ORIGINAL ARTICLES

Translation and cross-cultural adaptation of the mSQUASH into European Portuguese

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ABSTRACT

Background: Regular physical activity is recommended for all patients with axial spondyloarthritis (axSpA), but measuring its frequency, duration and intensity can be challenging. The modified Short Questionnaire to ASsess Health-enhancing physical activity (mSQUASH) is a patient-reported outcome measurement designed to assess daily physical activity in patients with axSpA. This study aimed to translate the mSQUASH into European Portuguese and to perform field testing with cognitive debriefing interviews in patients with axSpA in Portugal.
Methods: The mSQUASH was translated into European Portuguese following the Beaton method. Two bilingual translators independently translated the questionnaire from English to European Portuguese, which was then harmonized into a consensus version. Two other translators back translated the synthesized version into English. Translation discrepancies were resolved within a scientific committee, resulting in a preliminary version. The preliminary version was field-tested through semi-structured one-to-one interviews with 10 patients with axSpA with a broad range of socio-demographic and clinical characteristics.
Results: The translation process was completed without major issues and minor disagreements were resolved in consensus meetings. During field testing, all participants found the questionnaire clear and appropriate. The median time to complete the questionnaire was 4 minutes and 15 seconds. Patient's feedback led to the correction of minor spelling errors and the addition of examples to the item "Home maintenance", which was misinterpreted as household activities by half of patients. The final version of the questionnaire, incorporating patient feedback, was approved by the scientific committee.
Conclusion: The European Portuguese version of the mSQUASH demonstrated good linguistic properties and performed well in a field test with axSpA patients. Further studies are needed to evaluate its psychometric properties.

Keywords: Patient-reported outcomes; Axial spondyloarthritis; Physical activity; Translation; Field testing.

KEY MESSAGES

- The mSQUASH is a patient-reported outcome tool designed to evaluate daily physical activity in patients with axSpA.
- In this study, we have translated and cross-culturally validated the European Portuguese version of the mSQUASH questionnaire, using the English version as a reference.
- The European Portuguese mSQUASH demonstrated good linguistic properties and performed well in a field test with patients with axSpA.

INTRODUCTION

Axial spondyloarthritis (axSpA) is a rheumatic and musculoskeletal disease (RMD) that predominantly affects the axial skeleton. The disease can be subdivided into radiographic axSpA (r-axSpA; previously termed ankylosing spondylitis) and non-radiographic axSpA (nr-axSpA),[1] depending on whether definitive damage, according to the modified New York criteria (mNY), is present or absent in pelvic radiographs, respectively. Patients with axSpA may also present with peripheral features and extra-musculoskeletal manifestations

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(EMM), such as acute anterior uveitis (AAU), inflammatory bowel disease (IBD) and psoriasis[2].

Exercise is a cornerstone in the management of axSpA, with demonstrated benefits on disease outcomes independent of pharmacological treatment[3,4]. Regular physical activity is recommended for all patients in the Assessment in SpondyloArthritis International Society (ASAS)/European Alliance of Associations for Rheumatology (EULAR) management recommendations[5]. A recent meta-analysis reported that exercise therapy improves disease control and symptom relief in patients with axSpA[6]. Despite these benefits, only a minority of axSpA patients follow the recommendations for vigorous-intensity, strength, and mobility exercises[7].

Human movement and energy expenditure due to physical activity is challenging to measure. Validated reference methods like the doubly labelled water method (DLW) are expensive and mostly limited to laboratory settings[8]. Moreover, they cannot provide information about frequency, duration and intensity of the physical activity. New objective measurement devices like pedometers, accelerometers and Global Positioning System (GPS) watches are feasible in clinical settings but have limitations[9]. Self-reported questionnaires are alternatives that offer advantages such as low cost, low patient burden and easy applicability in clinical practice.

The modified Short Questionnaire to Assess Health-enhancing physical activity (mSQUASH) is a patient-reported outcome measurement designed to assess daily physical activity in patients with axSpA. It has been developed and validated in Dutch[10] and represents an easily applicable, valid, reliable and responsive questionnaire that can be used in research and clinical settings. The mSQUASH has been translated and cross-culturally adapted into English, Spanish, Turkish, French and German[11–15]. The English version was recently field-tested in different rheumatic disease and validated in patients with axSpA[11].

The objectives of this study were to translate and cross-culturally adapt the mSQUASH into European Portuguese and to field test its applicability in patients with axSpA in Portugal.

METHODS

The translation process followed the Beaton method,[16] which consists of five phases: forward translation, synthesis, backward translation, scientific committee review, and field testing (Figure 1). The scientific committee included six rheumatologists, two rheumatology fellows, four bilingual translators, and the developer of the original mSQUASH. The translation and cross-cultural adaptation process took place between October 2023 and April 2024.

mSQUASH questionnaire

The mSQUASH comprises 17 questions in four domains: commuting activities (to/from work or school and other destinations), work (pain/unpaid) or school/study, household activities and leisure activities and sports/exercise. Patients are required to indicate whether each question is applicable (if not, they can select the non-applicable box), specify the number of days per week the activity was carried out, provide the average time (in hours and minutes) taken to complete the activity, and rate the physical demand of each activity as slow/light, moderate, or fast/high. The total mSQUASH activity score and the scores for each domain are obtained by multiplying the weekly minutes of each activity by a demand factor specific for each activity. The demand factor, which ranges from 1 to 9, is based on the Metabolic Equivalent of Task (MET) value from Ainsworth's Compendium of Physical Activities[17] and the perceived physical demand as reported by the patient. A higher score indicates a greater level of physical activity. The mSQUASH total activity score was excluded if the minutes per week of activity exceeded 6720 (representing the maximum physical activity level of 16
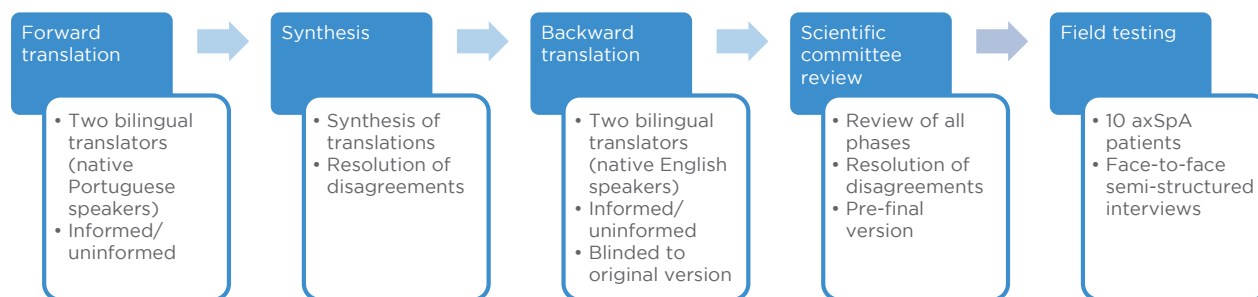

Figure 1. Flow-chart of the mSQUASH translation and cross-cultural adaptation process.

hours per day, assuming 8 hours of sleep or inactivity) [10]. A detailed guideline for data preparation, score calculation, results and interpretation can be found in the mSQUASH manual [11].

Forward translation

Two bilingual translators, both native Portuguese speakers and fluent in English, independently translated the English version of the mSQUASH, which included item content, responses and instructions. One translator had a medical background and was familiar with healthcare terminology and the instrument's construct (ACM), while the other translator had no healthcare background (FT). Each translator provided a report detailing any challenges or uncertainties faced during the translation process.

Synthesis

A bilingual member of the research team (MES), who is also a native Portuguese speaker and fluent in English, compared both forward translation versions to identify any ambiguities and discrepancies in words, sentences, and meanings. An online consensus meeting (meeting 1) was held with both translators from the forward translation phase, the third translator, and the rest of the investigation team to discuss and resolve any discrepancies. The two versions were then harmonized into a consensus version, ensuring conceptual, experiential, idiomatic and semantic equivalence between the European Portuguese version and the original English version.

Backward translation

The backward translation process involved two additional bilingual translators, both native English speakers fluent in Portuguese. One translator had a medical background and was familiar with the instrument's construct (KF), while the other translator had no healthcare background (JF). Both translators were blinded to the original English version. Each translator independently created one backward translation of the European Portuguese version of the mSQUASH into English, and both translations were compared for format, wording, grammatical structure, similarity in meaning, and relevance. A second online consensus meeting (meeting 2) was conducted with the back translators and the research team to address and resolve any inconsistencies between each version and the original English version. This phase helped clarify any words or sentences used in the forward translation.

Scientific committee review

A final online consensus meeting (meeting 3) was conducted with all four translators and the investigation team, including the developer of the original mSQUASH. Both the forward and backward translation phases were thoroughly reviewed and discussed. Any unresolved discrepancies from previous phases were debated and resolved by the entire team.

Field testing

To assess the cultural relevance, comprehensiveness, and applicability of the European Portuguese mSQUASH, we conducted semi-structured face-to-face interviews with 10 individual patients recruited from the outpatient clinic of the Department of Rheumatology at a tertiary care center. General consensus in research on health questionnaire translation suggests that 10 patients is sufficient for achieving data saturation (i.e. the point where enough data has been collected to draw necessary conclusions, and any further data collection will not produce value-added insights) [16], as observed in previous translations of the mSQUASH [12–15,18]. Included patients were required to be proficient in verbal and written European Portuguese, have a clinical diagnosis of axSpA according to their rheumatologist, and to meet ASAS axSpA classification criteria. Patients with comorbidities that could impact the assessment, such as neurological or psychiatric problems, were excluded. Sociodemographic and clinical data were collected from electronic medical records, including age, gender, education level, employment status, working place (home or other), symptom duration (time since onset of symptoms), disease duration (time since diagnosis), subtype of axSpA (r-axSpA or nr-axSpA), presence of peripheral manifestations (arthritis, enthesitis, and dactylitis), presence of EMM (AAU, IBD, and psoriasis), human leukocyte antigen B27 (HLA-B27) status, medication use, and disease activity (measured by the Axial Spondyloarthritis Disease Activity Score with CRP; ASDAS). Patients were selected to represent a diverse range of characteristics.

During the interviews, participants completed the European Portuguese mSQUASH in a quiet and private room. Participants were informed that the focus was on testing the questionnaire rather than themselves. The time taken to complete the questionnaire was recorded, along with whether the instructions were read by the participant before starting and/or while completing the questionnaire. Any questions that took longer to answer, general or specific comments made by the patient, and whether the patient checked that all questions were answered at the end were documented. No lengthy explanations were provided, and any questions or help given while completing the questionnaire were recorded. Any other relevant information, such as unanswered questions or gestures indicating difficulty in answering any question was noted. After completing

the questionnaire, patients provided feedback on its relevance, clarity, and comprehensiveness. The interviews were documented through written reports and audio recorded for transcription. Feedback from the interviews was used to refine the translation of the European Portuguese mSQUASH.

Ethical approval

The study was conducted in accordance with Good Clinical Practice guidelines and approved by the Ethics Research Committee of Nova Medical School, University NOVA of Lisboa (Approval No. 67/2023/CEFCM). Informed consent was obtained from all participating patients.

RESULTS

The European Portuguese version of the mSQUASH was translated and culturally adapted from the English version[10].

Forward translation and synthesis

The forward translation process produced two independent European Portuguese translations of the English version of the mSQUASH. Both versions were similar, with one translator using more formal language (ACM). A total of 44 minor disagreements were identified, mostly related to different wording with the same meaning (e.g., "iniciar" vs. "começar" as a translation for 'starting') or including/excluding grammatical determiners (e.g., "the" or "a"). An example of a minor disagreement was the translation of the subdomain "commuting activities", where "to commute" was translated as "trajeto" by one translator (ACM) and "percurso" by the other (FT), both having the same meaning. The team decided on "Deslocação" for better experiential equivalence, using a noun instead of a verb to culturally capture the concept of commuting accurately. "Gardening" was translated into "fazer jardinagem" for idiomatic and experiential equivalence, and "physical therapy" as "fisioterapia" for conceptual equivalence (one translator used the term "terapia física", which is a term not usually used in this context and reflects the importance of having translators with different backgrounds). Another discrepancy was the term "increased" in describing breathing pattern and heart rate, translated as "acelerado" by one translator (ACM) and "aumentado" by the other (FT). The decision was made to use "aumentado" for equivalence with the original English questionnaire.

All 44 disagreements were discussed in consensus meeting 1, with 38 resolved and 6 marked for further discussion and final approval in the scientific committee review (a preliminary decision was made to allow backward translation). For instance, the term "taking a stroll" (item 9) does not have a direct equivalent in Portuguese and was translated as "dar um passeio a pé" to emphasize walking as a leisure activity. After harmonization of both versions, the first version of the mSQUASH in European Portuguese was finalized.

Backward translation

The backward translation process resulted in two independent English back translations of the European Portuguese mSQUASH, which were compared to each other and to the original English mSQUASH by a member of the research team. The translators found the European Portuguese mSQUASH to be accurately translated, with no major doubts in interpretation.

A total of 14 minor disagreements were identified, primarily related to variations in wording with similar meanings (e.g., "cycling" vs. "riding a bicycle" or "domestic activities" vs. "household activities") or the use of grammatical determiners (e.g., "the" or "a"). These disagreements were discussed in consensus meeting 2, and it was determined that they did not affect the interpretation of the questionnaire. The European Portuguese version was deemed to have almost complete semantic, experiential and conceptual equivalence with the original English version. Therefore, no changes were made to the European Portuguese mSQUASH at this stage.

Scientific committee review

The scientific committee reviewed the forward and backward translation reports. Disagreements marked for further discussion in the synthesis phase were addressed, and previous preliminary decisions were approved based on positive feedback from the backward translation phase. The pre-final European Portuguese version of the mSQUASH was approved by all team members, including the developer of the original Dutch mSQUASH.

Cognitive debriefing

The European Portuguese mSQUASH was field-tested on 10 patients with axSpA (5 females and 5 males). The mean (standard deviation; SD) age of the patients was 49.9 (7.6) years, with an average (SD) disease duration of 16.2 (8.2) years. Half of the patients (50%) had r-axSpA, and 60% were positive for HLA-B27. Most participants had secondary or professional-level education, with 20% reporting primary education and 10% reporting university education. Employment status varied, with 40% working full-time, 20% working part-time, 10% unemployed, and 20% retired due to SpA. Regarding medication, 30% were treated with NSAIDs, while 70% were on bDMARDs. Disease activity measured by ASDAS ranged from 0.8 to 3.1, indicating varying levels of disease activity. Detailed demographic

and clinical characteristics of the participants are provided in Table I.

The median time to complete the European Portuguese mSQUASH was 4 minutes and 15 seconds (interquartile range from 3 minutes and 43 seconds to 6 minutes and 27 seconds). Eight participants (80%) read the instructions before starting the questionnaire and one participant (10%) read the instructions again while completing it. One participant (10%) checked that all questions were completed at the end of the questionnaire. Questions 6 (which requires calculating the number of working hours involving physical intensive work) and 8 (highly intensive household tasks) took longer to answer for two participants (20%), while questions 7 (light to moderate household tasks), 12 (home maintenance), 13 (shopping) and 14 to 17 (sports and exercise) took longer for one participant (10%). One participant (10%) needed explanations for all questions, two participants (20%) needed explanations for questions 6 (number of working hours involving physical intensive work) and 8 (highly intensive household tasks), and three participants (30%) needed explanations for questions 1 (walking as part of commute to/from work or school) and 14 to 17 (sports and exercise). Questions 2 and 4, which were about cycling for commuting, were left unanswered by two participants (20%), and questions 6 (number of working hours involving physical intensive work), 9 (taking a stroll), 10 (leisure cycling), 11 (gardening) and 12 (home maintenance) were left

unanswered by one participant (10%).

Overall, the questionnaire was well-received, with all participants finding the instructions and items clear and easy to complete. The responses and comments from the 10 participants were considered saturated. One participant (10%) noted that personal hygiene activities were not addressed in the questionnaire and could be physically demanding. Another participant mentioned that the questionnaire may be less applicable to individuals without a structured weekly routine. However, all participants agreed that the items were appropriate for evaluating their daily physical activity. No feedback was given regarding the time required to complete the questionnaire. Five participants (50%) mentioned that the item "Manutenção da casa" (Home maintenance) was misunderstood as household activities, which is a different subdomain covered by the questionnaire. Examples were added to clarify this item based on patient feedback. Minor spelling errors were also corrected, such as changing "days" to "hours" in questions 6 and 7. One participant (10%) mentioned that question 1 could be misinterpreted as the example (some patients answered the example before detecting question 1), and another participant (10%) reported difficulty answering questions 5 and 6 (number of weekly hours at work and how many of those involve physical intensive work) due to dyscalculia. Two participants (20%) suggested including additional examples in question 14, but the scientific committee did not find it necessary.

TABLE I. Demographic and clinical characteristics of the patients who participated in the field testing of the European Portuguese version of the mSQUASH questionnaire

Participant	Age (years)	Sex	Education	Working status	Disease duration (years)	axSpA subtype	HLA-B27	Medication	ASDAS
1	59	Female	Secondary	Full-time	22	r-axSpA	-	NSAIDs	1.4
2	36	Male	University	Full-time	15	r-axSpA	+	NSAIDs	2.4
3	60	Male	Primary	Retired due to SpA	20	r-axSpA	-	ADA	3.1
4	58	Male	Professional course	Part-time	4	nr-axSpA	+	ADA	1.0
5	46	Male	Professional course	Full-time	26	nr-axSpA	+	NSAIDs	0.8
6	49	Female	Secondary	Part-time	8	nr-axSpA	+	SEC	0.9
7	51	Female	Secondary	Unemployed	12	r-axSpA	-	ADA	2.8
8	42	Male	Secondary	Part-time	15	r-axSpA	+	ADA	2.4
9	49	Female	Primary	Retired due to SpA	10	nr-axSpA	-	ADA	2.0
10	49	Female	Professional course	Full-time	30	nr-axSpA	+	CZP	2.7

Y, years; r-axSpA, radiographic axial spondyloarthritis; nr-axSpA, non-radiographic axial spondyloarthritis; HLA-B27, Human leukocyte antigen B27; NSAIDs, nonsteroidal anti-inflammatory drugs; ADA, Adalimumab; SEC, Secukinumab; CZP, Certolizumab pegol; ASDAS, Axial Spondyloarthritis Disease Activity Score with C reactive protein.

No other specific suggestions were made.

After incorporating the patients' feedback, the final version of the European Portuguese mSQUASH was approved and finalized. The final European Portuguese mSQUASH is available in the supplements.

DISCUSSION

In this study, we translated and cross-culturally validated the European Portuguese version of the mSQUASH questionnaire, using the English version as a reference. The European Portuguese mSQUASH showed good linguistic properties and performed well in a field test with patients with axSpA. The mSQUASH, developed by modifying the SQUASH to improve measurement properties for assessing daily physical activity in axSpA patients, has demonstrated validity, reliability, and responsiveness in this population[10,19]. The questionnaire has been translated and cross-culturally validated into various languages, including English, Spanish, Turkish, French, German and now European Portuguese[12–15,18]. This instrument is a valuable clinical practice tool as it provides insight into both the amount and types of physical activity, helping clinicians and patients identify specific areas for improvement.

European Portuguese is spoken by around 15 million people worldwide[20], highlighting the importance of providing this instrument to Portuguese-speaking SpA patients. The translation process followed the five stages proposed by Beaton,[16] to ensure accuracy and reliability, which is essential for subsequent psychometric assessment[21]. We aimed to not only use bilingual but also bicultural translators,[22] which was possible for one translator in the forward phase and both translators in the backward phase. Thorough translation and cross-cultural validation are crucial for comparing responses across different cultures and languages in clinical or research settings.

The forward translation, synthesis and backward translation phases were successfully completed with minor disagreements resolved during consensus meetings. Most adjustments in the forward translation phase and synthesis were straightforward, such as adding or removing grammatical determiners. One cultural difference noted was the lower use of cycling for commuting in Portugal compared to other European countries. However, cycling was retained in the questionnaire as it is relevant for leisure activities. During the backward translation phase, the European Portuguese mSQUASH was found to be equivalent to the original English version, with no significant changes needed. The importance of having two translators with different backgrounds is evident in the translation of "physical therapy", which was inaccurately translated by the uninformed translator as "terapia física".

Field-testing results of the cognitive debriefing interviews showed that the European Portuguese mSQUASH was clear and understandable for patients. The patient sample was representative of the axSpA population, with a diverse range of clinical characteristics, including age, gender, education level, disease duration, axSpA subtype, peripheral joint involvement, presence of EMM, HLA-B27 status, medication use and disease activity. The average time required to complete the European Portuguese mSQUASH was approximately 4 minutes, encouraging its use in clinical practice. All participants reported that the Portuguese mSQUASH was clear and the language was appropriate. Question 6 (number of working hours that involve physical intensive work) took longer to answer for some patients probably due to the calculations required, and questions 14 to 17 (sports and exercise) needed clarification for a few patients who needed assurance that they could write in the questionnaire. One participant, representing 10% of the patient sample, required assistance throughout the entire questionnaire, probably due to personal factors rather than problems with the instrument, specifically his low education level (primary education) and intrinsic insecurity. Another participant disclosed having dyscalculia, a condition not previously detected during enrolment. These challenges underscore the importance of considering individual characteristics, such as age, socioeconomic status, education, and cognition, when selecting a physical activity assessment tool for patients[23]. The most significant feedback obtained from cognitive debriefing was related to the item "Manutenção da casa", translated from "Home maintenance", which was misinterpreted by 50% of participants as referring to household activities. Patient feedback was discussed with the scientific committee, and, after careful consideration, specific examples were added to this item for improved clarity. While this modification makes the Portuguese version structurally different from the English or original Dutch versions, it was deemed necessary to avoid ambiguity. The field test with 10 patients yielded sufficient comments and feedback, indicating an adequate sample size for the translation process, consistent with guidelines[22] and previous mSQUASH translations[12–15,18].

The study's strength lies in its methodological rigor, as we followed recommendations and best practices in translating and validating patient-reported outcome measures[16,22]. However, there are limitations, such as recruitment from a single center in Portugal, which limits geographical diversity, and a narrow age range of participants in the cognitive debriefing, due to some patients of other ages being unavailable for face-to-face

interviews. Despite these limitations, we believe the sample was representative of the Portuguese axSpA population, with a sufficient variation in demographic and clinical characteristics.

In conclusion, the mSQUASH has been successfully translated and cross-culturally validated into European Portuguese and performed well in a field test with ax-SpA patients. This represents an important first step in using the mSQUASH to measure daily physical activity in individuals with axSpA in Portugal. The next phase will involve assessing its psychometric properties, including test-retest reliability, construct validity, and responsiveness, to make it available for Portuguese axSpA patients, healthcare professionals, and researchers.

Acknowledgements

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mSQUASH
Questionário – Atividade física

Data:

Nome/número de estudo:

País

INSTRUÇÃO: Por favor, leia as instruções com atenção antes de começar.

Considere uma <u>semana normal no último mês</u>. Por favor, indique o seguinte:

• o número de dias por semana em que realizou as atividades descritas abaixo
• o tempo médio que demorou a realizar cada uma das atividades
• quão fisicamente exigente foi cada atividade

EXEMPLO

Deslocação de/para o trabalho ou escola	Não aplicável	Número de dias por semana	Tempo médio por dia	Exigência física
1. Caminhar como parte da deslocação de/para o trabalho ou escola	○	_5_ dias	_0_ horas _30_ minutos	✕ Lenta/ligeira ○ Moderada ○ Rápida/alta

Classificação do nível de exigência física

Lenta/ligeira:	Frequência cardíaca normal e padrão repiratório normal
Moderada:	Frequência cardíaca aumentada e padrão respiratório aumentado
Rápida/alta:	Frequência cardíaca aumentada, respiração acelerada e transpiração

INÍCIO DO QUESTIONÁRIO

Deslocação de/para o trabalho ou escola (trabalho remunerado/não remunerado ou escola/estudo)	Não aplicável	Número de dias por semana	Tempo médio por dia	Exigência física
1. Caminhar como parte da deslocação de/para o trabalho ou escola	○	____ dias	___horas___minutos	○ Lenta/ligeira ○ Moderada ○ Rápida/alta
2. Ir de bicicleta de/para o trabalho ou escola	○	____ dias	___horas___minutos	○ Lenta/ligeira ○ Moderada ○ Rápida/alta
Deslocação de/para outros destinos (exemplo: visitar alguém, ginásio ou fazer recados)	**Não aplicável**	**Número de dias por semana**	**Tempo médio por dia**	**Exigência física**
3. Caminhar de/para outros destinos	○	____ dias	___horas___minutos	○ Lenta/ligeira ○ Moderada ○ Rápida/alta
4. Ir de bicicleta de/para outros destinos	○	____ dias	___horas___minutos	○ Lenta/ligeira ○ Moderada ○ Rápida/alta

Trabalho (remunerado/não remunerado) ou escola/estudo	Não aplicável	Número de horas por semana
5. Quantas horas por semana trabalha e/ou está na escola?	○	____ horas
6. Quantas dessas horas envolvem atividade física intensa? (exemplo: carregar objetos pesados com regularidade)	○	____ horas

INSTRUÇÃO
Considere uma <u>semana normal no último mês</u>.

Classificação do nível de exigência física
Lenta/ligeira: Frequência cardíaca normal e padrão repiratório normal
Moderada: Frequência cardíaca aumentada e padrão respiratório aumentado
Rápida/alta: Frequência cardíaca aumentada, respiração acelerada e transpiração

Atividades domésticas	Não aplicável	Número de dias por semana	Tempo médio por dia	Exigência física
7. Tarefas domésticas ligeiras e moderadas (exemplo: cozinhar, lavar a loiça, arrumar)	◯	_____ dias	___horas___minutos	◯ Lenta/ligeira ◯ Moderada ◯ Rápida/alta
8. Tarefas domésticas muito intensas (exemplo: fazer as camas, pegar em crianças, limpar a casa de banho, carregar compras pesadas)	◯	_____ dias	___horas___minutos	◯ Lenta/ligeira ◯ Moderada ◯ Rápida/alta

Atividades de lazer	Não aplicável	Número de dias por semana	Tempo médio por dia	Exigência física
9. Dar um passeio a pé	◯	_____ dias	___horas___minutos	◯ Lenta/ligeira ◯ Moderada ◯ Rápida/alta
10. Andar de bicideta	◯	_____ dias	___horas___minutos	◯ Lenta/ligeira ◯ Moderada ◯ Rápida/alta
11. Jardinagem	◯	_____ dias	___horas___minutos	◯ Lenta/ligeira ◯ Moderada ◯ Rápida/alta
12. Manutenção da casa (exemplo: trabalhos de bricolage e remodelações)	◯	_____ dias	___horas___minutos	◯ Lenta/ligeira ◯ Moderada ◯ Rápida/alta
13. Ir às compras	◯	_____ dias	___horas___minutos	◯ Lenta/ligeira ◯ Moderada ◯ Rápida/alta

Desporto e exercício (exemplo: ir ao ginásio, exercícios de fisioterapia, correr, jogar ténis, jogar futebol, nadar, dançar)	Não aplicável	Número de dias por semana	Tempo médio por dia	Exigência física
14. _____	◯	_____ dias	___horas___minutos	◯ Lenta/ligeira ◯ Moderada ◯ Rápida/alta
15. _____	◯	_____ dias	___horas___minutos	◯ Lenta/ligeira ◯ Moderada ◯ Rápida/alta
16. _____	◯	_____ dias	___horas___minutos	◯ Lenta/ligeira ◯ Moderada ◯ Rápida/alta
17. _____	◯	_____ dias	___horas___minutos	◯ Lenta/ligeira ◯ Moderada ◯ Rápida/alta

Fim do questionário.
Por favor, certifique-se de que respondeu a todas as questões.
Muito obrigado pela sua participação!