

**Physical activity promotion in clinical practice: a cross-sectional survey of Brazilian physical therapists**

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1 **Physical activity promotion in clinical practice: a cross-sectional survey of Brazilian physical**  
2 **therapists**

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13

14 **Acknowledgements**

15 The authors thank all physical therapists who have participated in the present study, as well as the  
16 responding representatives of the Regional Council of Physical Therapy and Occupational Therapy  
17 (CREFITO) and *Fisio em Ortopedia* portal, who have contributed substantially in the recruitment  
18 process of this study. Thanks also to the members of the Epidemiology and Implementation Science  
19 Research Group (Scimple) who have played an important role in the revision of the survey form.

20

21 **Declaration of interest**

22 None.

23

24 **Physical activity promotion in clinical practice: a cross-sectional survey of Brazilian physical**  
25 **therapists**

26

27 **Abstract**

28 **Background:** Regular physical activity is paramount for health. However, the prevalence of  
29 physical inactivity worldwide is an ongoing concern.

30 **Objective:** To explore the extent to which Brazilian physiotherapists work in the promotion of  
31 physical activity in clinical practice.

32 **Method:** Cross-sectional study with a convenience sample of 463 physical therapists from all  
33 regions of Brazil. Responses to an online questionnaire were analyzed with descriptive statistics as  
34 frequency (n) and proportion (%). The Wilcoxon test with pairwise comparisons and continuity  
35 correction allowed checking for differences between the frequency in which physical therapists  
36 intervened in favor of physical activity according to their own physical activity routine.

37 **Results:** Physical therapists reported to always initiate conversations regarding physical inactivity  
38 (74.3%, n=344) with patients/clients, propose interventions (50.3%, n=233), indicate specific local  
39 services for physical activity (51.8%, n=240), and formally assess a risk category for physical  
40 inactivity (34.3%, n=159). Most (83.2%, n=385) reported awareness of physical activity  
41 recommendations for adults and provided correct answers for days in a week recommended for  
42 strength training (90.5%, n=419). Physical therapists provided less correct answers for the  
43 recommended number of minutes for moderate-intensity (57.5%, n=266) and vigorous-intensity  
44 physical activity (44.7%, n=207). Those who were more physically active tended to address the  
45 inactivity of their patients/clients ( $p = 0.012$ ).

46 **Conclusion:** Physical activity promotion is partially integrated in the clinical practice of Brazilian  
47 physical therapists. However, there is a need for and an opportunity to strengthen educational  
48 approaches in physical therapy education platforms regarding the recommendations of physical  
49 activity across professional training.

50 **Keywords:** Global health; Health promotion; Physical activity; Physical therapy.

## 51 **Introduction**

52 Regular physical activity is paramount for health.<sup>1</sup> A physically active lifestyle reduces the  
53 risk of developing noncommunicable diseases (NCDs), such as cardiovascular diseases, type 2  
54 diabetes, and some types of cancer, such as breast and colon cancer,<sup>2</sup> for example. Physically  
55 inactive people tend to have worse quality of life scores and a shorter life expectancy. More than  
56 five million deaths per year worldwide have been attributed to the consequences of physical  
57 inactivity.<sup>2</sup> For health promotion and longevity, therefore, an active lifestyle should be facilitated  
58 and integrated throughout populations' lifespans. Still, the physical activity levels of the world  
59 population have been decreasing, which has led some scholars to treat physical inactivity as a  
60 pandemic.<sup>3</sup>

61 A third (31%) of adults over 18 years of age do not meet the World Health Organization's  
62 (WHO) physical activity recommendations. This proportion is even higher in the Americas (41%).<sup>4</sup>  
63 This non-adherence defines 'physical inactivity', a global health concern that increases the risk of  
64 NCDs, reduce quality of life and life expectancy.<sup>2</sup> Addressing physical inactivity then becomes a  
65 priority for global health initiatives.

66 In Brazil, the prevalence of physical inactivity is also concerning. The prevalence of  
67 insufficient physical activity among adults reported by WHO is 40%.<sup>5</sup> A survey carried out by the  
68 Brazilian Ministry of Sports found that 46% of Brazilians do not practice any type of physical  
69 activity or sport. Yet, more than 80% of respondents have reported being aware of the risks and  
70 problems caused by insufficient physical activity.<sup>6</sup> NCDs, for example, has been estimated to be the  
71 cause of 75% of all deaths in Brazil.<sup>6</sup> Cardiovascular diseases alone represent 28% of all  
72 mortalities. The probability of premature death due to NCDs is 15%.<sup>7</sup> As physical inactivity is  
73 among the main risk factors for NCDs and, consequently, premature death, physical activity  
74 promotion becomes essential for global health efforts.

75            Responding to the high prevalence of physical inactivity worldwide and its negative impact  
76 on health, the WHO has launched the Global Action Plan for Physical Activity 2018–2030.<sup>1</sup> The  
77 goal of this action plan is to reduce the prevalence of physical inactivity worldwide by 15% by  
78 2030. The implementation of the Global Action Plan for Physical Activity 2018–2030 depends on  
79 the participation of all sectors of society and its knowledge fields, including physical therapy. Such  
80 implementation will contribute to achieving 13 of the 17 Sustainable Development Goals that  
81 compose the 2030 Agenda for Sustainable Development, the United Nations agenda for the current  
82 decade.<sup>8</sup>

83            Among health clinicians, physical therapists are considered experts in human movement.  
84 Physical therapists work to promote health and prevent diseases at all levels of health care (primary,  
85 secondary, and tertiary).<sup>9</sup> The type of work conducted by physical therapists usually results in a  
86 bond with the users of their services and, often, also with the relatives of such users. Physical  
87 therapists, therefore, are in a strategic position to monitor and provide guidance regarding the best  
88 health and quality of life practices that go beyond the treatment of health conditions or  
89 comorbidities; as well as for tackling the pandemic of physical inactivity through the assessment  
90 and promotion of a physically active lifestyle.<sup>9,10</sup> Bringing such a rationale to local realities,  
91 however, is still an ongoing process.<sup>11</sup>

92            Physical therapists' knowledge and practices towards physical activity promotion have been  
93 studied in countries such as Australia<sup>12</sup> and the United Kingdom (UK)<sup>13</sup>. In Brazil, the Physical  
94 Activity Guidelines for the Brazilian Population<sup>14</sup> has been developed in accordance with the WHO  
95 physical activity recommendations<sup>15</sup>. To the best of our knowledge, however, it is not known  
96 whether physical therapists integrate the notion of physical activity into their clinical practice with  
97 the aim of contributing to the promotion of an active lifestyle for health. To what extent is the  
98 promotion of physical activity is part of the clinical practice of Brazilian physical therapists? This  
99 question guided the present study, which aims to offer an initial answer through three specific  
100 objectives:

- 101 1. To measure how often physical therapists:
- 102 a. initiate conversations about physical activity;
- 103 b. formally assess the state/level of physical activity;
- 104 c. implement interventions in favor of physical activity;
- 105 d. recommend physical activity services to the users of their services;
- 106 2. Assess physical therapists' knowledge of current physical activity recommendations;
- 107 3. To explore measure physical activity practice among physical therapists and
- 108 investigate whether it is associated with the promotion of physical activity in their
- 109 clinical practice.

## 110 **Methods**

### 111 **Design and Participants**

112 The present study was approved by the Human Research Ethics Committee of the  
113 University of Ribeirão Preto (register 34979020100005498). It was a cross-sectional aimed at  
114 including physical therapists from all over the Brazilian territory. We have contacted the Federal  
115 Council of Physical Therapy and Occupational Therapy (COFFITO) in Brazil, as well as the 18  
116 regions of the Regional Council of Physical Therapy and Occupational Therapy (CREFITO) in  
117 order to use their respective online platforms to recruit participants. We have also used our social  
118 networks to enhance the recruitment process online, as well as at the 2021 Brazilian Congress and  
119 VII International Congress of the National Society of Sports Physiotherapy, 2022 Brazilian  
120 Congress of Physical Therapy,<sup>16</sup> and in a podcast on a major educational platform for physical  
121 therapists in Brazil.<sup>17</sup>

### 122 **Data Collection Process**

123 Data collection for a convenience sample was carried out online via Google Forms and  
124 remained open from September 2021 until October 2022. After clicking on the link to the form,  
125 candidates for participation were presented with a welcoming message describing the objectives and

126 procedures of the study, as well as the criteria for participation. Participants should be (1) physical  
127 therapists with an active registration in one CREFITO region and (2) working in a clinical setting  
128 (meeting patients/clients) in the Brazilian territory. By clicking “I agree to participate in the study  
129 and confirm that I am a physical therapist working at a clinic in Brazil, with a CREFITO  
130 registration”, participants were redirected to the online form.

### 131 **Survey Form**

132 The form for data collection was composed of a questionnaire used in a previous study  
133 exploring the promotion of physical activity in the clinical practice of physical therapists in the  
134 UK.<sup>13</sup> This questionnaire was freely translated from British English to Brazilian Portuguese by the  
135 first author. Minimal adaptations were incorporated after translation to better suit the Brazilian  
136 context. “Nation” was replaced by “federation unit” in question 1; “healthcare setting” was replaced  
137 by “level of healthcare” (e.g., primary, secondary, tertiary) in question 2; in question 3, participants  
138 were asked “how long they have been working as a physical therapist” instead of “as an AHP or  
139 support worker”; and “UK physical activity guidelines” were replaced by “physical activity  
140 guidelines in Brazil”. Knowledge of physical activity guidelines refers to the physical  
141 recommendations for adults.

142 We have also added three questions in order to capture whether participants had a  
143 postgraduate degree, whether they had a specialization recognized by COFFITO, and an open  
144 question inviting them to share any information considered relevant but not asked in the form. The  
145 translated questions, combined with these three additional ones, were reviewed by the first author’s  
146 supervisor (SB) and by 8 physical therapists from the Epidemiology and Implementation Science  
147 Research Group (Scimple). The final form consisted of 16 questions (supplementary material).

### 148 **Data Analysis**

149 Responses were automatically transferred to Google Sheets, where a descriptive data  
150 analysis was performed. Continuous variables with a non-parametric distribution were described by

151 their median and interquartile range of 25% and 75%, and categorical variables by their frequency  
152 (n) and proportion (%). Physical therapists' knowledge of physical activity recommendations was  
153 assessed based on the Physical Activity Guidelines for the Brazilian Population,<sup>14</sup> which is aligned  
154 to the current WHO physical activity recommendations.<sup>15</sup>

155 The Kruskal-Wallis rank sum test was carried out to investigate the association between the  
156 frequency of physical activity days-in-a-week practiced by participants and the frequency of their  
157 interventions to promote physical activity in their clinical practice. Pairwise comparisons using the  
158 Wilcoxon test with continuity correction were used to analyze potential differences between the  
159 frequency with which participants addressed physical activity promotion (never, sometimes,  
160 usually, or always) according to the frequency of their own physical activity practice. Both Kruskal-  
161 Wallis and Wilcoxon tests were performed in R software (<https://www.r-project.org>), version 4.0.3.

## 162 **Results**

### 163 **Recruitment Process Output**

164 The COFFITO responded to our contact, saying that the council does not disseminate  
165 recruitments for participation in scientific research on its institutional platforms. Among the 18  
166 regions of the CREFITO, 50% (n=9) have shared the invitation to participate in the present study in  
167 their digital platforms. The remaining 50% (n=9) did not respond to our contacts by email,  
168 telephone or via their specific contact forms.

### 169 **Participants' Characteristics**

170 Physical therapists from all the five regions of Brazil were included. Most physical  
171 therapists (60%) were located in the Southeast region (Figure 1). Minas Gerais was the federation  
172 unit with the highest proportion of participants (25%). There was no participation of physical  
173 therapists from seven (25.9%) Brazilian units of federation (Figure 2). Participants' characteristics  
174 are shown in Table 1.

175           The form was completed by 463 physical therapists, most (56.4%, n=261) working in  
176 tertiary healthcare settings. About a third (31.9%, n=148) reported working at more than one level  
177 of healthcare (i.e., primary, secondary, and/or tertiary). Most physical therapists have reported  
178 having some kind of graduate training, have been working in the private sector (59.4%, n=275) and  
179 have spent up to five years in clinical practice (38.9%, n=180). A quarter of participants (24.8%,  
180 n=115) have been recognized as experts by COFFITO.

### 181 **Physical (In)Activity Approaches in the Clinical Setting**

182           Data regarding the approaches of physical activity promotion in the physical therapy clinical  
183 setting are shown in Table 2. Most physical therapists reported that, when appropriate, they always  
184 initiate conversations regarding physical inactivity (74.3%, n=344). Half of physical therapists  
185 reported that, when indicated, they address physical inactivity (50.3%, n=233), or indicate specific  
186 local services for physical activity (51.8%, n=240). About a third reported that they always formally  
187 assess whether the user of their services falls into a risk category for physical inactivity (34.3%,  
188 n=159).

### 189 **Physical Therapists' Knowledge about Physical Activity Recommendations**

190           Most physical therapists (83.2%, n=385) reported to be aware of the existence of physical  
191 activity recommendations for adults in Brazil. Data regarding the physical therapists' knowledge  
192 about physical activity recommendations for adults are shown in Table 3. Correct answers were the  
193 majority for the number of days in a week that adults are recommended to practice strength training  
194 (90.5%, n=419) and nearly for the number of minutes for moderate-intensity physical activity  
195 (57.5%, n=266). Less than half (44.7%, n=207) answered correctly the number of minutes that  
196 adults are recommended to practice vigorous-intensity physical activity.

### 197 **Physical Therapists' Practice and Promotion of Physical Activity**

198 Days per week of physical activity practice by physical therapists are shown in Table 1.  
199 Most physical therapists (79.3%, n=367) reported practicing, at least one day in a week, physical  
200 activities that increase respiratory rate for at least 30 minutes. Only 22,2% (n=103) of physical  
201 therapists reported practicing five or more days per week (i.e., virtually, the minimum  
202 recommended for at least 150 minutes per week). The Kruskal-Wallis test has shown an association  
203 between the frequency of weekly physical activity practiced by physical therapists and the  
204 frequency with which they propose interventions to reduce the physical inactivity of the users of  
205 their services ( $p = 0.001128$ ). The Wilcoxon test has shown that physical therapists who are more  
206 physically active (in days per week) tend to address the inactivity of their patients/clients ( $p =$   
207  $0.012$ ). However, no differences could be established ( $p > 0.05$ ) between the physical activity of  
208 physical therapists who never address physical inactivity and the other categories (sometimes,  
209 generally, always). Figure 3 shows the days of physical activity per week by frequency of  
210 intervention.

## 211 Discussion

212 A physically active lifestyle is crucial for health. Still, physical inactivity is a substantial  
213 contemporary global health problem.<sup>2,3</sup> The WHO has established an action plan for the promotion  
214 and maintenance of a physically active lifestyle throughout the lifespan, which is aligned with the  
215 goals of the 2030 Agenda for Sustainable Development.<sup>1</sup> All sectors of society are welcome and  
216 needed in the implementation of such an action plan. As experts in human movement, physical  
217 therapists are among the health professionals who can contribute to the promotion and maintenance  
218 of a physically active lifestyle and, therefore, the implementation of the 2030 Agenda.<sup>8</sup> The present  
219 study aimed at (1) understanding whether Brazilian physical therapists have been working with  
220 approaches to physical activity in their clinical practice, (2) assessing the physical therapists'  
221 knowledge of current physical activity recommendations for adults, and (3) investigating potential  
222 associations between their physical activity practice and promotion in the clinical setting.

## 223 **Physical activity approaches in clinical practice**

224           The present study shows that Brazilian physical therapists have somehow incorporated  
225 approaches towards the problem of physical inactivity, as well as the promotion of physical activity,  
226 in clinical practice (Table 2). As physical therapists work in direct contact with most of their  
227 patient/clients on a regular basis, they are considered well-positioned professionals to assess and  
228 promote lifestyle changes for global health,<sup>18</sup> especially regarding physical activity.<sup>10</sup>

229           Our results can be compared to previous studies conducted in Australia and the UK. More  
230 than half of Australian physical therapists reported that they encourage ten or more of their  
231 patients/clients each month to adopt a more physically active lifestyle.<sup>12</sup> In the UK, most physical  
232 therapists (76.6%) have reported always talking about physical activity with their patients/clients  
233 when indicated to do so; 40.0% always assess physical activity status; 68.0% deliver interventions  
234 towards physical activity; and 44.2% recommend physical activity services to their patients/clients  
235 to other.<sup>13</sup> Such findings show that physical therapist in Brazil, UK have been somehow actively  
236 engaged in the promotion of a physically active lifestyle.

237           The international variations might be attributed to differences in national healthcare policies,  
238 the specific roles of physical therapists within their healthcare systems, or the emphasis on  
239 preventive care within their professional training. Further comparative research could explore these  
240 contextual factors. Despite high rates of initial conversations about physical activity, the lower rates  
241 of formal assessment and interventions reported suggest a gap between intention and integration of  
242 physical activity promotion per se. Future studies would also be welcome to investigate barriers and  
243 facilitators to bridge such this gap.

## 244 **Knowledge of physical activity recommendations**

245           While the present as well as previous studies<sup>12,13</sup> show that physical therapists are somehow  
246 engaged with physical activity promotion, there is some cause for concern with regard to their  
247 knowledge about the current physical activity recommendations for adults. The present study shows

248 that nearly half of Brazilian physical therapists provided correct answers to the questions about  
249 moderate- and vigorous-intensity physical activity. The significant majority of correct answers were  
250 regarding the recommended number of days per week of strength training only (Table 3).

251         Comparable results were reported in a previous study with physical therapists from the UK,  
252 where 60% and 33% of the participants correctly answered the questions regarding UK guidelines  
253 for moderate- and vigorous-intensity physical activity, respectively.<sup>13</sup> In the study conducted in  
254 Australia, one-third of the respondents could name the Australian physical activity  
255 recommendations for adults. Most professionals and students agreed that is part of their role as  
256 physical therapists to provide physical activity advice for their patients/clients.<sup>12</sup> Although is of  
257 utmost importance that physical therapists consider themselves responsible for and engage in  
258 physical activity promotion and advice, the findings of such studies, including the present, show  
259 that there is a gap in physical therapy education regarding the recommendations or guidelines for  
260 physical activity. This partial gap may stem from various factors, including time constraints,  
261 insufficient training during professional education, or systemic barriers within healthcare settings,  
262 all of which warrant further investigation.

### 263 **Association between physical activity practice and promotion**

264         A physically active lifestyle is important for all, including physical therapists. The minority  
265 (22.2%) of physical therapists participating in the present study reported practicing five or more  
266 days per week of physical activities that increase respiratory rate for at least 30 minutes. Though  
267 this self-report could not be considered a precise measure, it suggests that most of these physical  
268 therapists would virtually be practicing the current Physical Activity Guidelines for the Brazilian  
269 Population<sup>14</sup> as well as the WHO recommendations.<sup>15</sup> On the other hand, such finding also suggests  
270 that most (77.8%) of the participants in the present study could be categorized as physically  
271 inactive; i.e., not adhering to the WHO physical activity minimal recommendations. Twenty percent  
272 reported not practicing any physical activity on any day of the week.

273           There is, therefore, some concern for the health of physical therapists. Our findings point  
274 towards the need to study the promotion and maintenance of a physically active lifestyle for  
275 physical therapists themselves. In the study conducted in the UK, using the form on which the  
276 present study was based, 38% of the physical therapists were considered to be attending the WHO  
277 physical activity recommendations.<sup>13</sup> The lifestyle of physical therapists regarding physical activity  
278 seems to have no direct association with their interventions towards a more physically active  
279 lifestyle of their patients/clients. In this UK study, there was no association between physical  
280 therapists' own practice and the delivered interventions for physical activity.<sup>13</sup> In the present study,  
281 there was a tendency for physical therapists who are more physically active to intervene more  
282 toward the physical activity of their patients/clients. However, no significant differences were  
283 established between physical therapists who 'never' intervene and those in other intervention  
284 categories, suggesting a modest trend rather than a strong, consistently differentiated association.

### 285 **Strengths and Limitations**

286           To our knowledge, the present study is the first to investigate the promotion of physical  
287 activity in the clinical settings of physical therapists in Brazil. The present study is cross-sectional  
288 and, therefore, does not allow an investigation of causal relations or temporal variations. This study  
289 design could be considered a limitation. However, the present study can be seen as a first step in  
290 studying the promotion of physical activity in the clinical practice of Brazilian physical therapy.  
291 Future studies can use the present study as a baseline for a continuous investigation, which would  
292 allow temporal comparisons.

293           Despite our efforts to recruit participants, the convenience sample included in the study may  
294 not be representative of Brazilian physical therapists. Also, the present study may involve a  
295 participation bias: physiotherapists more interested in physical activity and health promotion may  
296 have participated, while others, less interested, have not. Still, we consider that the experience and  
297 findings of the present study have important implications for physical therapy research, education,

298 and practice. Further studies can learn from the process and limitations described here in order to  
299 strengthen their methodology.

300 Another limitation concerns the data-collection instrument. We used a questionnaire adapted  
301 from a UK study and translated into Brazilian Portuguese. Although we undertook procedural  
302 revisions during adaptation, we did not conduct a formal validation for this context, which may limit  
303 content validity and interpretability. We also did not measure contextual or motivational determinants  
304 of the reported practices. Future work should undertake formal translation and cross-cultural  
305 adaptation alongside psychometric validation (e.g., content/construct validity, internal consistency,  
306 test–retest reliability) and incorporate measures of key determinants to strengthen interpretation.

### 307 **Implications for education, practice, and research**

308 This study can be considered a first step towards the investigation of the extent to which  
309 Brazilian physical therapists incorporate approaches to physical activity into their clinical practice.  
310 We have found that, while approaches to physical activity have already been incorporated in  
311 clinical settings, a substantial amount of the participants has not been able to answer properly the  
312 questions regarding the physical activity recommendations for adults. As previous studies have  
313 shown,<sup>12,13</sup> this is not a particularity of Brazilian physical therapists. Therefore, we understand that  
314 there is a need for and opportunity to strengthen educational approaches in physical therapy  
315 education platforms regarding the recommendations of physical activity across the lifespan. Such  
316 education efforts can be important for the physical activity practice of physical therapists  
317 themselves, as well as of their patients/clients.

318 Research is a cornerstone for the practice of all health professionals, including physical  
319 therapists. Although such a statement can arguably be a consensus for professionals and institutions,  
320 the practice of researching itself can prove to be challenging. For the present study, we have  
321 contacted the major institutional bodies that represent physical therapists in Brazil, the COFFITO in  
322 Brazil as well as the 18 regions of the CREFITO, asking for support in the participant recruitment

323 process. We find it indispensable to note that half of the CREFITO regions have not answered our  
324 several contact attempts, and that COFFITO has not yet provided a space in its platforms for  
325 interacting with physical therapists for research. We acknowledge that there must be a reasonable  
326 argument behind these institutional positionings; however, rethinking such positionings might be  
327 possible in order to facilitate future research with Brazilian physical therapists.

## 328 **Conclusion**

329 Brazilian physical therapists have partially incorporated physical activity assessment and promotion  
330 in clinical practice, though with varying degrees of integration. Key elements of the current physical  
331 activity recommendations are not yet obvious to a substantial proportion of physical therapists.  
332 Creating and strengthening educational approaches to physical activity for physiotherapists is an  
333 opportunity to enhance physical therapy efforts to promote a physically active lifestyle for health.

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399 **Figures caption**

400 **Fig. 1.** Proportion (%) of survey participants (physical therapists) by region of Brazil.

401 **Fig. 2.** Proportion of survey participants (physical therapists) by federation units in Brazil. Units  
402 colored grey represent the non-participation.

403 **Fig. 3.** Physical therapists' days of physical activity per week by frequency of intervention. Boxes  
404 show the 25%–75% interquartile range (IQR), the horizontal line indicates the median, whiskers  
405 extend to  $1.5 \times \text{IQR}$ , and points denote outliers.

406

**Table 1.** Characteristics of Brazilian Physical Therapists Responding to the Survey

	<b>n</b>	<b>%</b>
<b>All participants</b>	463	100.00%
<b>Level of healthcare</b>		
Primary	43	9.3%
Secondary	11	2.4%
Tertiary	261	56.4%
Combinations	148	31.9%
<b>Working sector</b>		
Private	275	59.4%
Public	111	24.0%
Private and public	59	12.7%
Others*	77	16.6%
<b>Years of working experience</b>		
≤ 5	180	38.9%
6–10	68	14.7%
11–15	88	19.0%
16–20	60	13.0%
>20	67	14.5%
<b>Graduate education</b>		
None	49	10.6%
<i>Lato-sensu</i> <sup>†</sup>	294	63.5%
Master degree	38	8.2%
Doctorate degree	25	5.4%
Combinations	57	12.3%
<b>COFFITO specialization<sup>‡</sup></b>	115	24.8%
<b>Physical activity practice (days/week)</b>		
0	96	20.7%
1	27	5.8%
2	86	18.6%
3	101	21.8%
4	50	10.8%
5	61	13.2%
6	23	5.0%
7	19	4.1%

\*Community services, non-governmental organizations, and combinations of these with public and private sectors

†A type of graduate course offered by Brazilian institutions that focus on professional specialization in a certain field or practice, usually taking one or two years

‡A title of expertise certified by the Federal Council of Physical Therapy and Occupational Therapy (COFFITO)

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**Table 2.** Frequency (n) and proportion (%) of Brazilian physiotherapists' approaches to physical inactivity. Bold numbers represent majorities.

	Never	Sometimes	Usually	Always
Conversations	3 (0.6)	27 (5.8)	89 (19.2)	<b>344 (74.3)</b>
Assessment	58 (12.5)	120 (25.9)	126 (27.2)	<b>159 (34.3)</b>
Intervention	14 (3.0)	69 (14.9)	147 (31.7)	<b>233 (50.3)</b>
Recommending physical activity services	9 (1.9)	67 (14.47)	147 (31.7)	<b>240 (51.8)</b>

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**Table 3.** Brazilian physiotherapists' knowledge about WHO\* current (2020) physical activity recommendations for adults. Bold numbers represent majorities.

Questions	Correct answer	Correct answers (%)	Answers above the correct value (%)	Answers below the correct value (%)
How many minutes of moderate-intensity physical activity are recommended per week for adults?	150–300 minutes	<b>266 (57.5)</b>	8 (1.7)	189 (40.8)
How many minutes of vigorous-intensity physical activity are recommended per week for adults?	75–150 minutes	207 (44.7)	41 (8.9)	<b>215 (46.4)</b>
How many days a week is it recommended that adults practice muscle strengthening?	2 or more days	<b>419 (90.5)</b>	23 (5.0)	21(4.5)

\*WHO: World Health Organization

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