

1 **Orthorexia nervosa in yoga practitioners: relationship with personality, attitudes about**
2 **appearance, and yoga engagement**

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21 **Abstract**

22 *Purpose* Disordered eating symptoms and a high prevalence of orthorexia nervosa can be found
23 in yoga practitioners. Given that yoga is increasingly used as a complementary treatment for
24 eating disorders (ED), understanding the relationship between yoga practice and the
25 development of disordered eating is crucial to guide treatment recommendations. The goal of
26 this work is, therefore, to study the relationships between orthorexia nervosa (ON) and potential
27 risk factors for ON, in an international sample of experienced yoga practitioners.

28 *Method* An online questionnaire that included several psychometric instruments was responded
29 by 469 yoga practitioners. Instruments used were the Teruel Orthorexia Scale, Yoga Immersion
30 Scale, Passion Scale, Frost Multidimensional Perfectionism Scale, self-discipline scale of NEO-
31 PI-R, Drive for Thinness scale of EDI, and Beliefs about Appearance Scale. Descriptive
32 statistics, correlational analysis and multiple regression were used to evaluate relationships
33 between ON and the other variables.

34 *Results* The main predictors of orthorexia nervosa were the drive for thinness and a healthy
35 orthorexia, suggesting that, like in anorexia and bulimia, orthorexic individuals are also
36 concerned with food quantity and physical appearance, rather than just food quality.

37 *Conclusions* The potential effects of yoga on eating behaviours and attitudes of long-term
38 practitioners, particularly the high prevalence of orthorexia nervosa and the concern for
39 physical appearance, should be taken into consideration when using yoga as prevention or
40 treatment for eating disorders.

41 **Level of evidence** V, descriptive cross-sectional study.

42 **Keywords:** orthorexia nervosa; yoga; risk factors; perfectionism; body image.

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44 **Introduction**

45 Several disordered eating behaviours and attitudes have been associated with yoga
46 practice. Orthorexia nervosa (ON), a fixation on eating proper food [1], has been observed in
47 yoga practitioners [2, 3], and, interestingly, the first description of ON appeared on the non-
48 scientific Yoga Journal [1]. In addition to the pathological ON, a healthy, non-pathological
49 interest in diet designated by “healthy orthorexia” was recently conceptualised and
50 operationalised [4]. ON sets in when there is an intensification of the pursuit for “clean” eating
51 into an unhealthy obsession, with obsessive thinking about food, compulsive behaviours, self-
52 punishment and escalating dietary restriction [5], leading to nutritional deficits, affective
53 problems and social isolation [6]. The prevalence of ON seems to be higher in individuals with
54 health-related occupations [7], including yoga practitioners [3]. In addition, several personality
55 traits, such as perfectionism [4, 8], and neuroticism [9] are significantly related to ON.
56 Perfectionism in particular is a well-established risk factor for eating disorders [10, 11], mainly
57 for the development of full-blown ED such as anorexia nervosa and bulimia nervosa [12, 13].
58 Other risk factors for ON include eating-related factors such as being vegetarian or vegan,
59 lifestyle factors, such as exercise engagement or social media use, among others (for a review,
60 see [7]).

61 Understanding the relationships between yoga practice and ED-related behaviours and
62 attitudes is critical to establish yoga as a valuable complementary practice for ED, particularly
63 given its increasing use and acceptance by clinicians and patients [14]. Due to its focus on the
64 enhancement of the mind-body connection, yoga may potentially facilitate the acceptance of
65 one’s body, which is a critical issue for the prevention and treatment of ED [14–16]. Some
66 studies support the use of yoga for ED prevention, as results suggest that yoga practitioners are
67 at a lower risk of developing eating disorders, given that they present fewer disordered eating
68 symptoms, higher positive body image, and higher body satisfaction [17–19]. However, other

69 studies indicate that the prevalence of dysfunctional eating behaviours such as orthorexia
70 nervosa is higher in yoga practitioners [3, 20], and that a high dosage of yoga practice may be
71 associated with a higher occurrence of ED-related behaviours [21]. Therefore, if a long-term,
72 well-established yoga practice may be associated with or facilitate the development of
73 disordered eating, yoga interventions and treatment recommendations must be reframed, well
74 guided and closely monitored. In this context, the main goal of this work is to evaluate the
75 relationships between orthorexia nervosa and potential risk factors in an international sample
76 of experienced yoga practitioners.

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78 **Methods**

79

80 *Study design*

81 We developed an anonymous, self-report questionnaire, in English, using the online
82 platform Google Forms. Participants were recruited by emails sent to yoga schools in Portugal,
83 UK and USA, asking to share the link of the study with their members; the link was also posted
84 on yoga groups on Facebook. The questionnaire referred that potential participants should
85 possess a good command of English language. The questionnaire included questions to evaluate
86 characteristics of yoga practice and yoga engagement, body and appearance-related variables,
87 personality traits, orthorexia, and sociodemographic information. The questionnaire took
88 approximately 15 minutes to complete and responses to all questions were mandatory, to avoid
89 missing values. The questionnaire was available from October through December 2018.

90 *Measures*

91 Participants were asked about the characteristics of their yoga practice, namely practice
92 frequency, duration, place of practice, and style practiced (see Supplementary Material).

93 Orthorexia nervosa and healthy orthorexia were assessed with the Teruel Orthorexia Scale [4],
94 a new instrument that measures both a healthy, non-pathological interest in diet (healthy
95 orthorexia), and the negative social and emotional impacts of the extreme preoccupation with
96 eating food believed to be healthy by the individual (orthorexia nervosa). Healthy orthorexia is
97 measured with 9 items (*e.g.*, “I feel good when I eat healthy food”), for a maximum score of
98 27, and orthorexia nervosa is measured with 8 items (*e.g.*, “I feel guilty when I eat food that I
99 do not consider healthy”), for a maximum score of 24. Both dimensions were answered on a 4-
100 point rating scale (from 0 = completely disagree to 3 = strongly agree; final score for each
101 dimension is the sum of the respective items).

102 The level of immersion in yoga was measured with the Yoga Immersion Scale [22, 23],
103 designed to assess the importance of yoga in the self-concept of yoga practitioners (*e.g.*, “The
104 wisdom of yoga affects how I perceive some other things of my everyday life”). This instrument
105 uses a 10 Likert-type rating scale responded on a 6-point rating scale (from 1 = strongly disagree
106 to 6 = strongly agree; total score is the mean of the items). The type of passion for yoga was
107 assessed using the Passion Scale [24], a 7-point Likert-type instrument (from 1 = do not agree
108 at all to 7 = completely agree; final score is the mean of the items for each sub-dimension) that
109 evaluates passion as a strong inclination toward an activity. Two different types of passion are
110 measured with this instrument: harmonious passion, an autonomous internalisation that leads
111 individuals to choose to engage in the activity (*e.g.*, “This activity allows me to live a variety
112 of experiences”), and obsessive passion, a controlled internalisation that creates an internal
113 pressure to engage in the activity (*e.g.*, “My mood depends on me being able to do this activity”)
114 [24]. The word “activity” was replaced by “yoga” in the questionnaire.

115 Perfectionist traits were evaluated using the Frost Multidimensional Perfectionism Scale
116 [25]. The four scales that measure self-oriented perfectionism were used, namely personal
117 standards (setting very high standards for personal evaluation; *e.g.*, “I set higher goals than most

118 people”), organization (importance of and preference for order and organization; *e.g.*, “I am a
119 neat person”), concern over mistakes (negative reactions to mistakes; *e.g.*, “I should be upset if
120 I make a mistake”), and doubts about actions (feeling that projects are not completed in a
121 satisfactory manner; *e.g.*, “I usually have doubts about the simple everyday things I do”), with
122 26 Likert-type items responded on a 5-point scale (from 1 = strongly disagree to 5 = strongly
123 agree; final score is the mean of the items). Self-discipline, a facet of consciousness considered
124 in the Big Five personality traits model, was measured using the self-discipline subscale of the
125 NEO-PI-R [26]. Self-discipline is defined as the ability of the individual to persist at difficult
126 or unpleasant tasks until completion (*e.g.*, “Once I start a project, I almost always finish it”),
127 and it was measured with 8 Likert-type items responded on a 5-point rating scale (from 1 =
128 strongly disagree to 5 = strongly agree; final score is the mean of the items).

129 Dysfunctional attitudes about appearance were assessed using the Beliefs About
130 Appearance Scale [27], with 20 Likert-type items (*e.g.*, “My appearance influences my ability
131 to do things”) responded on a 5-point rating scale (from 0 = not at all to 4 = extremely; final
132 score is the sum of the items). The subscale Drive for Thinness of the Eating Disorders
133 Inventory [28] was used to assess respondents’ excessive concern with dieting and weight (*e.g.*,
134 “I am terrified of gaining weight”), using 7 items on a 4-point rating scale (from always to
135 never; scoring depends on the item).

136 ***Data analysis***

137 Descriptive statistics were used to summarize the data for each scale and sub-scale.
138 Scale reliability was evaluated with Cronbach’s alpha; coefficients $\geq .8$ indicate good internal
139 consistency [29]. An independent samples *t*-test was used to compare orthorexia scores with
140 published scores. Associations among the measured variables were evaluated with Pearson’s
141 correlation coefficient. Relationships between orthorexia nervosa and predictor variables (age,

142 gender, personality traits, immersion and passion for yoga, variables related with appearance
143 and eating behaviours) were assessed with multiple regression. A significance level of .05 was
144 considered and all analyses were performed with IBM SPSS Statistics v. 25.

145

146 **Results**

147

148 Four-hundred sixty-nine yoga practitioners completed the online questionnaire. Most
149 participants were female (84%) and 57% were between 35 and 54 years old. Participants came
150 from 54 different countries and 6 continents; countries with the highest percentage of
151 respondents were the United States (29.1%), Portugal (11.9%) and the United Kingdom (9.6%).

152 Most participants have been practicing yoga for more than 2 years (87.6%) and most of
153 them practice 3 or more times a week (86.2%), for more than 4 hours per week (61.6%). The
154 practice happens mostly at home (26.7%) or in class (26.2%). The yoga styles mostly used or
155 with which the practitioners mostly identify themselves with were Ashtanga (54.4%), Hatha
156 (11.1%), Iyengar (10.9%), and Ashtanga-derived styles such as Vinyasa Flow, Power, and
157 Rocket yoga (9.6%) (see Supplementary Material).

158 Scores for orthorexia nervosa (ON) varied between 0 and 22, with a mean value of 5.89
159 ($SD = 4.56$) (Table 1). Mean values for healthy orthorexia (HO) were 17.82 ($SD = 4.94$), ranging
160 between 3 and 27. These scores were significantly higher than scores reported for Spanish
161 university students in two distinct samples that also used the Teruel Orthorexia Scale, for both
162 orthorexia nervosa and healthy orthorexia (study [4] ON: $M = 3.44$, $SD = 3.57$, $t(1409) = 11.04$,
163 $p < .0001$, $d = 0.60$; HO: $M = 12.52$, $SD = 5.22$, $t(1409) = 18.29$, $p < .0001$, $d = 1.04$; study [30]
164 ON: $M = 4.32$, $SD = 4.05$, $t(927) = 5.54$, $p < .0001$, $d = 0.36$; HO: $M = 12.71$, $SD = 5.26$, $t(927)$

165 = 15.27, $p < .0001$, $d = 1.00$). Table 1 presents descriptive statistics and reliability for the other
166 variables evaluated.

167 Several significant and moderate ($r > .4$) correlations were found (Table 2). Orthorexia
168 nervosa was moderately associated with healthy orthorexia ($r = .394$, $p < .001$), drive for
169 thinness ($r = .542$, $p < .001$), beliefs about appearance ($r = .435$, $p < .001$), and perfectionism
170 (concern over mistakes, $r = .421$, $p < .001$; doubts about actions $r = .379$, $p < .001$). Conversely,
171 healthy orthorexia was not associated with any personality traits or body and appearance-related
172 variables. Beliefs about appearance was significantly and moderately correlated with drive for
173 thinness ($r = .477$, $p < .001$) and perfectionism (concern over mistakes, $r = .557$, $p < .001$;
174 doubts about actions, $r = .404$, $p < .001$). Yoga immersion and harmonious passion were
175 significantly and moderately also correlated ($r = .581$, $p < .001$).

176 Multiple regression was used to determine potential predictors of orthorexia nervosa.
177 The regression model (adjusted $R^2 = .511$) indicated that drive for thinness, healthy orthorexia,
178 doubts about actions, obsessive passion for yoga, and beliefs about appearance are significant
179 predictors of orthorexia nervosa (Table 3). These predictors explained 51.1% of the variance in
180 orthorexia nervosa. The strongest predictors of ON were the drive for thinness ($\beta = .372$; $p <$
181 $.001$) and healthy orthorexia ($\beta = .335$, $p < .001$).

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183 **Discussion**

184

185 Overall, the occurrence of orthorexia nervosa in our sample was mostly associated with
186 a drive for thinness and a healthy concern about diet (measured as healthy orthorexia). Scores
187 for orthorexia nervosa and healthy orthorexia in our sample of experienced yoga practitioners
188 were significantly higher than scores reported for Spanish university students [4, 30]. A high

189 prevalence of orthorexic behaviours was also found in a sample of Spanish Ashtanga yoga
190 practitioners [3] and in Hungarian gym attendees practicing yoga [31]. Yoga practitioners
191 belong to the health-related occupations that have been consistently linked to a high prevalence
192 of ON, alongside gym-goers [31, 32], athletes [33], medical students [34], or dieticians [35,
193 36]. However, ON rates can also be high in the general population [37, 38], so it remains unclear
194 whether yoga and other health-related occupations are relevant risk factors for the development
195 of ON [7]. It must be noted, though, that most studies measuring ON in specific populations
196 have used the questionnaire ORTO-15, which has been the target of much criticism due to its
197 poor psychometric properties [39].

198 Rather than the yoga practice itself, a factor that can promote the adoption of eating
199 habits associated with orthorexia is the identification of the practitioner with yoga philosophy.
200 Drawing from ancient yoga texts, many yoga schools and teachers advise their students to “eat
201 clean”, and preferably to adopt vegetarian or vegan diets to comply with the yogic principle of
202 non-violence [40, 41]. Certain yoga traditions dictate such consumption practices [2], and
203 students may feel pressured to adopt specific eating habits, becoming vegetarian or vegan due
204 to concerns for animal welfare. Indeed, animal welfare was the most important motive for eating
205 a vegan diet in a sample of German vegans, but this concern was not associated with orthorexic
206 eating behaviours [42]; in that sample, orthorexic behaviour was related with health, aesthetics
207 and healing motives [42]. Therefore, being vegan for ethical reasons may be a protective factor
208 regarding the development of orthorexia [42, 43]. Other common yogic practices such as
209 vegetarianism, cleanses, detoxes, or fasting, may trigger orthorexic thinking, particularly in
210 individuals oriented towards body vigilance and body control, thus more susceptible to
211 disordered eating [2]. Indeed, a healthy interest in diet, identified as “healthy orthorexia” in the
212 Teruel Orthorexia Scale, was one of the strongest predictors of orthorexia nervosa in our sample
213 of yoga practitioners.

214 Another strong predictor of ON in yoga practitioners was the drive for thinness. By
215 definition, orthorexic individuals are concerned with the quality of food, rather than the
216 quantity, and weight loss is not considered a primary motivation for ON [44, 45]; however, the
217 relationship between ON and the desire to be thin in our sample of yoga practitioners suggests
218 otherwise. Our results are supported by other recent studies; for instance, the main motive
219 predicting orthorexia nervosa in a sample of Spanish university students was weight control
220 [30]. The criteria of food quantity and preoccupation with body weight *versus* food quality and
221 preoccupation with food pureness to distinguish between anorexia/bulimia and orthorexia,
222 respectively, may prove inaccurate. On one hand, anorectic individuals do care about the quality
223 of their food [46], and preoccupation with food quality often emerges in anorectic and bulimic
224 patients after treatment [47]. On the other hand, and contrary to the accepted definition of
225 orthorexia nervosa, a desire to be thin and dysfunctional attitudes towards physical appearance
226 can occur in individuals with orthorexic behaviours.

227 Besides lifestyle, eating-related, and body and appearance-related risk factors,
228 personality risk factors, particularly perfectionism, can also be linked to orthorexic tendencies.
229 We found weak/moderate associations between perfectionism and orthorexia nervosa in our
230 sample, and the sub-dimension “doubts about actions” emerged as a significant predictor of
231 ON. We are not aware of other studies that have evaluated the relationship between ON and
232 perfectionism in yoga practitioners, but in other populations, namely in Spanish [4, 48] and
233 American [8, 49] university students, perfectionism was also associated with greater ON
234 tendencies. Self-discipline was not related with any other personality trait or disordered eating
235 variable, except for an inverse correlation with the “doubts about actions” sub-dimension of
236 perfectionism. Practitioners who reported practicing more frequently and longer practices
237 scored higher on self-discipline, but no relationship was found with other characteristics of yoga
238 practice.

239 *Methodological limitations*

240 Although significant associations between orthorexia nervosa and risk factors were
241 found in our study, the issue of reverse causality is worth mentioning as a potential pitfall. A
242 descriptive, cross-sectional study does not allow discerning between causal effects (yoga
243 triggers orthorexia nervosa due to yoga's dietary guidelines and associated peer-pressure) and
244 selection (individuals with a tendency for orthorexic attitudes and behaviours will find a home
245 in yoga, given yoga's emphasis on pureness and clean eating). Finally, official diagnostic
246 criteria for orthorexia nervosa are still not available [39] and most scales that measure ON have
247 been criticized due to their poor psychometric characteristics. We used a relatively new
248 instrument, the Teruel Orthorexia Scale (TOS) [4], which has not yet been the target of criticism
249 regarding its ability to detect ON [39, 50]; however, the TOS has only been used, to the best of
250 our knowledge, with Spanish university students [4, 30, 51], which may hamper its
251 representativeness and applicability to other populations. In addition, TOS does not allow a
252 clear distinction between an orthorexic and a non-orthorexic individual, as threshold values for
253 ON diagnosis are not available – but then again, neither are diagnostic criteria for ON, which
254 would be essential to establish cut-off values.

255

256 **Conclusions**

257

258 This study aimed to evaluate the occurrence of orthorexia nervosa in an international
259 sample of experienced yoga practitioners and associations with personality and
260 appearance/body-related variables. Our results showed that mean scores for ON were higher
261 than for the general population, in agreement with previous studies that have found a high
262 prevalence of ON in yoga users. The main predictors of ON were a healthy interested in diet

263 and a drive for thinness, suggesting that individuals with orthorexic tendencies are concerned
264 not only with food quality, but also with physical appearance, overeating, and, consequently,
265 with food quantity, as in anorectic and bulimic individuals. Yoga has been increasingly used as
266 a complementary practice for the prevention and treatment of disordered eating, but the long-
267 term effects of yoga practice on disordered eating behaviours are still not clear.

268

269 *What is already known on this subject?*

270 Some studies indicate that yoga practitioners may present high levels of orthorexia nervosa
271 and other dysfunctional eating behaviours.

272

273 *What does this study add?*

274 The prevalence of ON in experienced yoga practitioners is high. Orthorexic individuals show a
275 preoccupation with body weight and healthy eating.

276

277 **Conflict of Interest:** The authors declare that they have no conflict of interest.

278 **Ethical approval:** Since this was a non-experimental, anonymous, voluntary survey, no ethical
279 approval was required.

280 **Informed consent:** Informed consent was obtained from all individual participants included in
281 the study.

282

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442 Table 1 – Reliability (Cronbach’s alpha) and descriptive statistics for the several scales. SD =
 443 standard deviation. n = 469.

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scales	alpha	mean	SD	min	max	skewness	kurtosis
Healthy orthorexia	.814	17.82	4.94	3.00	27.00	-0.45	-0.27
Orthorexia nervosa	.823	5.89	4.56	0.00	22.00	0.78	0.06
Drive for thinness	.857	3.81	4.65	0.00	21.00	1.53	1.80
Beliefs about appearance	.955	23.83	16.70	0.00	80.00	0.72	-0.08
Perfect – concerns mistakes	.899	2.07	0.83	1.00	4.89	0.95	0.44
Perfect - personal standards	.790	3.27	0.73	1.29	5.00	-0.08	-0.30
Perfect - doubts actions	.736	2.33	0.86	1.00	5.00	0.48	-0.29
Perfect - organization	.886	3.70	0.78	1.33	5.00	-0.39	-0.20
Self-discipline	.813	3.54	0.70	1.50	5.00	-0.25	-0.32
Harmonious passion	.827	5.82	0.93	1.10	7.00	-0.97	1.55
Obsessive passion	.882	3.63	1.44	1.00	7.00	-0.13	-0.73
Yoga immersion	.882	4.73	0.91	1.10	6.00	-0.93	0.88

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449 Table 2 – Correlations between gender, personality, eating behaviours and yoga attitudes variables. Significant correlations are marked with * for
 450 $p < 0.05$ and ** for $p < 0.01$ (two-tailed). Moderate and strong correlations ($r > 0.40$) are in bold. $n = 469$.

451

	1	2	3	4	5	6	7	8	9	10	11	12
<i>1. Gender</i>												
<i>2. Drive for thinness</i>	-.074											
<i>3. Beliefs about appearance</i>	.009	.477**										
<i>4. Perfectionism concerns mistakes</i>	-.043	.396**	.557**									
<i>5. Perfection. personal standards</i>	.012	.269**	.292**	.426**								
<i>6. Perfectionism doubts actions</i>	.041	.253**	.404**	.593**	.213**							
<i>7. Perfectionism organization</i>	-.036	.138**	.116*	.035	.334**	.015						
<i>8. Self-discipline</i>	-.005	-.043	-.204**	-.239**	.193**	-.455**	.345**					
<i>9. Harmonious passion</i>	-.040	-.064	-.055	-.082	.069	-.065	.148**	.071				
<i>10. Obsessive passion</i>	.022	.183**	.248**	.282**	.154*	.249**	.099*	-.099*	.422**			
<i>11. Yoga immersion</i>	-.006	-.058	-.021	-.109*	.053	-.002	.152**	.041	.581**	.321**		
<i>12. Healthy orthorexia</i>	.004	.089	.058	.003	.205**	.033	.186**	.135**	.292**	.185**	.351**	
<i>13. Orthorexia nervosa</i>	-.005	.542**	.435**	.421**	.253**	.379**	.154**	-.116*	.082	.383**	.138**	.394**

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454 Table 3 – Predictors of orthorexia nervosa in a sample of yoga practitioners. Model obtained
 455 through multiple regression. Adjusted $R^2 = .511$. B = unstandardized regression coefficient; SE
 456 = standard error; β = standardized regression coefficient.

	B	SE	β	p
Constant	-4,546	1,560		,004
Drive for thinness	,365	,038	,372	,000
Healthy orthorexia	,309	,033	,335	,000
Obsessive passion	,611	,125	,193	,000
Doubts about actions	,615	,242	,117	,011
Beliefs about appearance	,023	,012	,086	,045
Concern over mistakes	,535	,273	,098	,051
Personal standards	-,314	,253	-,050	,216
Organization	,222	,220	,038	,313
Self-discipline	-,171	,277	-,026	,536
Harmonious passion	-,358	,213	-,073	,094
Yoga immersion	,164	,211	,033	,437
Age18_24	1,313	,974	,046	,178
Age25_34	,539	,448	,048	,230
Age35_44	,403	,394	,041	,306
Age55_64	,203	,493	,016	,681
Age65	-,534	,818	-,023	,515
Gender	,345	,431	,027	,424

457 Note: Gender is coded with a dummy variable where 0 = women and 1 = men. Age45_54 was excluded from the
 458 model.

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462 **Supplementary material**

463 Questions about characteristics of yoga practice included in the questionnaire.

464

465 For how long have you been practicing yoga?

466 *Less than 6 months* *6 months – 1 year* *1-2 years* *More than 2 years*

467

468 How often do you practice yoga?

469 *Once a week or less* *1-2 times a week* *3-4 times a week* *More than 4 times a week*

470

471 How many hours a week do you practice yoga?

472 *1 hour or less* *1-2 hours* *3-4 hours* *More than 4 hours*

473

474 Please estimate the proportion of your practice you do at home (unsupervised) compared to in class (under the supervision/guidance of a teacher).

476 *Only at home*

477 *Mostly at home (70-90% at home)*

478 *More at home than in class (50-70% at home)*

479 *More in class than at home (30-50% at home)*

480 *Mostly in class (10-30% at home)*

481 *Only in class*

482

483 Which style of yoga do you practice more often or do you best identify yourself with?

484 *Acroyoga* *Aerial yoga* *Anusara yoga* *Ashtanga vinyasa yoga*

485 *Bikram yoga* *Forrest yoga* *Hatha yoga* *Hot yoga*

486 *Iyengar yoga* *Integral yoga* *Jivamukti yoga* *Kripalu yoga*

487 *Kundalini yoga* *Power yoga* *Pre/post-natal yoga* *Restorative yoga*

488 *Rocket yoga* *Satyananda yoga* *Shivananda yoga* *SwaSthya yoga*

489 *Viniyoga* *Vinyasa flow yoga* *Vivekanada yoga* *Yin yoga*

490 *Yogatherapy* *other style* *I don't know*

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500 **Supplementary material**

501 Sociodemographic characteristics of participants (n = 469).

	% (n)
Gender	
<i>Female</i>	84.2 (395)
<i>Male</i>	14.7 (69)
<i>Other/prefer not to say</i>	1.1 (5)
Age	
<i><18 years</i>	0
<i>18-24</i>	2.6 (12)
<i>25-34</i>	21.1 (99)
<i>35-44</i>	32.4 (152)
<i>45-54</i>	25.6 (120)
<i>55-64</i>	14.3 (67)
<i>≥65 years</i>	4.0 (19)
Marital status	
<i>Single</i>	24.7 (116)
<i>Married/domestic partnership</i>	65.9 (309)
<i>Widowed</i>	1.1 (5)
<i>Divorced/separated</i>	8.3 (39)
Occupation	
<i>Working full-time</i>	52.9 (248)
<i>Working part-time</i>	26.2 (123)
<i>Full-time caregiver</i>	3.4 (16)
<i>Full-time student</i>	4.1 (19)
<i>Temporarily unemployed</i>	4.1 (19)
<i>Retired</i>	8.3 (39)
<i>Permanently unemployed</i>	1.0 (5)
Educational level	
<i>Primary/elementary education</i>	0.2 (1)
<i>Secondary education</i>	6.0 (28)
<i>Incomplete college or university education</i>	8.1 (38)
<i>Complete college or university education</i>	42.0 (197)
<i>Masters</i>	32.4 (152)
<i>Doctorate</i>	11.3 (53)
Household size	
<i>1</i>	18.6 (87)
<i>2</i>	39.4 (185)
<i>3</i>	17.1 (80)
<i>4</i>	17.5 (82)
<i>≥5</i>	7.5 (35)
Continent of residence	
<i>Europe</i>	42.4 (199)
<i>North America</i>	38.4 (180)
<i>Asia</i>	9.4 (44)
<i>Oceania</i>	5.3 (25)
<i>South America</i>	3.2 (15)
<i>Africa</i>	1.1 (5)

502

503 **Supplementary material**

504 Characteristics of yoga practice (n = 469).

505

	% (n)
<i>For how long have you been practicing yoga?</i>	
<i>Less than 6 months</i>	2.1 (10)
<i>6 months – 1 year</i>	3.0 (14)
<i>1 – 2 years</i>	7.2 (34)
<i>More than 2 years</i>	87.6 (411)
<i>How often do you practice yoga?</i>	
<i>Once a week or less</i>	4.2 (20)
<i>1 - 2 times a week</i>	9.6 (45)
<i>3 - 4 times a week</i>	26.9 (126)
<i>More than 4 times a week</i>	59.3 (278)
<i>How many hours a week do you practice yoga?</i>	
<i>1 hour or less</i>	5.8 (27)
<i>1 – 2 hours</i>	18.1 (85)
<i>3 -4 hours</i>	14.5 (68)
<i>More than 4 hours</i>	61.6 (289)
<i>Proportion of practice at home and in class</i>	
<i>Only at home</i>	14.1 (66)
<i>Mostly at home</i>	26.7 (125)
<i>More at home than in class</i>	13.0 (61)
<i>More in class than at home</i>	11.7 (55)
<i>Mostly in class</i>	26.2 (123)
<i>Only in class</i>	8.3 (39)
<i>Yoga styles</i>	
<i>Ashtanga vinyasa</i>	54.4 (255)
<i>Hatha</i>	11.1 (52)
<i>Iyengar</i>	10.9 (51)
<i>Vinyasa flow, power, rocket</i>	9.6 (45)
<i>Other styles</i>	14.1 (66)

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