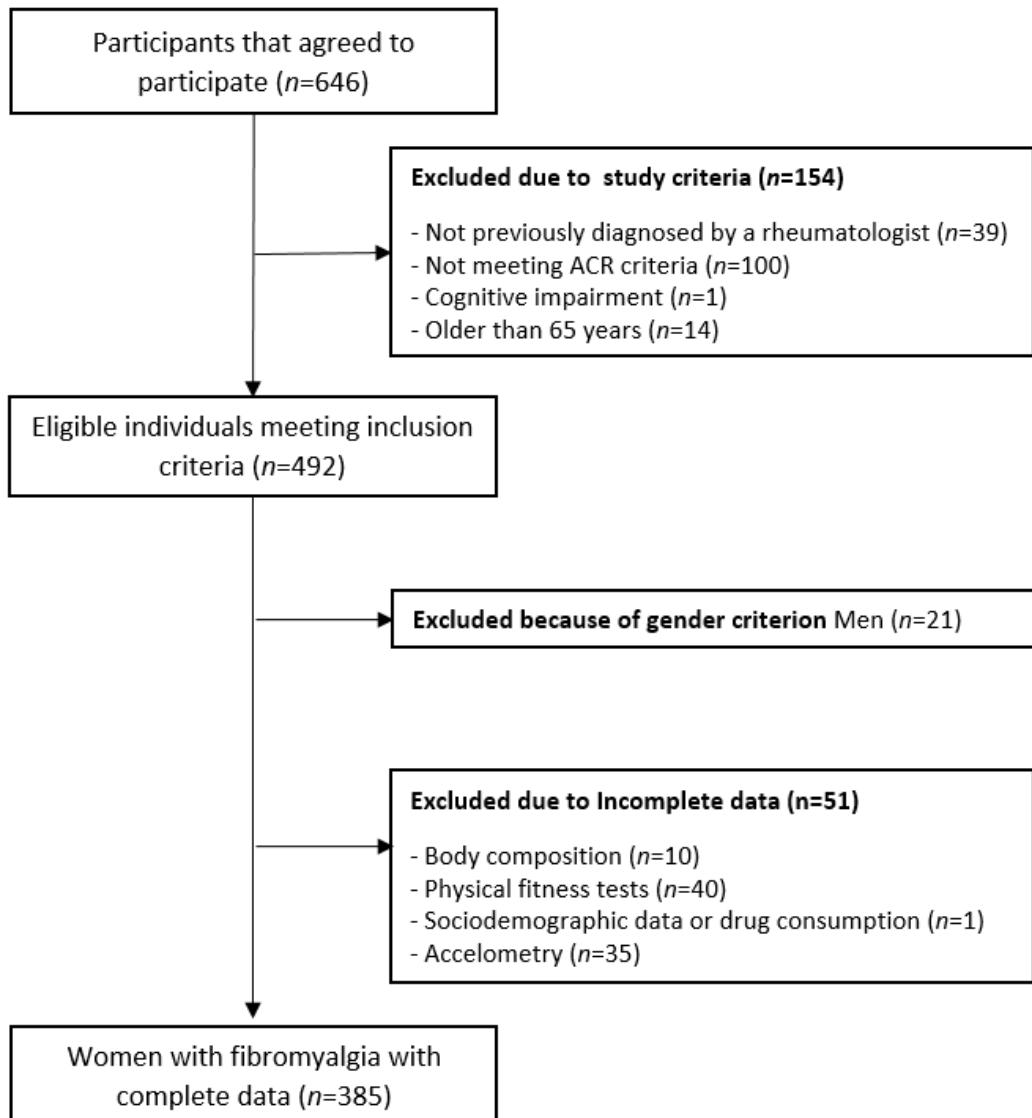


## SUPPLEMENTARY MATERIAL



**Figure S1.** Flowchart of subject enrolment. ACR: American College of Rheumatology.

**Table S1.** Independent association of sedentary time, light physical activity, bouted moderate-to-vigorous physical activity, sleep duration and physical fitness, with body composition.

	Waist Circumference				Body mass index				Body fat percentage				Muscle mass index <sup>a</sup>							
	B	95 % CI	$\beta$	Adj. R <sup>2</sup>	B	95 % CI	$\beta$	Adj. R <sup>2</sup>	B	95 % CI	$\beta$	Adj. R <sup>2</sup>	B	95 % CI	$\beta$	Adj. R <sup>2</sup>				
Sedentary time	<b>0.030***</b>	<b>0.017</b>	<b>0.043</b>	<b>0.24</b>	<b>0.011***</b>	<b>0.005</b>	<b>0.017</b>	<b>0.211</b>	<b>0.013**</b>	<b>0.005</b>	<b>0.021</b>	<b>0.173</b>	0.000	-0.001	0.001	-0.043				
Bouted MVPA <sup>b</sup>	-0.005	-0.017	0.006	-0.047	0.163	-0.003	-0.008	0.002	-0.066	0.117	-0.004	-0.011	0.003	-0.051	0.126	0.000	-0.001	0.001	-0.012	0.380
Sleep duration	<b>0.021**</b>	<b>0.007</b>	<b>0.035</b>	<b>0.144</b>	<b>0.008*</b>	<b>0.002</b>	<b>0.014</b>	<b>0.126</b>	<b>0.01*</b>	<b>0.001</b>	<b>0.018</b>	<b>0.113</b>	0.001	0.000	0.002	0.058				
Sedentary time	<b>0.028 ***</b>	<b>0.015</b>	<b>0.042</b>	<b>0.230</b>	<b>0.010***</b>	<b>0.005</b>	<b>0.016</b>	<b>0.199</b>	<b>0.012**</b>	<b>0.004</b>	<b>0.020</b>	<b>0.162</b>	0.003	-0.001	0.006	0.077				
Bouted MVPA <sup>b</sup>	-0.004	-0.016	0.007	-0.037	0.170	-0.003	-0.008	0.002	-0.054	0.127	-0.003	-0.010	0.004	-0.040	0.135	0.000	-0.003	0.003	-0.005	0.265
Sleep duration	<b>0.022 **</b>	<b>0.009</b>	<b>0.036</b>	<b>0.154</b>		<b>0.008**</b>	<b>0.002</b>	<b>0.014</b>	<b>0.138</b>		<b>0.011*</b>	<b>0.002</b>	<b>0.019</b>	<b>0.125</b>		0.001	-0.002	0.005	0.040	
Physical fitness score	<b>-4.017 *</b>	<b>-7.785</b>	<b>-0.250</b>	<b>-0.107</b>		<b>-1.929*</b>	<b>-3.562</b>	<b>-0.297</b>	<b>-0.121</b>		<b>-2.580*</b>	<b>-4.873</b>	<b>-0.286</b>	<b>-0.115</b>		0.810	-0.120	1.741	0.082	
LPA	<b>-0.033***</b>	<b>-0.047</b>	<b>-0.018</b>	<b>-0.234</b>		<b>-0.012***</b>	<b>-0.019</b>	<b>-0.006</b>	<b>-0.212</b>		<b>-0.014**</b>	<b>-0.023</b>	<b>-0.006</b>	<b>-0.174</b>		0.001	-0.001	0.002	0.044	
Bouted MVPA <sup>b</sup>	<b>-0.012*</b>	<b>-0.023</b>	<b>-0.001</b>	<b>-0.102</b>	0.162	<b>-0.006*</b>	<b>-0.01</b>	<b>-0.001</b>	<b>-0.113</b>	0.118	-0.006	-0.013	0	-0.09	0.127	0.000	-0.001	0.001	-0.002	0.364
Sleep duration	<b>0.021**</b>	<b>0.007</b>	<b>0.035</b>	<b>0.144</b>		<b>0.008*</b>	<b>0.002</b>	<b>0.014</b>	<b>0.127</b>		<b>0.01*</b>	<b>0.001</b>	<b>0.018</b>	<b>0.114</b>		0.001	0.000	0.002	0.058	
LPA	<b>-0.031 ***</b>	<b>-0.046</b>	<b>-0.017</b>	<b>-0.223</b>		<b>-0.012***</b>	<b>-0.018</b>	<b>-0.005</b>	<b>-0.200</b>		<b>-0.013**</b>	<b>-0.022</b>	<b>-0.005</b>	<b>-0.163</b>		-0.003	-0.006	0.001	-0.077	
Bouted MVPA <sup>b</sup>	-0.010	-0.021	0.000	-0.089	0.169	<b>-0.005*</b>	<b>-0.010</b>	<b>0.000</b>	<b>-0.099</b>	0.129	-0.005	-0.012	0.001	-0.076	0.136	-0.001	-0.003	0.002	-0.023	0.265
Sleep duration	<b>0.022 **</b>	<b>0.009</b>	<b>0.036</b>	<b>0.155</b>		<b>0.008**</b>	<b>0.003</b>	<b>0.014</b>	<b>0.139</b>		<b>0.011*</b>	<b>0.002</b>	<b>0.019</b>	<b>0.125</b>		0.002	-0.002	0.005	0.040	
Physical fitness score	<b>-4.019 *</b>	<b>-7.789</b>	<b>-0.249</b>	<b>-0.107</b>		<b>-1.920*</b>	<b>-3.551</b>	<b>-0.289</b>	<b>-0.121</b>		<b>-2.570*</b>	<b>-4.862</b>	<b>-0.277</b>	<b>-0.114</b>		0.811	-0.119	1.741	0.082	

B, non-standardised coefficient;  $\beta$ , standardised coefficient; CI, confidence interval; LPA: light physical activity; MVPA: moderate-to-vigorous physical activity.

Models were adjusted for accelerometer wear time, age, marital status, professional status, current regular menstruation, and current consumption of alcohol.

<sup>a</sup> Models using muscle mass index were additionally adjusted for fat mass (kg).

<sup>b</sup> MVPA (min/week) accumulated in bouts of at least 10 min.

Significant associations are highlighted in bold with asterisks \* P≤0.05, \*\*P≤0.01, \*\*\* P≤0.001.