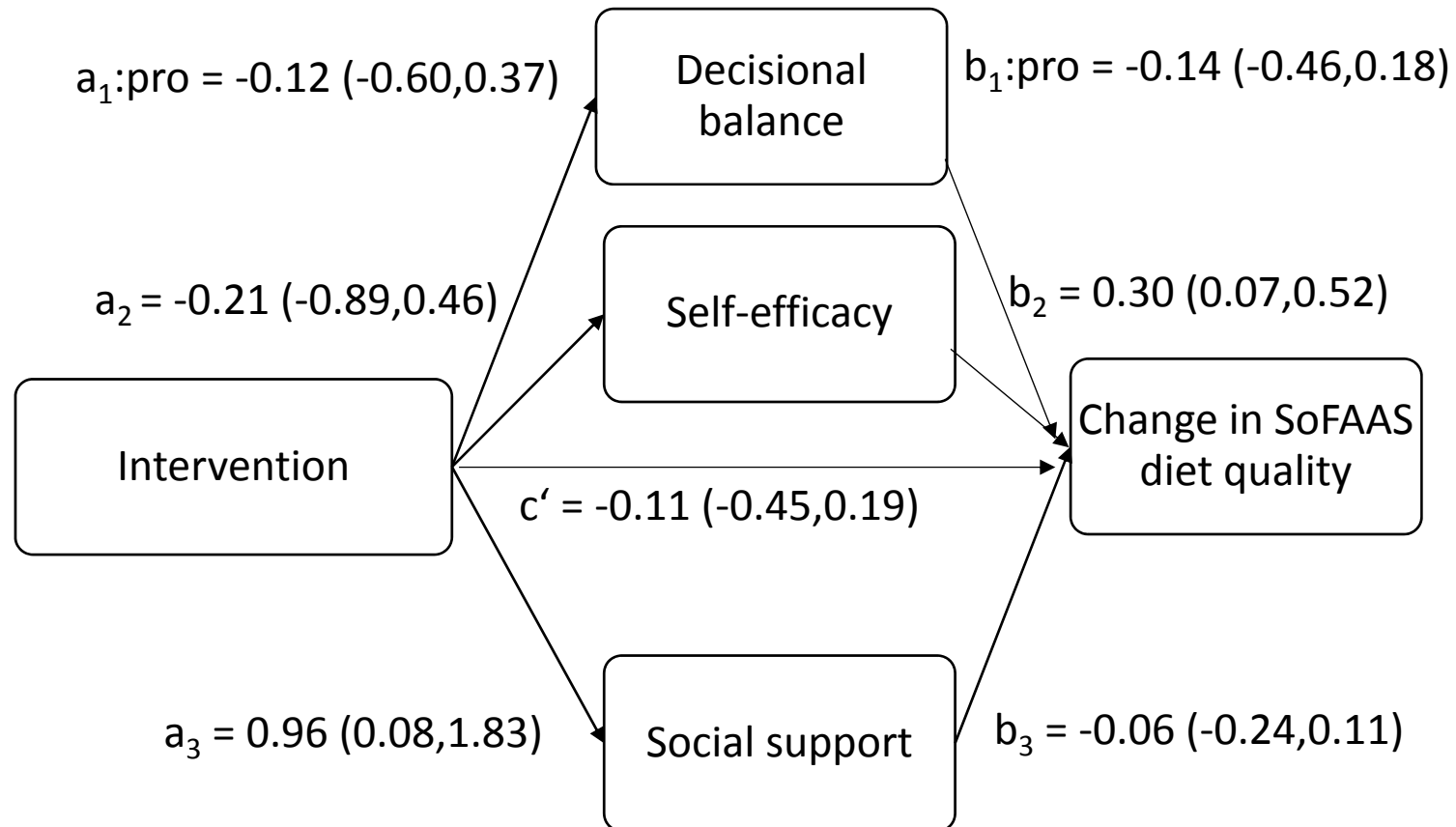a_3 = 0.18 (-1.15,1.52)

Social support

b_3 = 0.04 (-0.01,0.10)

Supplementary Fig. 5 Mediation of intervention effects on change in DGOVL diet quality by psychosocial constructs. Model coefficients a_1, a_2, and a_3 represent direct effects of the intervention on the psychosocial constructs. Model coefficients b_1, b_2, and b_3 represent direct effects of the psychosocial constructs on change in DGOVL quality. Model coefficient c' represents the indirect effect of the psychosocial constructs on DGOVL diet quality.

Mediation of Whole Grain Diet Quality

a_1:pro = -0.26 (-1.19,0.66)
a_1:con = 0.76 (-0.05,1.57)

Decisional balance

b_1:pro = 0.04 (-0.02,0.10)
b_1:con = -0.03 (-0.10,0.03)

a_2 = 0.22 (-0.70,1.14)

Self-efficacy

b_2 = 0.00 (-0.06,0.07)

Intervention

Change in whole grain diet quality

c' = -0.03 (-0.13,0.09)

a_3 = 0.37 (-1.04,1.78)
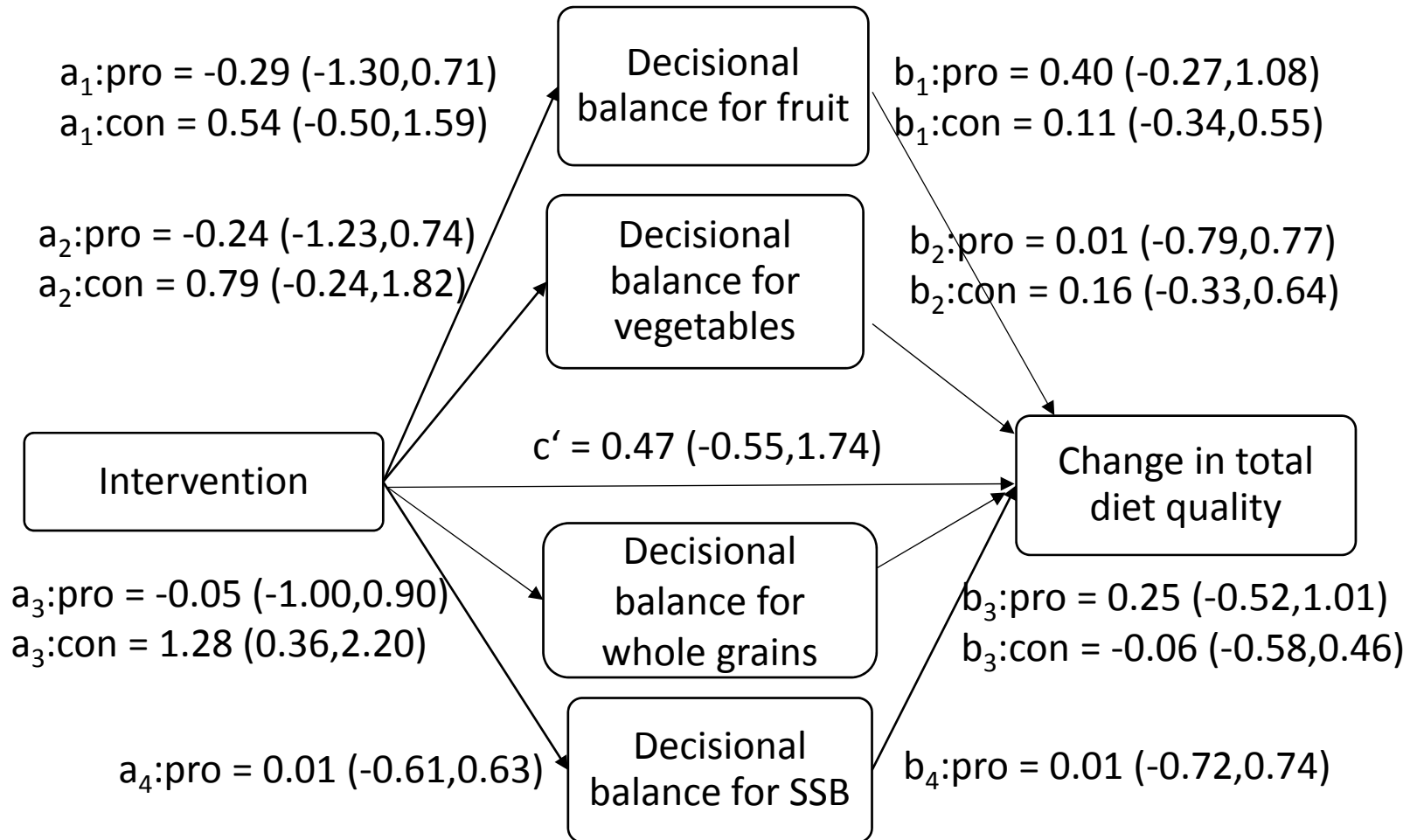
Social support

b_3 = 0.03 (-0.02,0.07)

Supplementary Fig. 6 Mediation of intervention effects on change in whole grain diet quality by psychosocial constructs. Model coefficients a_1, a_2, and a_3 represent direct effects of the intervention on the psychosocial constructs. Model coefficients b_1, b_2, and b_3 represent direct effects of the psychosocial constructs on change in whole grain quality. Model coefficient c' represents the indirect effect of the psychosocial constructs on whole grain diet quality.

Mediation of Solid Fats, Alcoholic Beverages, and Added Sugars (SoFAAS) Diet Quality

a_1:pro = -0.12 (-0.60,0.37)

Decisional balance

b_1:pro = -0.14 (-0.46,0.18)

a_2 = -0.21 (-0.89,0.46)

Self-efficacy

b_2 = 0.30 (0.07,0.52)

Intervention

Change in SoFAAS diet quality

c' = -0.11 (-0.45,0.19)

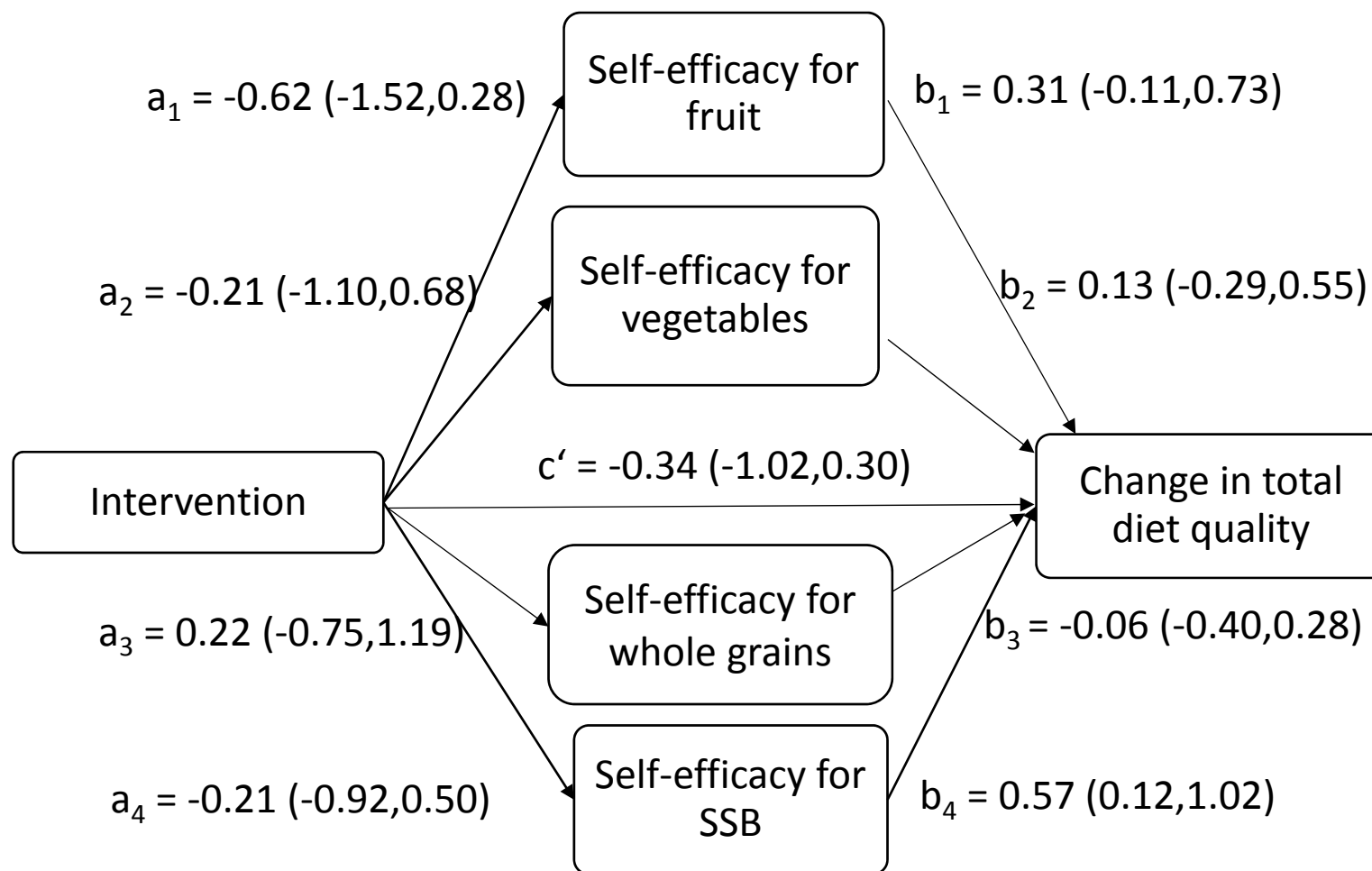a_3 = 0.96 (0.08,1.83)

Social support

b_3 = -0.06 (-0.24,0.11)

Supplementary Fig. 7 Mediation of intervention effects on change in SoFAAS diet quality by psychosocial constructs. Model coefficients a_1, a_2, and a_3 represent direct effects of the intervention on the psychosocial constructs. Model coefficients b_1, b_2, and b_3 represent direct effects of the psychosocial constructs on change in SoFAAS quality. Model coefficient c' represents the indirect effect of the psychosocial constructs on SoFAAS diet quality.

Mediation of Total Diet Quality by Decisional Balance

a_1:pro = -0.29 (-1.30,0.71)
a_1:con = 0.54 (-0.50,1.59)

Decisional balance for fruit

b_1:pro = 0.40 (-0.27,1.08)
b_1:con = 0.11 (-0.34,0.55)

a_2:pro = -0.24 (-1.23,0.74)
a_2:con = 0.79 (-0.24,1.82)

Decisional balance for vegetables

b_2:pro = 0.01 (-0.79,0.77)
b_2:con = 0.16 (-0.33,0.64)

Intervention

c' = 0.47 (-0.55,1.74)

Change in total diet quality

a_3:pro = -0.05 (-1.00,0.90)
a_3:con = 1.28 (0.36,2.20)

Decisional balance for whole grains

b_3:pro = 0.25 (-0.52,1.01)
b_3:con = -0.06 (-0.58,0.46)

a_4:pro = 0.01 (-0.61,0.63)

Decisional balance for SSB

b_4:pro = 0.01 (-0.72,0.74)

Supplementary Fig. 8 Mediation of intervention effects on change in total diet quality by decisional balance. Model coefficients a_1, a_2, and a_3 represent direct effects of the intervention on the psychosocial constructs. Model coefficients b_1, b_2, and b_3 represent direct effects of decisional balance on change in total diet quality. Model coefficient c' represents the indirect effect of decisional balance on total diet quality.
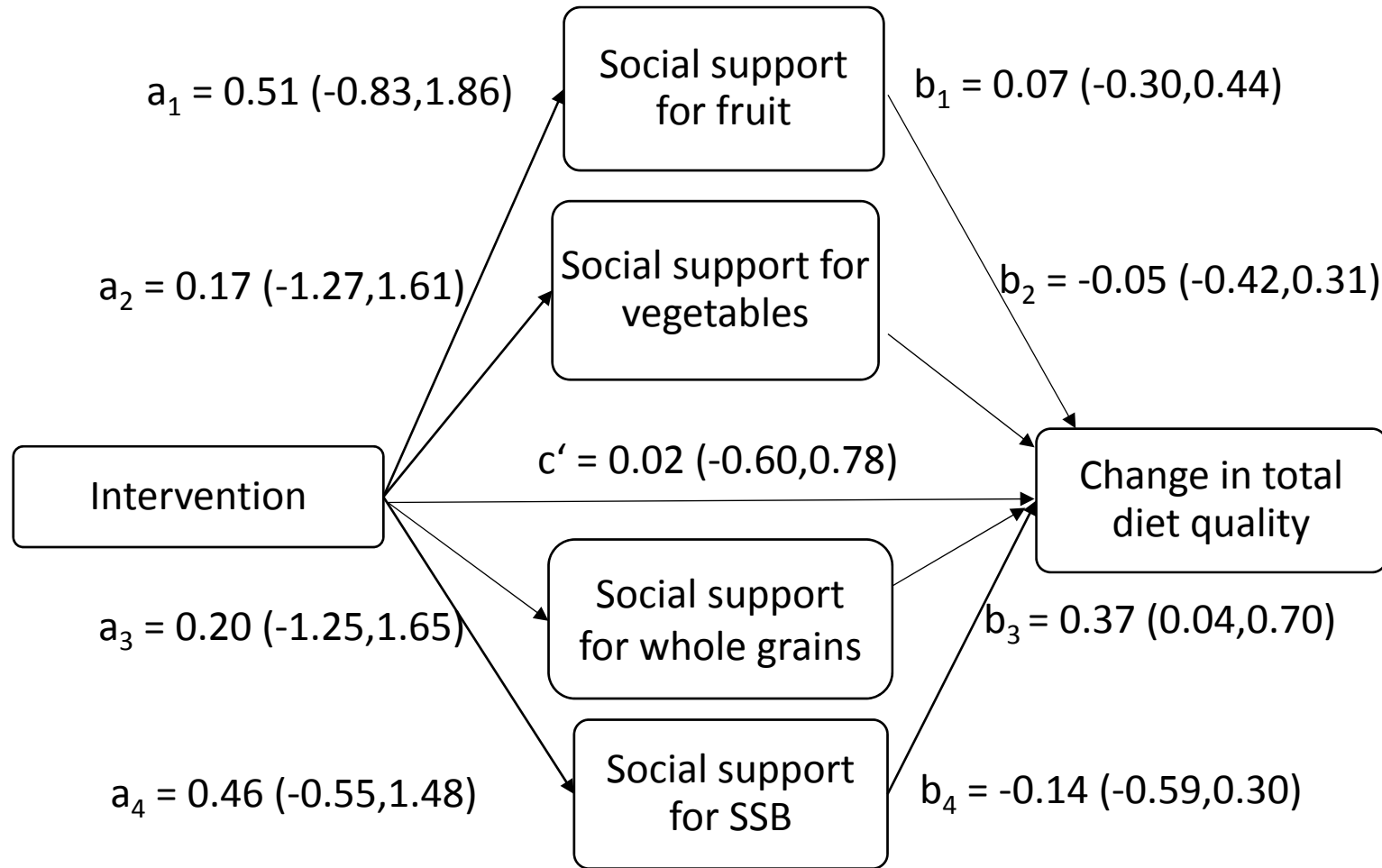
Mediation of Total Diet Quality by Self-Efficacy

$a_1 = -0.62$ (-1.52,0.28)

Self-efficacy for fruit

$b_1 = 0.31$ (-0.11,0.73)

$a_2 = -0.21$ (-1.10,0.68)

Self-efficacy for vegetables

$b_2 = 0.13$ (-0.29,0.55)

$c' = -0.34$ (-1.02,0.30)

Intervention

Change in total diet quality

$a_3 = 0.22$ (-0.75,1.19)

Self-efficacy for whole grains

$b_3 = -0.06$ (-0.40,0.28)

$a_4 = -0.21$ (-0.92,0.50)

Self-efficacy for SSB

$b_4 = 0.57$ (0.12,1.02)

Supplementary Fig. 9 Mediation of intervention effects on change in total diet quality by self-efficacy. Model coefficients a_1, a_2, and a_3 represent direct effects of the intervention on self-efficacy. Model coefficients b_1, b_2, and b_3 represent direct effects of self-efficacy on change in total quality. Model coefficient c' represents the indirect effect of self-efficacy on total diet quality.
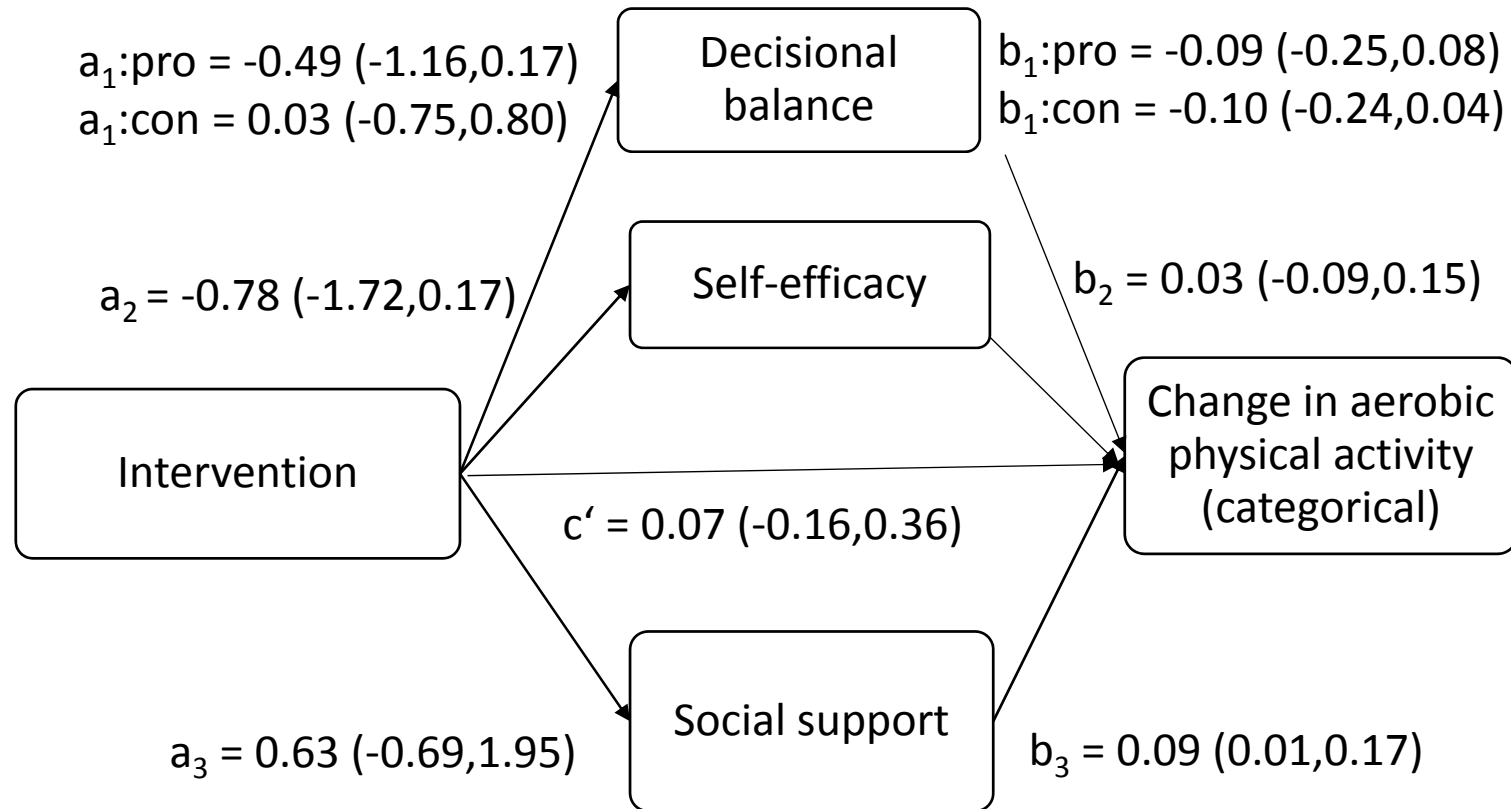
Mediation of Total Diet Quality by Social Support

Supplementary Fig. 10 Mediation of intervention effects on change in total diet quality by social support. Model coefficients a_1, a_2, and a_3 represent direct effects of the intervention on social support. Model coefficients b_1, b_2, and b_3 represent direct effects of social support on change in total quality. Model coefficient c' represents the indirect effect of social support on total diet quality.
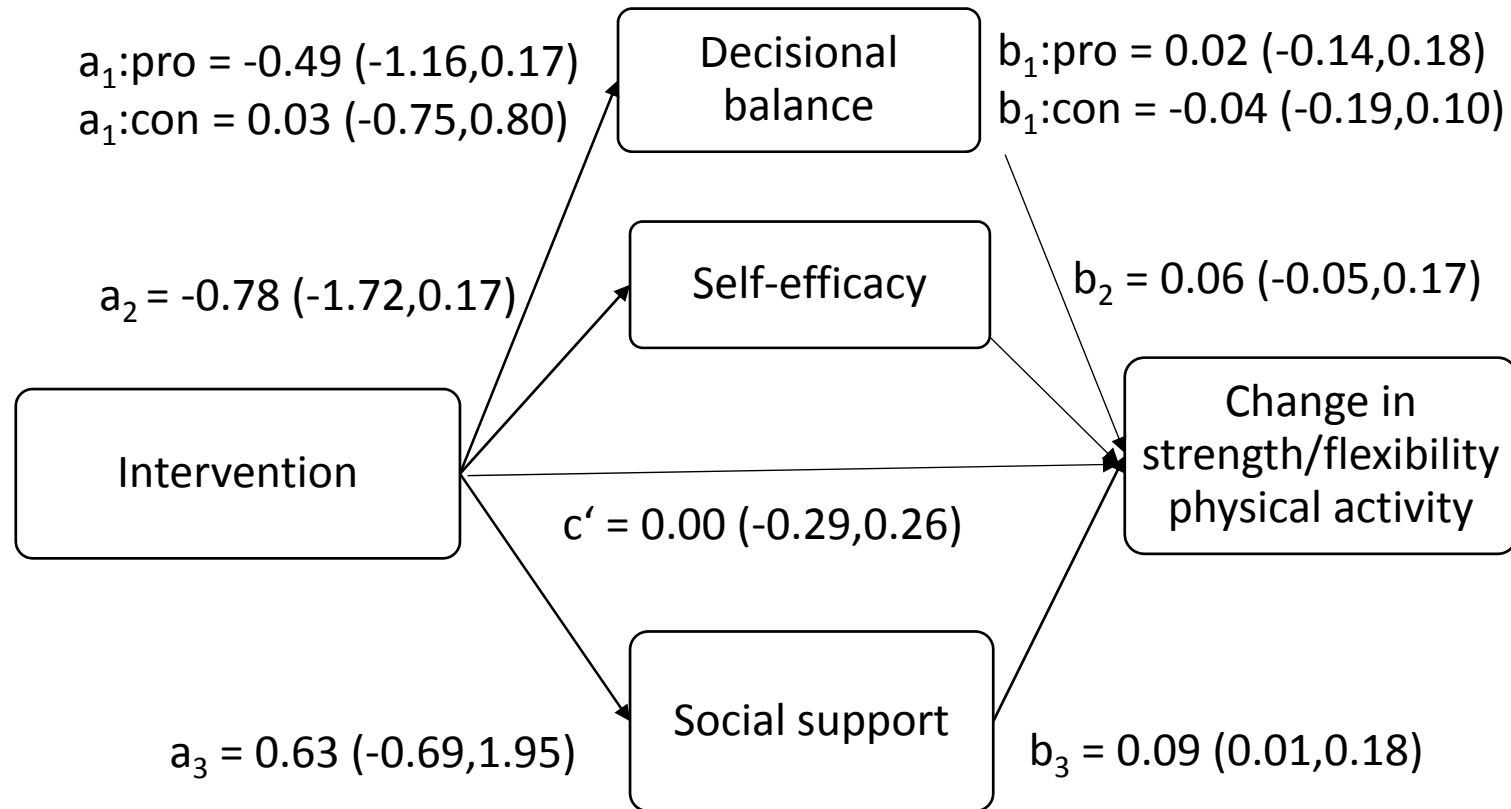
Mediation of Aerobic Physical Activity (continuous form)
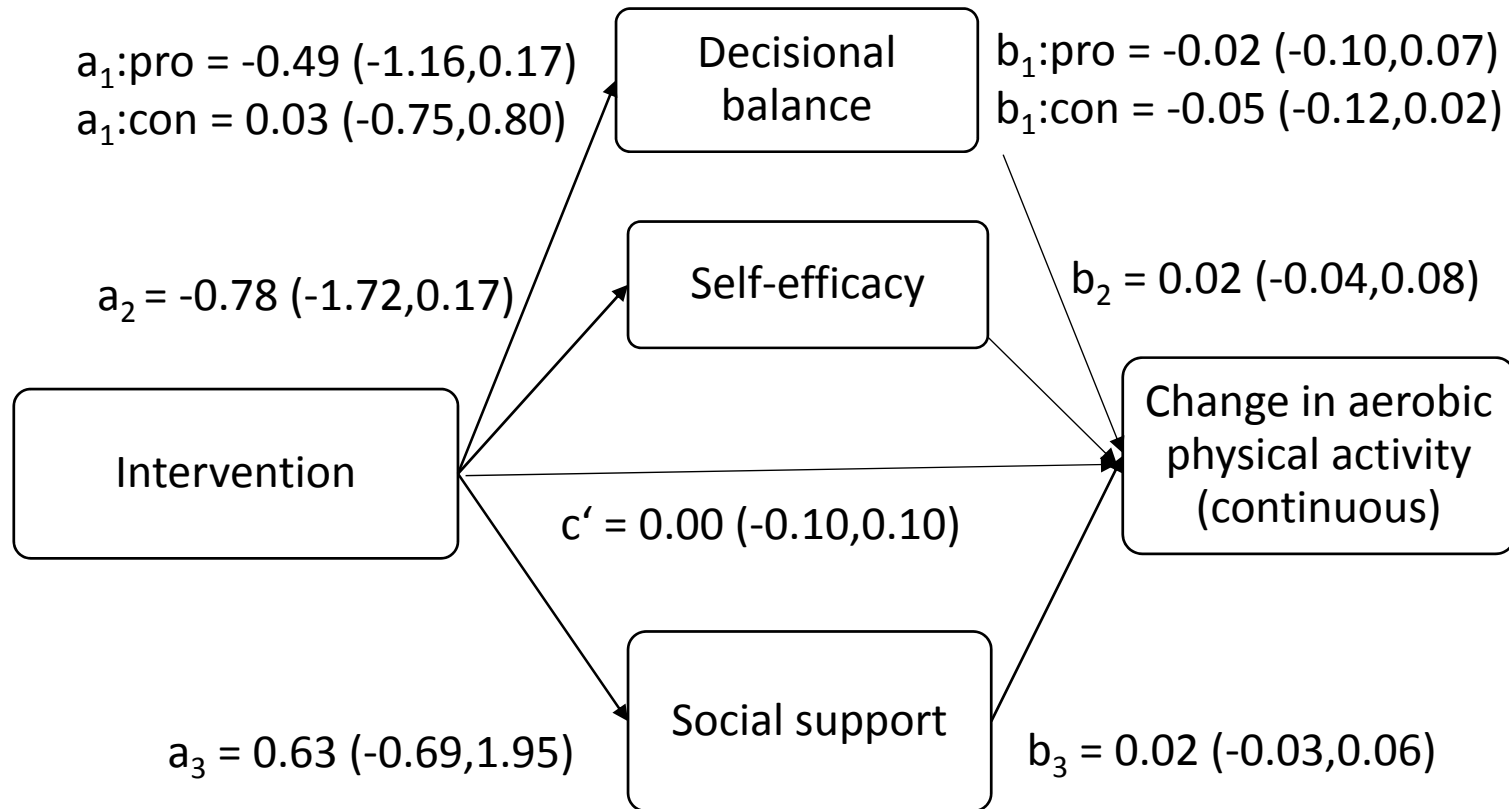
Supplementary Fig. 11 Mediation of intervention effects on change aerobic physical activity by the psychosocial constructs. Model coefficients a_1, a_2, and a_3 represent direct effects of the intervention on the psychosocial constructs. Model coefficients b_1, b_2, and b_3 represent direct effects of the psychosocial constructs on change in aerobic physical activity. Model coefficient c' represents the indirect effect of the psychosocial constructs on aerobic physical activity.

Mediation of Aerobic Physical Activity (suboptimal vs. optimal)

a_1:pro = -0.49 (-1.16,0.17)
a_1:con = 0.03 (-0.75,0.80)

Decisional balance

b_1:pro = -0.09 (-0.25,0.08)
b_1:con = -0.10 (-0.24,0.04)

a_2 = -0.78 (-1.72,0.17)

Self-efficacy

b_2 = 0.03 (-0.09,0.15)

Intervention

Change in aerobic physical activity (categorical)

c' = 0.07 (-0.16,0.36)

Social support

a_3 = 0.63 (-0.69,1.95)

b_3 = 0.09 (0.01,0.17)

Supplementary Fig. 12 Mediation of intervention effects on change aerobic physical activity by the psychosocial constructs. Model coefficients a_1, a_2, and a_3 represent direct effects of the intervention on the psychosocial constructs. Model coefficients b_1, b_2, and b_3 represent direct effects of the psychosocial constructs on change in aerobic physical activity. Model coefficient c' represents the indirect effect of the psychosocial constructs on aerobic physical activity.

Mediation of Strength/Flexibility Physical Activity

a_1:pro = -0.49 (-1.16,0.17)
a_1:con = 0.03 (-0.75,0.80)

Decisional balance

b_1:pro = 0.02 (-0.14,0.18)
b_1:con = -0.04 (-0.19,0.10)

a_2 = -0.78 (-1.72,0.17)

Self-efficacy

b_2 = 0.06 (-0.05,0.17)

Intervention

Change in strength/flexibility physical activity

$c' = 0.00$ (-0.29,0.26)

a_3 = 0.63 (-0.69,1.95)

Social support

b_3 = 0.09 (0.01,0.18)

Supplementary Fig. 13 Mediation of intervention effects on change strength/flexibility physical activity by the psychosocial constructs. Model coefficients a_1, a_2, and a_3 represent direct effects of the intervention on the psychosocial constructs. Model coefficients b_1, b_2, and b_3 represent direct effects of the psychosocial constructs on change in strength/flexibility physical activity. Model coefficient c' represents the indirect effect of the psychosocial constructs on strength/flexibility physical activity.