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Posted Date: 27 June 2024

doi: 10.20944/preprints202406.1908.v1

Keywords: Portuguese Validation; Older adults; Falls; Ambulatory; Self-Confidence



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Article

Cultural Adaptation and Validation of the Ambulatory Self-Confidence Questionnaire (ASCQ) Portuguese Version

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Abstract: In a world where physical activity and social participation are fundamental pillars for a full, healthy, and quality life, confidence in walking emerges as a fundamental aspect to be assessed, especially in older adults. The purpose of this study was therefore to develop a Portuguese (European) version, linguistically and psychometrically adapted, of the Ambulatory Self-Confidence Questionnaire (ASCQ); A translation method was used followed by an assessment of its validity and reliability. The Portuguese version was completed by 173 older adults. To assess reliability was used Cronbach's Alpha and Intraclass Correlation Coefficients (ICC). For sociodemographic and clinical characterization, as well as for the questionnaire scoring was used descriptive statistical analysis. Pearson's correlation (r), Student's t-test and ANOVA were used to analyse the criterion and construction validity; The Portuguese interactions of ASCQ was effectively translated and adjusted, revealing exceptional internal consistency and test-retest reliability, as reflected in Cronbach's alpha and ICC values of 0.95. No Floor Effect was observed, however, a Celling Effect was identified (3.5%). Criterion and construct validity were verified because all the correlations established were statistically significant; The adaptation of the ASCQ to Portuguese culture is adequate, making it valid for use within the Portuguese population of Portugal.

Keywords: Portuguese validation; older adults; falls; ambulatory; self-confidence

1. Introduction

Over the years and with the development of technology and medicine, average life expectancy has increased and there has been an ageing population, especially in developed countries like Portugal, which is the second oldest country in the European Union. [1–7] According to data published by PORDATA, around 24% of the Portuguese population is over 65, and there has been a significant increase since 2011. [4,6]

Although the increase in longevity is appreciable, there is potential to improve the quality of the years of life gained. According to the literature, in Portugal in 2015, at the age of 65, the number of healthy life years lost (DALYs) was 4.90 for women and 3.99 for men. [4,6]

According to the World Health Organisation (WHO), a fall, defined as an episode in which an individual inadvertently moves to the floor or another level lower than their initial position and excludes collision with furniture, walls, or other structures, is undoubtedly one of the biggest problems among older adults. [8–10] Its prevalence among community-dwelling older adults is estimated to be approximately 30% each year. [11–16] Although most studies refer to people over the age of 65, people aged 50 and over often underestimate the risk of suffering a fall, yet it is the main reason for hospitalisation in this age group. [17]

Falls have multifactorial causes, including biological, environmental, behavioural, and socioeconomic factors. [9,12,14–18]

Regarding the consequences, falls can have serious consequences for the individual and can have psychological impacts, such as fear of falling and loss of confidence and, physical and social impacts, leading to a reduction in quality of life and high associated costs for the health system. These costs are estimated at around 25 billion euros per year in the European Union. [11,12,14,16,17,19,20]

There is evidence that fear of falling, which is characterised by low perceived self-efficacy or confidence in avoiding falls during essential and non-hazardous activities of daily living, is very common among the elderly, affecting between 21% and 85% of older people who have already fallen and between 33% and 46% of those with no history of falls. It is also linearly related to frailty. Knowledge of this association is crucial in clinical practice, helping in the development of screening protocols, as well as primary or secondary prevention. [21]

One of the main objectives in this population is to maintain mobility and ambulation, and one of the solutions that brings the most results is physical activity. At the same time, it also reduces the risk of injury and brings important benefits not only on a physical level but also on a psychosocial level. [3]

As mentioned earlier, the progressive ageing of the general population is one of the biggest challenges for public health. As such, health professionals such as physiotherapists are crucial in preventing falls, although they are often underestimated. [9,22] It is essential to educate the community about the preventive role of these professionals and to intervene early to reduce the modifiable risk factors for falls, thus contributing to a reduction in years lived with disability.

As advocated by the American Geriatrics Society, the British Geriatrics Society, and the American Physical Therapy Association Geriatrics (APTA Geriatrics), regular screenings are essential to identify fall risk factors early on and to develop adapted exercise plans. [23,24] These screenings include some questionnaires to collect self-reported information and include some functional tests, namely the 10-meter walking speed, timed up and go and the 30-seconds sit to stand test, in order to assess the health and mobility of older adults.

Although most assessment instruments are based on quantitative measures, self-reported information is essential for understanding fear of falling and confidence when walking, which are important factors in preventing falls. [25] Therefore, there is a clear need for instruments that capture this self-confidence during locomotion.

In 2007, Dr Miller developed a questionnaire, the Ambulatory Self-Confidence Questionnaire (ASCQ), which consists of 22 questions and aims to capture the person's self-confidence during ambulation. When it was developed, there was no instrument that assessed this aspect, which is why it has already been validated in several countries, allowing comparisons to be made between different populations, professionals from other countries to use it and transnational studies to be conducted. [26]

To the Ambulatory Self-Confidence Questionnaire be used in Portugal, it needs to be adapted to our population and its psychometric characteristics assessed, so the aim of this study is to translate it, culturally and linguistically adapt it and validate it for the Portuguese population.

According to the WHO, active ageing involves optimising opportunities for health, participation, and safety, improving quality of life and maintaining the functional capacity of older people. [4,12,27–29] Several studies have indicated that the frequency of older adults' social activities during their retired life could eliminate their feelings of loneliness and help them achieve a higher quality of life. [28]

2. Materials and Methods

This study was conducted in two phases. The first involved the translation of the instruments into Portuguese (European), and the second assessing their psychometric properties.

2.1. Phase 1: Cultural and Linguistic Adaptation

The cross-cultural adaptation of the questionnaire was conducted using a back-translation procedure, in accordance with the recommendations proposed by the Scientific Advisory Committee of the Medical Outcomes Trust. [30] Firstly, the ASCQ was translated into Portuguese by two

independent bilingual translators, considering both lexical and cultural equivalences. Both translated versions were then discussed in a first academic consensus panel. This preliminary version was then back translated into English by two other independent bilingual translators, blind to the original version. All inconsistencies between the resulting English version and the original version were examined and resolved in a second consensus panel to obtain a comprehensible and conceptually consistent instrument with the original. Finally, the preliminary Portuguese version was administered to a pilot group of 8 people who were native and fluent in Portuguese. After completing the questionnaire, the subjects gave their feedback on it to identify and correct potential difficulties in completion, comprehension, and cultural adaptation, and we obtained the final Portuguese version of the ASCQ questionnaire.

2.2. Phase 2: Validation Study

The study was approved by the Ethics Committee of the Polytechnic Institute of Coimbra (Registration code 145_CEIPC_2023) and was conducted in accordance with the ethical principles of the Declaration of Helsinki. Then, the participants provided informed consent.

2.3. Sample

A sample of 173 community-dwelling adults (age 50 and older) was recruited to determinate the reliability (internal consistency and test-retest reliability) and the validity of the Portuguese ASCQ. The study included a convenience sample of adults aged 50 or over, living in the community, having the ability to complete the screening, who took part in fall risk screening actions advertised in the usual places (municipalities and associations) in the centre of Portugal. Participants were excluded from the study if difficulty in understanding the instructions for conducting the functional tests, raised doubts about their cognitive ability/dementia and/or depression and, finally, people who, despite their nationality, were not fluent in Portuguese.

2.4. Procedures

The data collection was conducted between February and March 2024, with the purpose of assessing the psychometric properties of the ASCQ's Portuguese adaptation. After signing the informed consent, all eligible participants completed the FallSensing protocol's questionnaires and the functional tests. To which was added the translated and adapted Portuguese version of the ASCQ.

2.5. Reliability

According to the literature, the sample size was determined following the recommendations of having 4 to 10 participants for each item in the questionnaires. [31]

Reliability was assessed by the internal consistency (Cronbach's Alpha) and test-retest reliability, by the intraclass correlation coefficients (ICC).

To ascertain test-retest reproducibility, a sub-sample of 30 people signed a new informed consent form stating that they authorised and would be available to answer the ASCQ again by telephone, 8 to 10 days after the face-to-face screening. In addition, it was also ensured that there were no health events during this period (accident, fall, illness,).

2.6. Content validity

Content validity assesses whether the questionnaires are understood and whether all important and relevant items have been included.

Besides to an expert panel revision of the ASCQ items, content validity was calculated using the Floor and Ceiling Effects. If more than 15% of the participants gives minimum or maximum scores, the instrument is biased. [32]

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2.7. Criterion Validity

Criterion validity assesses the accuracy with which a test measures the outcome it was designed to measure. A measuring instrument, such as a questionnaire, has criterion validity if its results converge with those of another instrument that has already been validated and is called the "gold standard". [33] Therefore, criterion validity was assessed by comparing the mean total scores of the ASCQ with the fear of falling and the Profile of Activities and Participation related to Mobility (PAPM) and Exercise Self-Efficacy Scale.

2.8. Construct Validity

The construct validity refers to the accuracy with which a test measures the concept it was designed to measure, and hypotheses are usually generated, which are then tested to support the validity of the instrument. [34] So, this validity was estimated through several hypotheses that we established, namely that individuals that used walking aid, with a greater history of falling, frailty and/or consumed four or more drugs, including benzodiazepines, would have lower scores on the ASCQ and that there is a correlation between individuals with lower self-confidence in walking and poorer functional tests.

2.9. Measures

To assess the ASCQ validity, FallSensing protocol was used. It includes several questions and functional tests, namely: history of falls, fear of falling, self-perceived health, frailty, polypharmacy, benzodiazepines, 30 Seconds Sit-To-Stand (30sSTS), 10-Meter Walking Speed (10-MWS), Timed Up and Go Test (TUG), Exercise Self-Efficacy Scale, PAPM¹⁷ and ASCQ.

2.10. Ambulatory Self-Confidence Questionnaire (ASCQ)

The ASCQ consists of 22 items and aims to assess an individual's self-confidence during ambulation in different environments and contexts in the community. The response options vary on a scale between 0 (no confidence) and 10 (total confidence). The average score is calculated (between 0 and 10) by adding up all the answers and then dividing by the number of questions and higher scores indicate a higher level of confidence during ambulation. [25,26]

2.11. Data Analysis

Data analysis was performed using descriptive statistics with IBM SPSS Statistics 29.0 for Windows.

For sociodemographic and clinical characterization, as well as questionnaire scores, descriptive statistical analysis was employed, including measures of central tendency (Mean or M), dispersion (Standard Desviation or SD, Maximum or Max, and Minimum or Min), and absolute (n) and relative (%) frequencies. Pearson's correlation (r) was used for the analysis of correlations and the T-student test and ANOVA were used for the analysis of the differences between groups. The Pearson's correlation coefficient values: 0.9-1.0 very strong, 0.70-0.89 strong, 0.40-0.69 moderate, 0.10-0.39 weak, and 0.00-0.19 negligible. [35] In terms of reliability was assessed by Cronbach's Alpha and Intraclass Correlation Coefficient (ICC) and values above 0.70 and 0.75, respectively, are good and indicate good internal consistency and good test-retest reliability. [36,37]

The interpretation of statistical tests was conducted based on a significance level of 0.05 (p \leq 0.05), with a confidence interval of 95%.

3. Results

The Portuguese version of the ASCQ was satisfactorily adjusted in terms of semantic, concept, language, and equivalence to the national culture.

The translation was conducted as planned. The content validity of the Portuguese version of ASCQ was warranted through collaborative revisions involving experts and the older adults who took part in the screenings. During the screenings, all participants demonstrated a clear understanding of the questionnaire items. There were no difficulties in understanding any of the words or questions, so no changes were necessary. All participants answered to all items in the Portuguese version of the ASCQ questionnaire, and no missing items were found. The structure of the original version remained intact in the final adaptation of the ASCQ questionnaire into Portuguese.

3.2. Psychometric Validation of the Portuguese Version of the ASCQ

3.2.1. Sample

A total of 173 community dwelling adults aged 50 or over, 119 (68.8%) female, mean age 66.83±8.7 (validity sample) and 65.73±7.66 (reliability sample), 6.9% used a walking aid, 45.1% have fallen in the last 12 months and more than half (52%) reported a fear of falling. In addition, 35.8 % of the individuals had a risk level of 3 (high risk of fall), the mean score of self-perceived health was 3.71±1.0, 54.9% consumes four or more medications, include, benzodiazepines (27.2%). Finally, 35.8% of total living alone and 15.0% were frailty. (Table 1)

About measure samples, the average score was: 12.82 on the self-efficacy for exercise scale, 0.49 on the PAPM, 9.27 on the TUG, 13.54 on the 30sSTS and, finally, 1.52m/s on the walking speed assessed by 10-MWS (Table 1).

Table 1. Sociodemographic and functional data of the reliability and validity sample.

Characteristics	Validity Sample (n=173)	Reliability Sample (n=30)
Age, mean±SD	66.83±8.7	65.73±7.7
Woman, N (%)	119 (68.80)	19 (63.3)
Walking aid, N (%)		
None	161 (93.1)	30 (100)
Cane	6 (3.5)	-
Crutches	5 (2.9)	-
Sticks	1 (0.6)	-
≥ 4 medications, N (Yes %)	95 (54.9)	16 (53.3)
Benzodiazepines, N (Yes %)	47 (27.2)	12 (40)
Highest education completed, N (%)		
1º cycle	66 (38.2)	11 (36.7)
2º cycle	24 (13.9)	-
3º cycle	32 (18.5)	7 (23.3)
Secondary	25 (14.5)	8 (26.7)
Degree	4 (2.3)	2 (6.7)
Master	5 (2.9)	1 (3.3)
Doctorate	5 (2.9)	-
Living alone, N (%)	62 (35.8)	9 (30)
Frailty, N %	26 (15.0)	2 (6.7)
Risk level, N (%)		
1 Low	54 (31.2)	10 (33.3)
2 Moderate	57 (32.9)	13 (43.3)
3 High	62 (35.8)	7 (23.3)
Self-Perceived Health, mean±SD	3.71±1.0	4.47±0.9
Faller (the past 12 months), N (%)	78 (45.1)	14 (46.7)
Fear of falling, N (Yes %)	90 (52.0)	14 (46.7)
Self-efficacy for exercise, mean±SD	12.82±4.9	13.40±3.9
PAPM, mean±SD	0.49 ± 0.8	0.13±0.3

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TUG, mean±SD	9.27±3.3	7.40±2.2
30sSTS, mean±SD	13.54±4.3	15.30±4.6
10-MWS, mean±SD	1.52±0.4	1.66±0.4

Abbreviations: PAPM: Profile of Activities and Participation related to Mobility; TUG: Timed Up and Go; 30sSTS: 30 seconds Sit to Stand; 10-MWS: 10-Meter Walking Speed.

3.2.2. Realibility

The total sample size was 173 older adults, which corresponds to 7.9 people per questionnaire item, and is therefore within the size recommended by the literature. The Portuguese version showed excellent internal consistency, as indicated by the Cronbach's Alpha coefficient of 0.95, and the intergroup correlation coefficient (ICC) was 0.95 (p<0.001).

3.2.3. Content Validation

Content validity was, firstly, established through a review conducted by a panel of experts during the adaptation process and feedback from the population during the screening. The expert panel reached a consensus that the questionnaire presented all the relevant questions, and no additional questions were incorporated beyond those in the original version. The target population indicated that the questionnaire was understandable. As can be seen in Table 2, all the items in the adaptation match those in the original version and the average scores are also similar. None (0%) of the participants gave the minimum score and 6 (3.5%) gave the maximum score to the ASCQ.

Table 2. Descriptive data for the ASCQ items, validity sample (Portuguese version and original) and reliability sample.

	Item	Validity Sample	Realibility sample	
		(n=173)	(n=30)	
1	Subir para um passeio?	8.25±2.6	9.13±1.4	
1	Step up onto a curb?	8.79 ± 2.4	9.13±1.4	
2	Descer de um passeio?	8.05 ± 2.6	8.93±1.5	
۷	Step down off a curb?	8.57 ± 2.4	6.95±1.5	
3	Subir uma rampa (inclinação ligeira)?	7.65 ± 2.8	8.57±1.8	
	Walk up a ramp (mild incline)?	9.40±1.6	6.57±1.6	
4	Descer uma rampa (inclinação ligeira)?	7.53 ± 2.7	8.30±1.9	
4	Walk down a ramp (mild incline)?	9.26±1,7	6.50±1.9	
5	Subir um lance de escadas (4 degraus ou mais) com um corrimão?	8.02 ± 2.6	8.80±1.4	
	Walk up a flight of stairs (4 steps or more) with a handrail?	8.99±2.3		
	Descer um lance de escadas (4 degraus ou mais) com um	7.88±2.6		
6	corrimão?	7.00±2.0	8.70±1.5	
	Walk down a flight of stairs (4 steps or more) with a handrail?	8.79±2.3		
	Atravessar uma rua, numa passadeira, com semáforo de peões	8.79±2.3		
7	(cronometrado)?	0.7 7 ± 2.0	9.30±1.1	
	Cross a street with a timed crosswalk (walk signal)?	9.25±1.7		
	Atravessar uma rua, numa passadeira, sem semáforo de peões	8.10±2.6		
8	(cronometrado)?	0.1022.0	8.73±1.2	
	Cross a street without a timed crosswalk (walk signal)?	8.57±2.5		
9	Andar num passeio desnivelado?	6.82±2.9	7.47±2.0	
9	Walk on an uneven sidewalk?	7.96 ± 8.0		
10	Andar na relva?	8.61±2.5	9.27±1.3	
	Walk on grass?	8.45±2.5	7.27 ±1.0	
11	Andar num pavimento escorregadio?	4.16±3.1	5.70±2.2	
11	Walk on slippery ground?	6.12±3.2		
12	Andar no escuro ou à noite quando é difícil ver os seus pés?	5.34±3.7	6.70 ± 2.4	

	Walk in the dark or at night when it is difficult to see your feet?	7.51±2.9		
13	Atravessar um lugar com muita gente?	7.37±3.1	8.50±1.9	
	Walk through a crowded place?	8.34 ± 2.3	8.30±1.9	
14	Andar e falar ao mesmo tempo com um acompanhante?	8.18 ± 2.6	6 8.63±2.2	
	Walk and talk to a companion at the same time?	8.60 ± 2.3	0.03±2.2	
15	Carregar pequenos objetos enquanto caminha?	7.65±3.1	8.53±2.3	
	Carry small items while walking?	8.60 ± 2.7		
-	Parar de andar de forma súbita para evitar um veículo que vem na	7.80±3.1		
16	sua direção?	7.00±5.1	8.57±1.9	
	Stop walking suddenly to avoid an oncoming vehicle?	8.67±2.2		
17	Usar uma escada rolante?	7.72±3.3	8.50±1.5	
1,	Use an escalator?	8.51±2.8		
18	Usar um tapete rolante em movimento?	7.82±3.2	8.77±1.3	
10	Use a moving sidewalk?	8.43±2.8		
19	Movimentar-se dentro de um autocarro em movimento?	6.20±3.6	6.40±3.0	
17	Walk on a moving bus?	6.86±3.2		
20	Ir de uma divisão a outra na sua casa?	9.57±1.3	9.83±0.5	
	Walk from one room to another in your home?	9.61±1.2	7.0020.0	
21	Andar uma distância curta sem parar?	9.46±1.4	9.73±0.7	
	Walk a short distance without stopping?	9.35±1.9)., <u>G</u> _0.,	
22	Andar uma distância longa sem parar?	8.65±2.3	8.70±2.0	
	Walk a long distance without stopping?	8.74±2.7	o., oo	
Total ASCQ score		7.70 ± 2.0	8.44±1.1	
	1011111000 00010	8.52±1.7		

3.2.3. Criterion and Construct Validity

The comparison of the ASCQ with the other variables, assessed through Pearson correlation, T-student test and ANOVA is presented in Table 3.

Table 3. Associations and differences between groups to assess the criterion validity and the construct validity.

	ASCQ			
	(mean±SD)			
	N=173	r	Z	p
Walking aid				
Yes (n=14)	5.50±2.5			≤0.001
No (n=159)	7.90±1.8			≤0.001
Faller (the past 12M)				
Yes (n=78)	7.17±2.1			≤0.001
No (n=95)	8.14±1.8			≤0.001
Fear of falling				
Yes (n=83)	6.89±2.1			≤0.001
No (n=90)	8.59±1.4			≤0.001
Frailty (weight loss)				
Yes (n=26)	6.52±2.7			≤0.001
No (n=147)	7.92±1.8			≤0.001
≥4 Medication				
Yes (n=95)	7.14±2.1			≤0.001
No (n=77)	8.38±1.7			≤0.001
Benzodiazepines				
Yes (n=47)	7.70±1.7			≤0.005
No (n=81)	8.32 ± 1.4			≤0.005

Risk level		25.04	≤0.001
TUG	0.609		≤0.001
30sSTS	0.423		≤0.001
10-MWS	0.531		≤0.001
PAPM	0.691		≤0.001
Self-efficacy for exercise	0.455		≤0.001
Self-Perceived Health	0.453		≤0.001
ASCQ home	0.909		≤0.001

Abbreviations: TUG: Timed Up and Go; 30sSTS: 30 seconds Sit to Stand; 10-MWS: 10-Meter Walking Speed; PAPM: Profile of Activities and Participation related to Mobility; ASCQ: Ambulatory Self-Confidence Questionnaire.

In Table 3, it was confirmed moderate correlations of the Portuguese version of the ASCQ with other questionnaires and differences between the groups who reported being afraid of falling and not being afraid of falling were statistically significant. The Pearson correlations between the ASCQ and the PAPM was r=0.691 (p<0.001).

A lower ASCQ score was observed in individuals who used walking aids, had a history of falls, had frailty, took four or more medications per day, took benzodiazepines, and had a higher risk level. All these differences between groups were statistically significant. In addition, the correlation between the ASCQ and other measures was assessed using Pearson's coefficient, being observed moderate correlations with the TUG (r=0.609), the 30sSTS (r=0.423), 10-MWS (r=0.531), self-perceived health (0.453), and very strong correlation with the ASCQ answered by telephone (r=0.909).

4. Discussion

The progressive ageing of the population in general is one of the biggest challenges for public health and has some negative aspects associated with it, namely the increased risk of falling and the consequent decline in social participation and quality of life. Therefore, the development of effective fall prevention and management strategies is a priority objective worldwide and health professionals, particularly physiotherapists, have or should have an active role in this process.

The ability of older adults to move around safely and independently is one of the most important skills for maintaining a good quality of life and requires a combination of many different functions and skills, including physical, psychosocial, and environmental conditions. [24] Therefore, measuring ambulatory confidence can be important. To do this, there need to be instruments that can help assess this parameter. Until 2007, there were few or no instruments that gave us self-reported information, which is why Dr Miller developed the Ambulatory Self-Confidence Questionnaire (ASCQ). [25] However, for it to be viable in a clinical and research context in Portugal, it needs to be validated and adapted linguistically and culturally for our population.

On the linguistic side, it was crucial to maintain the original context, meaning, instructions and presentation of the questionnaire to ensure adequate equivalence. The Portuguese version of the ASCQ received excellent agreement among experts regarding the relevance of the questions. It underwent revisions by independent bilingual translators and was pilot tested, revealing no inconsistencies, which confirms its excellent content validity. As expected, the reliability of the Portuguese version of the ASCQ was confirmed by the excellent Cronbach's alpha and ICC values. As confirmed by the ceiling and the floor effects, the ASCQ is not biased. [32]

There were correlations between the ASCQ, the PAPM and self-efficacy for exercise, as well as differences between the groups who reported being afraid of falling and not being afraid of falling. This difference is justified by the fact that fear of falling leads to limitations in activities, which in turn leads to restrictions in social participation and the perception of less health, which consequently results in lower self-confidence. [23] These results proved its criterion validity, which demonstrates that the ASCQ is an accurate instrument and measures the outcome it was designed to measure, namely confidence to walk. [33]

Regarding construct validity, the previously established hypotheses were confirmed, i.e., there were differences between the groups of those who had and those who did not have a history of falling (HoF). The rationale for these hypotheses is based on the evidence that HoF is a risk factor for falling and it is the strongest predictor of future falls. [23]

Another hypothesis that was confirmed was the association between the ASCQ and taking four or more medications, including benzodiazepines. There is evidence that approximately 20.3% of adults aged 55 or over who take four or more medications or older people who take more than three or four medications, especially antidepressants and benzodiazepines, have an increased risk of recurrent falls. [38,39]

In addition to these, there was also an association between the ASCQ score and frailty, what is justified by the fact that frailty and fear of falling are linearly related and, as such, individuals who are frailer have less self-confidence in walking, which is reflected in the average score on the questionnaire. [40] It was also evident that individuals who used walking aids and who had a higher level of risk had lower scores on the questionnaire.

Finally, regarding the functional tests, there was a moderate correlation of the ASCQ and the TUG, the 30sSTS, the 10-MWS and self-perceived health, and a very strong correlation with the ASCQ completed at home, 8 to 10 after the face-to-face screening.

The strengths of this study are linked to the size of the sample, which is within the parameters recommended by the literature for this type of study, and the commitment and collaboration of the sub-sample who were invited to answer the questionnaire few days after the face-to-face screening, with 100% adherence. On the other hand, with regard to limitations, one of them is related to recruitment bias, i.e., the fact that the sub-sample used to assess test-retest reproducibility was invited by the researcher for convenience and, also related to the sub-sample, it was the fact that the ASCQ baseline data for the reliability analysis was collected in the presence of the researcher, unlike the follow-up data. Although the researcher did not interfere in filling in the ASCQ, there was no way of controlling the influence of the participant's friends or family on the follow-up.

5. Conclusions

The results of this study confirm the reliability and support the validity of the Portuguese version of the ASCQ for community-dwelling older adults. The Portuguese version of the ASCQ has semantic, conceptual, idiomatic, and content equivalence when compared to the original version. Criterion validity and construct validity were proved. One of the most important skills for maintaining high levels of functioning and social participation in an ageing population is promoting the ability and confidence to walk safely and independently. This questionnaire, designed to assess self-confidence in walking, is a useful and easily applicable tool, in a clinical context, community-based context and for scientific research in several fields, namely in active and healthy ageing.

Supplementary Materials: The following supporting information can be downloaded at the website of this paper posted on Preprints.org. The raw data supporting the conclusions of this article will be made available by the authors on request due to privacy and ethical reasons.

Author Contributions: Conceptualization, M.T., M.L. and A.C.M.; methodology, M.T., M.L. and A.C.M.; validation, M.T., M.L. and A.C.M.; formal analysis, M.T.,M.R.,C.C. and A.C.M.; investigation, M.T., M.R. and C.C.; data curation, M.T.; writing—original draft preparation, M.T.; writing—review and editing, M.T. and A.C.M.; supervision, A.C.M.; project administration, M.T., M.R. and C.C.

Funding: This research received no external funding.

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki, and approved by the Institutional Ethics Committee of the Polytechnic University of Coimbra (CEIPC), on the 27th December 2023, in Portugal (Registration code 145_CEIPC_2023).

Informed Consent Statement: All participants provided informed consent prior to survey initiation.

Data Availability Statement: The data presented in this study are available on request from the corresponding author due to privacy and ethical reasons.

Conflicts of Interest: The authors declare no conflicts of interest.

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