Supplemental Materials

Table of Contents

Table of Tables

Table of Figures

Methods

Details about the Downdog app. The HIIT workout app includes >1,000 activities that require no weights or other instrumentation. At the start of each workout session, users can choose the percent of the workout that is aerobic vs. resistance training, difficulty level, type of program (e.g. Tabata, circuit training), length of session (1 min to 90min), warmup/cooldown length, interval/recovery period length, music style, and narrator's voice. The Yoga workout app includes >1,400 yoga poses, and participants can select different types of yoga practices (e.g. Ashtanga, Hatha), difficulty levels, length (5min to 90min), pace, music style, and voice. Following selection of these features in either app, a video is streamed together from the library, providing opportunities for a novel configuration each workout.

Godin Leisure Time Exercise Questionnaire. All participants completed the Godin Leisure Time Exercise Questionnaire (Courneya et al., 2004; Godin & Shephard, 1985) on a weekly basis, and indicated number and duration of light, moderate, and vigorous exercise sessions. Consistent with Courneya et al. (2004), total number of minutes of MVPA were tabulated for each participant by multiplying the number of sessions and minutes of moderate exercise and multiplying the number of sessions and minutes of vigorous exercise, and summing these two values. Consistent with recommendations by others (Tabachnick & Fidell, 2013; Wierts et al., in press), weekly out of range values ($\geq$ 25 moderate and vigorous exercise sessions) and outliers with Z scores above 3.29 were removed.

Statistical Approach

Quadratic latent growth models. For the full sample quadratic latent growth models, we first conducted an unconditional growth model to estimate intercept (I), slope (S), and quadratic (Q)

2

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Br J Sports Med

terms. Next, we included three dummy-coded variables for the active groups, with WLC set as the comparator, to test the prespecified treatment effects of each active group on I, S, and Q.

Statistical models for quadratic latent growth model. The equations of the conditional quadratic latent growth model are provided as follows.

$$Y_{ti} = I_i + S_i * TIME_t + Q_i * TIME_t^2 + \varepsilon_{ti}$$

$$I_i = b_{00} + b_{01}G1 + b_{02}G2 + b_{03}G3 + \varsigma_{0i}$$

$$S_i = b_{10} + b_{11}G1 + b_{12}G2 + b_{13}G3 + \varsigma_{1i}$$

$$Q_i = b_{20} + b_{21}G1 + b_{22}G2 + b_{23}G3 + \varsigma_{1i}$$

where Y_{ti} denotes the outcome for each individual participant ($i = 1, 2, …, n$) at each time point ($t = 0, 1, 2, …, 6$), $TIME_t$ denotes time scores (i.e., 0, 1, …, 6), I_i refers to the latent intercept factor, S_i refers to the latent linear slope factor, Q_i refers to the latent quadratic slope factor, the regression coefficients for treatment conditions (G1, G2, & G3) are denoted using b, ε_{ti} denotes the individual residuals, and ς_{0i}, ς_{1i}, and ς_{1i} denote the corresponding residuals for the latent growth factors (I_i, S_i, & Q_i).

Cohen's *d.* The general formula of the effect size measure is Cohen's d = (b*duration)/SD where b denotes regression coefficient(s) of the treatment condition, duration depends on the number of weeks for a particular time point, and SD is calculated as the sum of all the corresponding variance components.

Model fit indices. Three commonly used model fit indices were used to ascertain model fit, namely a comparative fit index (CFI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). The criteria for evaluating model fit were designated with CFI values >0.90, and RMSEA and SRMR values <.08.[32,33]

Imputation

3

Random forest imputation was used to impute weekly Center for Epidemiologic Studies

Depression (CESD) item responses when data were missing for one or more responses to the

CESD for those participants who had completed some survey data on that given week (Table S1,

Non-Completely Missing Survey). Imputation was done by taking the data for each week and

splitting it into those with surveys and those without. For those with surveys, any items on the

CESD with missing data were imputed based on all other participant data from all weeks. Once

imputation was complete, the data were rejoined with the data of those without surveys that

week. This process was then repeated for each subsequent week. On occasions in which

participants did not submit a completed weekly survey (Table S1, Completely Missing Surveys),

no imputation was completed since the statistical approach used can handle missing data.

Demographic Data Coding

Several of the demographic variables were group together for ease of communication in tables.

This was done for income (Table S3), employment (Table S4), education (Table S5), cultural

background (Table S6) and marital status (Table S7).

References not Included in the Main Manuscript

Courneya, K. S., Jones, L. W., Rhodes, R. E., & Blanchard, C. M. (2004). Effects of Different

Combinations of Intensity Categories on Self-Reported Exercise. *Research Quarterly for Exercise and Sport*, *75*(4), 429–433. https://doi.org/10.1080/02701367.2004.10609176

Godin, G., & Shephard, R. J. (1985). A simple method to assess exercise behavior in the

community. *Canadian Journal of Applied Sport Sciences. Journal Canadien Des Sciences Appliquees Au Sport*, *10*(3), 141–146.

Tabachnick, B. G., & Fidell, L. S. (2013). *Using Multivariate Statistics* (6th editio). Pearson.

Wierts, C., Zumbo, B., Rhodes, R. E., Faulkner, G. E., & Beauchamp, M. R. (in press). An

4

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Br J Sports Med

examination of Dweck's psychological needs model in relation to exercise-related well-

being. *Journal of Sport and Exercise Psychology*, 1–12. https://doi.org/10.1123/jsep.2021-

0026

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Br J Sports Med

Mplus Code

All Participants Sample, Including Treatment Groups

```
VARIABLE: NAMES ARE id cond g1 g2 g3 male age

            CESD0 CESD1 CESD2 CESD3 CESD4 CESD5 CESD6 CESD12;

    MISSING=ALL(999);

    USEVARIABLES ARE g1 g2 g3

            CESD0 CESD1 CESD2 CESD3 CESD4 CESD5 CESD6;

ANALYSIS: ESTIMATOR = MLR;

        STITERATIONS=20000;

        ITERATION = 40000;



    MODEL:

        i s q | CESD0@0  CESD1@1  CESD2@2 CESD3@3 CESD4@4 CESD5@5 CESD6@6;

        i s q ON g1 g2 g3;



        s ON g1 (bs1);

        s ON g2 (bs2);

        s ON g3 (bs3);

        q ON g1 (bq1);

        q ON g2 (bq2);

        q ON g3 (bq3);

        i(v0);

        CESD0 - CESD6 (r0-r6);
```

6

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Br J Sports Med

MODEL CONSTRAINT:

NEW(g1dt1 g1dt2 g1dt3 g1dt4 g1dt5 g1dt6);

g1dt1 = (bs1*1 + bq1*1)/sqrt(v0+r0/2+r1/2);

g1dt2 = (bs1*2 + bq1*4)/sqrt(v0+r0/3+r1/3+r2/3);

g1dt3 = (bs1*3 + bq1*9)/sqrt(v0+r0/4+r1/4+r2/4+r3/4);

g1dt4 = (bs1*4 + bq1*16)/sqrt(v0+r0/5+r1/5+r2/5+r3/5+r4/5);

g1dt5 = (bs1*5 + bq1*25)/sqrt(v0+r0/6+r1/6+r2/6+r3/5 +r4/6+r5/6);

g1dt6 = (bs1*6 + bq1*36)/sqrt(v0+r0/7+r1/7+r2/7+r3/7 +r4/7+r5/7+r6/7);

NEW(g2dt1 g2dt2 g2dt3 g2dt4 g2dt5 g2dt6);

g2dt1 = (bs2*1 + bq2*1)/sqrt(v0+r0/2+r1/2);

g2dt2 = (bs2*2 + bq2*4)/sqrt(v0+r0/3+r1/3+r2/3);

g2dt3 = (bs2*3 + bq2*9)/sqrt(v0+r0/4+r1/4+r2/4+r3/4);

g2dt4 = (bs2*4 + bq2*16)/sqrt(v0+r0/5+r1/5+r2/5+r3/5+r4/5);

g2dt5 = (bs2*5 + bq2*25)/sqrt(v0+r0/6+r1/6+r2/6+r3/5+r4/6+r5/6);

g2dt6 = (bs2*6 + bq2*36)/sqrt(v0+r0/7+r1/7+r2/7+r3/7+r4/7+r5/7+r6/7);

NEW(g3dt1 g3dt2 g3dt3 g3dt4 g3dt5 g3dt6);

g3dt1 = (bs3*1 + bq3*1)/sqrt(v0+r0/2+r1/2);

g3dt2 = (bs3*2 + bq3*4)/sqrt(v0+r0/3+r1/3+r2/3);

g3dt3 = (bs3*3 + bq3*9)/sqrt(v0+r0/4+r1/4+r2/4+r3/4);

g3dt4 = (bs3*4 + bq3*16)/sqrt(v0+r0/5+r1/5+r2/5+r3/5+r4/5);

7

g3dt5 = (bs3*5 + bq3*25)/sqrt(v0+r0/6+r1/6+r2/6+r3/5+r4/6+r5/6);

g3dt6 = (bs3*6 + bq3*36)/sqrt(v0+r0/7+r1/7+r2/7+r3/7+r4/7+r5/7+r6/7);

OUTPUT: SAMPSTAT CINTERVAL STANDARDIZED RESIDUAL MODINDICES (3.84);

High Depression Sample, Including Treatment Groups – Free Time Scores

VARIABLE: NAMES ARE id cond g1 g2 g3 male age

CESD0 CESD1 CESD2 CESD3 CESD4 CESD5 CESD6 CESD12;

MISSING=ALL(999);

USEVARIABLES ARE g1 g2 g3 CESD0 CESD1 CESD2 CESD3 CESD4 CESD5 CESD6;

ANALYSIS: ESTIMATOR = MLR;

STITERATIONS=5000;

ITERATION = 20000;

MODEL:

i s | CESD0@0 CESD1@1 CESD2* CESD3* CESD4* CESD5* CESD6*;

i s ON g1 g2 g3;

s ON g1 (bs1);

s ON g2 (bs2);

s ON g3 (bs3);

i(v0);

CESD1 - CESD6 (r1-r6);

CESD0@0;

CESD1 WITH CESD2-CESD4;

CESD2 WITH CESD3-CESD5;

9

CESD3 WITH CESD4-CESD6;

CESD4 WITH CESD5-CESD6;

CESD5 WITH CESD6;

MODEL CONSTRAINT:

NEW(g1dt1 g1dt2 g1dt3 g1dt4 g1dt5 g1dt6);

g1dt1 = (bs1*1)/sqrt(v0+r1);

g1dt2 = (bs1*2)/sqrt(v0+r1/2+r2/2);

g1dt3 = (bs1*3)/sqrt(v0+r1/3+r2/3+r3/3);

g1dt4 = (bs1*4)/sqrt(v0+r1/4+r2/4+r3/4+r4/4);

g1dt5 = (bs1*5)/sqrt(v0+r1/5+r2/5+r3/5+r4/5+r5/5);

g1dt6 = (bs1*6)/sqrt(v0+r1/6+r2/6+r3/6+r4/6+r5/6+r6/6);

NEW(g2dt1 g2dt2 g2dt3 g2dt4 g2dt5 g2dt6);

g2dt1 = (bs2*1)/sqrt(v0+r1);

g2dt2 = (bs2*2)/sqrt(v0+r1/2+r2/2);

g2dt3 = (bs2*3)/sqrt(v0+r1/3+r2/3+r3/3);

g2dt4 = (bs2*4)/sqrt(v0+r1/4+r2/4+r3/4+r4/4);

g2dt5 = (bs2*5)/sqrt(v0+r1/5+r2/5+r3/5+r4/5+r5/5);

g2dt6 = (bs2*6)/sqrt(v0+r1/6+r2/6+r3/6+r4/6+r5/6+r6/6);

NEW(g3dt1 g3dt2 g3dt3 g3dt4 g3dt5 g3dt6);

g3dt1 = (bs3*1)/sqrt(v0+r1);

10

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Br J Sports Med

g3dt2 = (bs3*2)/sqrt(v0+r1/2+r2/2);

g3dt3 = (bs3*3)/sqrt(v0+r1/3+r2/3+r3/3);

g3dt4 = (bs3*4)/sqrt(v0+r1/4+r2/4+r3/4+r4/4);

g3dt5 = (bs3*5)/sqrt(v0+r1/5+r2/5+r3/5+r4/5+r5/5);

g3dt6 = (bs3*6)/sqrt(v0+r1/6+r2/6+r3/6+r4/6+r5/6+r6/6);

OUTPUT: SAMPSTAT CINTERVAL STANDARDIZED RESIDUAL;

Tables

Table S1 - Missing Surveys at Item and Survey Levels.

Week	Non-missing Survey (All items complete)	Non-Completely Missing Survey (Missing >= 1 items)	Completely Missing Surveys
0	327	7	0
1	306	9	19
2	299	5	30
3	290	2	42
4	287	6	41
5	276	6	52
6	284	6	44

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Br J Sports Med

Table S2 - Fit Indices for the Primary SEM Models.

Measure	All Participants - Quadratic Time	High Depression – Free Time Scores
Root Mean Square Error of Approximation, Est. (.90CI)	0.049 (0.027, 0.069)	0.042 (0.000, 0.081)
CFI	0.983	0.991
Standardized Root Mean Square Residual	0.026	0.044

13

Table S3 - Income Grouping.

Income Values	Recoded
1 - 10,000 10,001 - 20,000 20,001 - 30,000 30,001 - 40,000	0 – 40,000
40,001 - 50,000, 50,001 - 60,000, 60,001 - 70,000, 70,001 - 80,000	40,001 – 80,000
80,001 - 90,000, 90,001 - 100,000, 100,001 - 110,000, 110,001 - 120,000	80,001 – 120,000
120,001 - 130,000, 130,001 - 140,000, 140,001 - 150,000, 150,001 - 160,000	120,001 – 160,000
160,001 - 170,000, 170,001 - 180,000, 180,001 - 190,000, 190,001 - 200,000, 200,001 - 210,000, 210,001 - 220,000,	160,000 +

14

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance
placed on this supplemental material which has been supplied by the author(s)

Br J Sports Med

220,001 - 230,000, 230,001 - 240,000, 240,001 - 250,000, 250,001+	
Do not know / prefer not to answer, [Missing]	No response

Table S4 - Employment Grouping.

Current Employment	Other (Text Response)	Coded Value
Other	Full time work with one furlough day due to covid	Full Time
Other	teacher in spring semester	Full Time
Other	Teacher summer vacation	Full Time
Working full-time		Full Time
Working full-time,Other	on summer vacation	Full Time
Working full-time,Self-employed		Full Time
Working full-time,Self-employed ,Other	I'm working full time at a company, but also self-employed teaching (Not full-time-self-employed)	Full Time
Homemaker		Not Working
Looking for work; unemployed		Not Working
Looking for work; unemployed,Homemaker		Not Working
Looking for work; unemployed,Other	housewife	Not Working
Looking for work; unemployed,Other	working - unpaid	Not Working
Looking for work; unemployed,Temporarily laid off		Not Working
Maternity or sick leave (volunteered)		Not Working
Other	Leave of absence	Not Working

Other	Self employed but no work available	Not Working
Other	Stay at home parent	Not Working
Self-employed ,Looking for work; unemployed,Permanently disabled (volunteered),Other	Home based business not in market due to covid	Not Working
Self-employed ,Temporarily laid off		Not Working
Temporarily laid off		Not Working
Temporarily laid off,Maternity or sick leave (volunteered)		Not Working
[Missing]		Other
Don't know/not sure		Other
Other	Will be laid off during this study	Other
Other		Other
Prefer not to say		Other
Self-employed		Other
Working part-time		Part Time
Working part-time,Homemaker		Part Time
Working part-time,Other	on CEWS	Part Time
Working part-time,Self-employed		Part Time
Working part-time,Self-employed ,Homemaker		Part Time
Full-time student		Student

Looking for work; unemployed,Full-time student		Student
Looking for work; unemployed,Part-time student		Student
Looking for work; unemployed,Temporarily laid off,Part-time student		Student
Part-time student		Student
Self-employed ,Full-time student		Student
Temporarily laid off,Full-time student		Student
Temporarily laid off,Part-time student		Student
Working full-time,Full-time student		Student
Working full-time,Part-time student		Student
Working part-time,Full-time student		Student
Working part-time,Full-time student,Other	Support from parents	Student
Working part-time,Part-time student		Student

Table S5 - Education Grouping.

Educational Status	Recoded
High school diploma or a high school equivalency certificate	High School or less
College, CEGEP or other non-university certificate or diploma (other than trades certificates or diplomas),	College, trade school or certificate
Trade certificate or diploma,	College, trade school or certificate
University certificate or diploma below the bachelor's level	College, trade school or certificate
Bachelor's degree (e.g. B.A., B.Sc., LL.B.)	Bachelor or equivalent
University certificate, diploma, degree above the bachelor's level	Postgraduate / professional training
Prefer not to answer,	No response
[Missing]	No response

Note: "Less than high school diploma or its equivalent" was an option, but no participant

selected it.

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance
placed on this supplemental material which has been supplied by the author(s)

Br J Sports Med

Table S6 - Cultural Background Grouping.

Cultural Background	Other (Text Response)	Coded Value
Chinese		Asian
Chinese,Filipino		Asian
Chinese,South East Asian (e.g., Vietnamese, Cambodian, Malaysian, Laotian, etc)		Asian
Filipino		Asian
Filipino,South East Asian (e.g., Vietnamese, Cambodian, Malaysian, Laotian, etc)		Asian
Japanese		Asian
Korean		Asian
Other - please specify	Taiwanese	Asian
South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc)		Asian
South East Asian (e.g., Vietnamese, Cambodian, Malaysian, Laotian, etc)		Asian
Aboriginal decent (e.g., North American Indian, Métis or Inuit (Eskimo))		Other
Aboriginal decent (e.g., North American Indian, Métis or Inuit (Eskimo)),Black (e.g., African, Haitian, Jamaican, Somali, etc)		Other
Aboriginal decent (e.g., North American Indian, Métis or Inuit (Eskimo)),White		Other

20

Arab		Other
Black (e.g., African, Haitian, Jamaican, Somali, etc)		Other
Latin American		Other
Other - please specify		Other
Other - please specify	european / mixed	Other
Other - please specify	Doesn't let you choose more than one. Aboriginal and European.	Other
Other - please specify	Afghan	Other
Other - please specify	Austrian	Other
South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc),Latin American		Other
West Asian (e.g., Iranian, Afghan, etc)		Other
White,Arab		Other
White,Chinese		Other
White,Chinese,South East Asian (e.g., Vietnamese, Cambodian, Malaysian, Laotian, etc)		Other
White,Filipino		Other
White,Japanese		Other
White,Latin American		Other
White,Other - please specify	Jewish	Other

21

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Br J Sports Med

White,Other - please specify	European	Other
White,Other - please specify	Ashkenazi Jewish	Other
White,Other - please specify	Scandinavian	Other
White,Other - please specify	Dutch	Other
White,South East Asian (e.g., Vietnamese, Cambodian, Malaysian, Laotian, etc)		Other
Other - please specify	Italian	White
Other - please specify	IRISH	White
White		White

Note: As cultural backgrounds were asked as check boxes, many participant selected multiple options, making it difficult to define groups. Therefore, participants were split into White, Asian and Other, as White and Asian participants made up a large majority of the sample.

Table S7 - Marital Status Groupings.

Marital Status	Recoded
Married	Married
Living common-law	Married
Separated	No Longer Married
Divorced	No Longer Married
Widowed	No Longer Married
Single, never married	Single
Prefer not to answer	Other
[Missing]	Other

Table S8 - Weekly Survey Response Rate, N (%), by Experimental Grouping.

	Week						
	0	**1**	**2**	**3**	**4**	**5**	**6**
WLC	83 (100%)	80 (96%)	77 (93%)	80 (96%)	76 (92%)	77 (93%)	74 (89%)
HIIT	82 (100%)	77 (94%)	76 (93%)	69 (84%)	72 (88%)	64 (78%)	68 (83%)
Yoga	86 (100%)	83 (97%)	76 (88%)	74 (86%)	76 (88%)	75 (87%)	67(78%)
HIIT+Yoga	83 (100%)	75 (90%)	75 (90%)	69 (83%)	69 (83%)	66 (80%)	84 (82%)

Table S9 – Average Number of Minutes of DownDog Exercises Completed by Week and

Experimental Group

Week	HIIT	Yoga	Combo
1	63.95 (29.73)	73.13 (43.43)	80.72 (48.48)
2	64.44 (35.03)	78.43 (46.70)	86.04 (53.80)
3	59.39 (35.49)	76.76 (53.98)	78.31 (45.19)
4	58.90 (36.08)	73.44 (59.71)	74.20 (55.49)
5	53.15 (36.85)	68.57 (50.81)	72.86 (56.29)
6	46.11 (39.02)	68.60 (57.62)	70.97 (62.29)

Table S10 – Weekly Average (SD) Minutes of Moderate-to-Vigorous Physical Activity (Not Including App Usage) for Each Group

Group	Week	Moderate	Vigorous	MVPA
Control	0	16.73 (33.25)	0.00 (0.00)	18.51 (34.53)
Control	1	40.71 (81)	7.49 (21.95)	49.04 (90.77)
Control	2	42.68 (63.32)	9.32 (29.21)	52.57 (72.50)
Control	3	44.32 (60.7)	4.34 (15.37)	47.15 (65.95)
Control	4	35.42 (48.19)	7.47 (21.26)	43.38 (57.89)
Control	5	44.17 (67.25)	6.1 (18.66)	49.91 (72.59)
Control	6	71.67 (83.48)	6.16 (16.89)	74.52 (81.26)
HIIT	0	19.72 (34.26)	0.30 (2.46)	19.06 (34.79)
HIIT	1	40.00 (52.03)	6.38 (19.11)	48.49 (60.39)
HIIT	2	45.36 (59.22)	15.40 (35.00)	61.88 (74.94)
HIIT	3	45.17 (66.58)	12.71 (26.82)	59.12 (79.29)
HIIT	4	59.25 (82.2)	14.32 (31.79)	71.29 (89.25)
HIIT	5	41.86 (55.51)	15.26 (31.00)	57.02 (73.43)
HIIT	6	49.33 (80.68)	13.71 (29.41)	59.69 (88.17)
Yoga	0	26.86 (38.26)	1.01 (4.25)	24.57 (36.49)
Yoga	1	56.88 (89.41)	11.46 (31.36)	68.66 (107.56)
Yoga	2	44.42 (58.8)	7.17 (21.77)	52.58 (67.24)
Yoga	3	47.84 (60.56)	14.18 (25.82)	58.15 (69.24)
Yoga	4	56.94 (68.03)	16.54 (33.89)	73.38 (81.59)
Yoga	5	73.46 (106.01)	11.42 (24.41)	85.07 (116.04)

26

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance
placed on this supplemental material which has been supplied by the author(s)

Br J Sports Med

Yoga	6	51.58 (72.44)	15.91 (30.62)	66.75 (92.63)
Combo	0	18.87 (35.98)	0.99 (4.11)	20.46 (37.72)
Combo	1	46.15 (97.01)	10.73 (29.82)	58.07 (103.51)
Combo	2	32.46 (45.73)	10.76 (27.46)	43.43 (54.73)
Combo	3	56.52 (70.15)	13.52 (25.7)	67.59 (74.84)
Combo	4	49.41 (68.91)	17.70 (33.67)	65.78 (85.26)
Combo	5	66.25 (99.03)	10.79 (26.15)	75.20 (112.14)
Combo	6	53.49 (74.67)	12.66 (29.28)	59.75 (78.46)

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Br J Sports Med

Table S11 - Estimates for Trajectories for HIIT (A) and Comparisons with WLC, Yoga and HIIT+Yoga Groups (B1-3).

	Estimate	**SE**	**95% CI**
A. Estimates, SE, and 95% CI for intercept (I; estimated baseline), slope (S; time), and quadratic (Q; time^2) terms for HIIT			
I	**10.60**	**0.64**	**9.34, 11.86**
S	**-0.93**	**0.27**	**-1.45, -0.40**
Q	**0.10**	**0.04**	**0.03, 0.18**
B. Estimates for differences between each group and WLC			
B1. Differences in estimates for I			
WLC vs HIIT	-0.26	0.87	-1.97, 1.46
Yoga vs HIIT	-0.59	0.89	-2.34, 1.16
HIIT+Yoga vs HIIT	-1.53	0.87	-3.23, 0.17
B2. Differences in estimates for S			
WLC vs HIIT	**0.77**	**0.38**	**0.04, 1.51**
Yoga vs HIIT	0.07	0.40	-0.72, 0.86
HIIT+Yoga vs HIIT	-0.14	0.40	--0.93 , 0.65
B3. Differences in estimates for Q			
WLC vs HIIT	-0.11	0.06	-0.22, 0.00
Yoga vs HIIT	-0.03	0.06	-0.15, 0.08
HIIT+Yoga vs HIIT	0.01	0.06	-0.11, 0.12

Note: Results from the SEM. model estimating intercept, slope, and quadratic term for HIIT group (Section A) and comparisons of these estimates with those of the three other groups (WLC, Yoga, HIIT+Yoga; Section B). Bold text denotes p < .05

28

Table S12 - Estimates for Trajectories for HIIT+Yoga (A) and Comparisons with WLC, HIIT and Yoga Groups (B1-3).

	Estimate	**SE**	**95% CI**
A. Estimates, SE, and 95% CI for intercept (I; estimated baseline), slope (S; time), and quadratic (Q; time^2) terms for HIIT+Yoga			
I	**9.07**	**0.58**	**7.93, 10.20**
S	**-1.07**	**0.30**	**-1.65, -0.48**
Q	**0.11**	**0.05**	**0.02, 0.19**
B. Estimates for differences between each group and WLC			
B1. Differences in estimates for I			
WLC vs HIIT+Yoga	1.27	0.83	-0.35, 2.89
HIIT vs HIIT+Yoga	1.53	0.87	-0.17, 3.23
Yoga vs HIIT+Yoga	0.94	0.85	-0.72, 2.59
B2. Differences in estimates for S			
WLC vs HIIT+Yoga	**0.92**	**0.39**	**0.14, 1.69**
HIIT vs HIIT+Yoga	0.14	0.40	-0.65, 0.93
Yoga vs HIIT+Yoga	0.21	0.42	-0.62, 1.04
B3. Differences in estimates for Q			
WLC vs HIIT+Yoga	-0.11	0.06	-0.23, 0.01
HIIT vs HIIT+Yoga	-0.01	0.06	-0.12, 0.11
Yoga vs HIIT+Yoga	-0.04	0.06	-0.16, 0.09

Note: Results from the SEM model estimating intercept, slope, and quadratic term for HIIT+Yoga group (Section A) and comparisons of these estimates with those of the three other groups (WLC, HIIT, Yoga; Section B). Bold text denotes p < .05

29

Table S13 - Estimates for Trajectories for Yoga (A) and Comparisons with WLC, HIIT and HIIT+Yoga Groups (B1-3).

	Estimate	**SE**	**95% CI**
A. Estimates, SE, and 95% CI for intercept (I; estimated baseline), slope (S; time), and quadratic (Q; time^2) terms for Yoga			
I	**10.01**	**0.62**	**8.78, 11.23**
S	**-0.86**	**0.31**	**-1.45, -0.26**
Q	0.07	0.05	-0.02, 0.16
B. Estimates for differences between each group and WLC			
B1. Differences in estimates for I			
WLC vs Yoga	0.34	0.86	-1.34, 2.02
HIIT vs Yoga	0.59	0.89	-1.16, 2.34
HIIT+Yoga vs Yoga	-0.94	0.85	-2.59, 0.72
B2. Differences in estimates for S			
WLC vs Yoga	0.70	0.40	-0.08, 1.49
HIIT vs Yoga	-0.07	0.40	-0.86, 0.72
HIIT+Yoga vs Yoga	-0.21	0.422	-1.04, 0.62
B3. Differences in estimates for Q			
WLC vs Yoga	-0.08	0.06	-0.20, 0.05
HIIT vs Yoga	0.03	0.06	-0.08, 0.15
HIIT+Yoga vs Yoga	0.04	0.06	-0.09, 0.16

Note: Results from the SEM. model estimating intercept, slope, and quadratic term for HIIT group (Section A) and comparisons of these estimates with those of the three other groups (WLC, HIIT, HIIT+Yoga; Section B). Bold text denotes p < .05

30

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance
placed on this supplemental material which has been supplied by the author(s)

Br J Sports Med

Table S14 - Effect Sizes for Model with all Individuals and Model including only those with High Depressive Symptoms at Baseline.

All Participants

Time	HIIT		Yoga		HIIT+Yoga	
	Effect Size	**95% CI**	**Effect Size**	**95% CI**	**Effect Size**	**95% CI**
Week 1	-0.12	[-0.23, -0.01]	-0.11	[-0.23, 0.01]	-0.14	[-0.26, -0.03]
Week 2	-0.20	[-0.39, -0.01]	-0.20	[-0.39, 0.00]	-0.24	[-0.44, -0.05]
Week 3	-0.24	[-0.48, 0.00]	-0.25	[-0.49, -0.02]	-0.31	[-0.54, -0.07]
Week 4	-0.24	[-0.50, 0.02]	-0.28	[-0.53, -0.04]	-0.33	[-0.58, -0.08]
Week 5	-0.21	[-0.48, 0.06]	-0.29	[-0.52, -0.06]	-0.31	[-0.55, -0.07]
Week 6	-0.14	[-0.44, 0.16]	-0.27	[-0.51, -0.04]	-0.25	[-0.51, 0.00]

Subpopulation with High Depressive Symptoms

Time	HIIT		Yoga		HIIT+Yoga	
	Effect Size	**95% CI**	**Effect Size**	**95% CI**	**Effect Size**	**95% CI**
Week 1	-0.41	[-0.69, -0.14]	-0.40	[-0.67, -0.14]	-0.44	[-0.71, -0.18]
Week 2	-0.83	[-1.38, -0.28]	-0.80	[-1.33, -0.28]	-0.89	[-1.43, -0.35]

Week 3	-1.20	[-2.01, -0.40]	-1.17	[-1.94, -0.39]	-1.29	[-2.07, -0.51]
Week 4	-1.57	[-2.62, -0.52]	-1.52	[-2.53, -0.51]	-1.68	[-2.70, -0.67]
Week 5	-1.94	[-3.21, -0.66]	-1.88	[-3.11, -0.65]	-2.08	[-3.32, -0.84]
Week 6	-2.34	[-3.87, -0.81]	-2.27	[-3.74, -0.80]	-2.51	[-4.00, -1.01]

Note: All effect sizes are compared to the WLC group.

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Br J Sports Med

Table S15 - Estimates for Trajectories for WLC (A) and Comparisons with WLC, HIIT and

HIIT+Yoga Groups (B1 & B2) in Participants with High Levels of Depression Symptoms at

Baseline.

	Estimate	**SE**	**95% CI**
A. Estimates, SE, and 95% CI for intercept (I) and slope (S) terms for WLC			
I	**14.41**	**0.56**	**13.32, 15.51**
S	**-1.18**	**0.44**	**-2.05, -0.31**
B. Estimates for differences between each group and WLC			
B1. Differences in estimates for I			
HIIT vs WLC	1.04	0.85	-0.62, 2.70
Yoga vs WLC	0.52	0.81	-1.06, 2.10
HIIT+Yoga vs WLC	-0.26	0.83	-1.89, 1.38
B2. Differences in estimates for S			
HIIT vs WLC	**-2.06**	**0.68**	**-3.39, -0.73**
Yoga vs WLC	**-2.00**	**0.65**	**-3.28, -0.72**
HIIT+Yoga vs WLC	**-2.21**	**0.67**	**-3.52, -0.90**

Note: Results from the SEM model, including only those with high levels of depressive symptoms

at baseline, estimating intercept and slope for waitlist control (Section A) and comparisons of

these estimates with those of the three active groups (HIIT, Yoga, HIIT+Yoga; Section B). Bold

text denotes p < .05

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Br J Sports Med

Figures

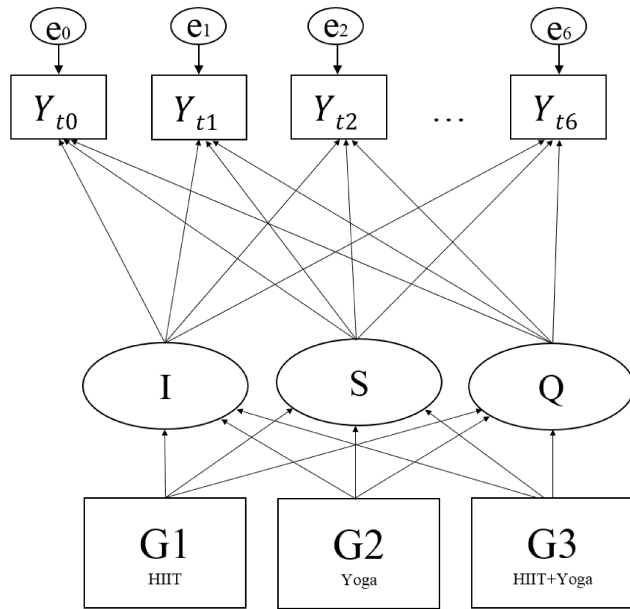*Figure S1 - SEM Path Diagram for Model including all Participants.*

Figure S2 - SEM Path Diagram for Model including Participants with High Baseline Depressive Symptoms.