

### Kertas Asli/Original Articles

## Cultural Adaptation and Validation of the Performance Assessment of Self-care Skills among Older People in Community (Adaptasi Budaya dan Kesahan Penilaian Prestasi Kemahiran Penjagaan Diri dalam Kalangan Warga Emas di Komuniti)

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#### ABSTRACT

*The Performance Assessment of Self-care Skills (PASS-Home) is a client-centered, performance-based, criterion-reference, observational form designed to capture client's performance skills in completing daily task activities. The aim of the study was to describe the process of translating, adapting and validating the PASS-Home from English language version into a Malay language version. The development of the translated Malay version of the PASS-Home consisted of two stages. Stage one involved the exclusion of the items that were not culturally relevant to the Malaysian culture. Stage two involved the translation process. The five steps of the cross-cultural adaptation process were followed: (1) initial forward version; (2) a summary of recommendations by the expert panels; (3) the back-translation; (4) modifications of the translated Malay version of PASS and a summary of problems found during the pre-testing, and (5) the final version of the PASS Malay Version (M-PASS). A total of five items from the PASS-Home were omitted in the Malay version (M-PASS) and another five items that were considered as suitable in Malaysian context were added in the M-PASS. The Content Validation Index (CVI) showed perfect agreement with an average of I-CVI was reported at 0.99 and S-CVI/universal agreement (S-CVI/UA) was at 0.93. Test-retest reliability showed that the M-PASS were highly reliable reported of its three main constructs of Independence (ICC=0.706), Safety (ICC=0.906) and Adequacy (ICC=0.950). M-PASS showed strong evidence as a valid and reliable assessment in evaluating the functional level of older people who live independently in community.*

*Keywords: Instrument; independent; society; functional level; older people*

#### ABSTRAK

*Penilaian Prestasi Kemahiran Penjagaan Diri (PASS-Rumah) adalah penilaian yang berpusatkan kepada klien, berdasarkan prestasi, rujukan kepada kriteria dan penilaian pemerhatian yang dibina untuk menilai kemahiran prestasi klien dalam menjalankan aktiviti harian. Tujuan kajian ini dijalankan adalah untuk menterjemah, mengadaptasi dan mengesahkan PASS-Rumah dari versi Bahasa Inggeris ke versi Bahasa Melayu. Pembinaan terjemahan PASS-Rumah mengandungi dua peringkat. Peringkat pertama melibatkan pengecualian item yang tidak relevan dengan budaya di Malaysia. Peringkat kedua melibatkan proses terjemahan. Lima Langkah proses adaptasi silang budaya yang terlibat ialah; (1) versi asal diterjemah ke versi Bahasa Melayu; (2) cadangan ringkasan oleh panel pakar; (3) versi Bahasa Melayu di terjemah semula ke Bahasa Inggeris; (4) pengubahsuaian PASS versi Bahasa Melayu dan masalah yang dihadapi semasa ujian pra dan (5) versi Bahasa Melayu yang muktamad (PASS-Rumah). Sebanyak lima item dari PASS versi asal Bahasa Inggeris telah dikeluarkan dan lima item lain yang bersesuaian dengan konteks Malaysia telah dimuatkan di dalam PASS-Rumah. Indeks Kesahan Kandungan (CVI) menunjukkan persetujuan dengan nilai I-CVI adalah 0.99 dan S-CVI/perjanjian universal (S-CVI/UA) adalah 0.93. Ujian uji ulang uji menunjukkan nilai kebolehpercayaan yang sederhana dan tinggi iaitu Keberdikarian (ICC=0.706), Keselamatan (ICC=0.906) dan Kecukupan (ICC=0.950).*

*Kata kunci: Instrumen; keberdikarian; masyarakat; tahap kefungsi; warga emas*

## INTRODUCTION

In Malaysia, the demographic transition that has taken place in recent years is expected to continue to change especially in terms of age structure, fertility and distribution. People aged 60 years and above are currently the fastest growing populations globally (Mohanty et al. 2012; World Health Organization, WHO 2018). Populations of 65 years old and above in Malaysia increases significantly from 5.0% in 2010 to 14.5% in 2040 (Department of Statistic Malaysia 2016). This indicates that Malaysia will become an ageing nation by that year. This demographic transition is due to the decrease in birth rates and mortality rates, as well as the advancement of healthcare services that generally helps to prolong life span (Department of Statistic Malaysia 2016; Syed Abdul Razak 2009). The increase in the number of older adults and a decrease in younger age groups is also expected to happen globally (Syed Abdul Razak 2009; WHO 2018). The increase number of older people may also leads to an increase in the ratio of older to younger workers. In 2020, there will be a 1:10 ratio of older to younger workers, whereas currently the ratio is 1:15 (Syed Abdul Razak 2009). Consequently, the number of older people living alone will also increase. Statistics in Malaysia show that the number of older people living alone in 1991 was 5.2 percent and it has increased to 7.4 percent in 2001 (Syed Abdul Razak 2009). It is predicted that the number of older people living alone will increase even higher in the coming years. This should attract attention from various parties and relevant agencies as it can have big implications on the overall development of the country and related policies pertaining to this population. These implications can be in terms of budget allocations in ensuring better health care, appropriate social and emotional supports most needed by this population, as well as creating better living environment in order to encourage continuous and active participation among older people in community. Healthcare service providers, such as, community occupational therapists and primary healthcare occupational therapists play a major roles in ensuring continuous active participations and safety in community amongst older people (Lai et al. 2009; Turcotte et al. 2018). Hence, occupational therapists should be equipped with appropriate tools and knowledge to perform assessments and interventions in order to take up challenges in this older population (Hasegawa et al. 2018). Therefore, independent and safety in terms of managing basic activity of daily living (BADL) as well as more complex daily activities such as performing retail purchases, using public transportations and others which also known as instrumental activity of daily living (IADL) are important for older people who live alone in the community, as well as for

those who stay with their family (Turcotte et al. 2018). To ensure their ability to do so safely and effectively, an assessment of the older people's ability to manage their day-to-day activities are important. In addition, such assessment should be occupation-based, as well as appropriately reflect the situation and environment that is suitable with the culture and activities performed and participated by the older people in their local context (Romli et al. 2019).

Different types of instrument have been developed in research when identifying the aspect of IADL. Various instrument is intended to be used effectively among older adults in various settings such as *Katz Index of Independence in Activities of Daily Living* (Katz 1983), the performance adequacy was ranked in six functions of bathing, dressing, toileting, transferring, continence and feeding. Another appropriate instrument that can be used to assess IADL is *Lawton Instrumental Activities of Daily Living* (Lawton & Brody 1969). It can be used as a baseline assessment and post assessment to compare function and there are eight domains; ability to use telephone, shopping, food preparation, housekeeping, laundry, mode of transportation, responsibility for own medication and ability to handle finances. Performance Assessment of Self-Care Skills (PASS) is one of the well known instruments that is used in assessing the ability of performing daily activities (Holm & Roger 2008).

Although there are few culturally relevant assessment tools in IADL that can be used in a Malaysian context (Yunus et al. 2013) but PASS was considered to be the most appropriate to meet the need for the current study. It is not only assessing the ability to perform instrumental activities of daily living, but also basic activities of daily living. In addition to these, it is considering 3 main constructs: independence, safety and adequacy. This helps occupational therapists to document functional status and occupational performance changes of the respondents (Holm & Roger 2008; Chisholm et al. 2014). However, no published studies based on the PASS-Home Malay version were reported. Many other assessments have been translated into Malay version to meet the cultural and Malaysian context (Kadar et al. 2018, Razaob et al. 2020, Mohd Fauzi et al. 2020, Mohd Fauzi et al. 2015). Therefore, in this current study, the adaptation and validation process was performed on the assessment form of PASS-Home in order to achieve that purpose.

## PERFORMANCE ASSESSMENT OF SELF-CARE SKILLS (PASS)

PASS is an observational tool and performance-based

evaluation form consisted 26 basic and complex daily activities tasks categorized into four functional domains: (1) 5 tasks on functional mobility, (2) 3 tasks on basic self-care activities (BADL), (3) 14 tasks on cognitive-instrumental daily activities (CIADL), and (4) four tasks on physical instrumental daily activities (PIADL). The PASS can be administered by health professional/therapist through the criterion-referenced (person is rated according to the observation on the person's performance). It can be used alone or combination of the related domains. There are two versions; clinic and home. These two versions are identical for all the task, however, the materials for some activities are different. PASS-Home version is commonly used to measure the level of assistance needed by the respondents to ensure their safety at home (Holm & Roger 2008). Each item is scored on a predefined 4 point (0-3) ordinal scale for three score: independence, safety and adequacy. Higher score indicates higher level of independency level, safe practices and subtasks performed precisely. For independence data, there are 10 hierarchical types of assistance provided by the examiner: verbal supportive, verbal non-directive, verbal directive, gesture, task object or environmental rearrangement, demonstration, physical guidance, physical support and total assist. The permission to use the PASS can be obtained from the developer of the PASS (Holm & Rogers 2008)

The construct validity of the PASS was established from multiple investigations among older people with depression (Chisholm 2005), female heart failure older people and female healthy older people (Raina 2005) and older people female with knee osteoarthritis and healthy female older people (Rogers et al. 2001). The test-retest reliability of the PASS was administered among 20 older people with 3 days intervals (4 respondents from each of the following diagnosis: osteoarthritis, heart failure, dementia and depression) (Holm & Rogers 2008). In addition, the inter-observer reliability was established among 25 older people with the same diagnosis categories. Overall, the PASS demonstrated good to excellent reliability, its sensitivity to change over time and method effect (Holm & Rogers 2008). The PASS was firstly design for adult population; however, it has been used to measure the changes of functional status in adolescents and adults from various populations with depression, dementia, developmental delay, stroke etc. (Holm & Rogers 2008).

## METHODOLOGY

### STUDY DESIGN

This was a cross-sectional study performed in two stages for adapting the original Performance Assessment of Self-

Care Skills (PASS) into Malaysian context. This study involved two stages: 1) tasks evaluation process on the PASS-Home form, 2) the cross-cultural adaptation process which was conducted in five steps: a) initial forward version; b) a summary of recommendations by the expert panel; c) the back-translation; d) modifications of the translated Malay version of PASS and a summary of problems found during the pre-testing, and e) the final version of the PASS Malay Version (M-PASS) (WHO 2017). The steps of the translation and adaptation process of the M-PASS is shown in Figure 1. Prior the beginning of the study, permission from the author Holm and Rogers (Holm & Roger 2008) was obtained and ethics was granted from The Medical Research and Innovation Secretariat, a large public university. This study was supported by the Ministry of Education, Malaysia under the Fundamental Research Grant Scheme [FRGS/1/2019/SS06/UKM/02/8] and with a project number NN-005-2014.

### STAGE 1: TASKS EVALUATION PROCESS ON THE PASS-HOME FORM

The process of adapting the PASS-Home form was performed by removing certain items that were deemed unsuitable and including some functional tasks that were considered as suitable and strongly related in Malaysian context (Hamed et al. 2012). The decision was done through discussion with researchers in the team before the form was translated into the Malay language. Researches involved were academicians in the area of occupational therapy. The discussion was held in the meeting room and field notes were made by the researcher during the discussion session to record important information such as the date, time and comments and suggestions from the researchers. Overall, all researchers agreed with the items exclusion in the PASS that were inappropriate to the Malaysian context.

### STAGE 2: CROSS-CULTURAL ADAPTATION PROCESS

#### Step A: Forward translation process

The translation process was conducted according to the WHO Process of translation and adaptation of instruments (WHO 2017). Purposive sampling was used to recruit the translators that fulfilled the inclusion criteria: (1) native speaker, (2) individual with minimum level of education of bachelor's degree and (3) bilingual in Malay and English. A total of three female translators aged between 40 to 59 years old with the qualification level of Education Bachelor's Degree was participated in this study. All

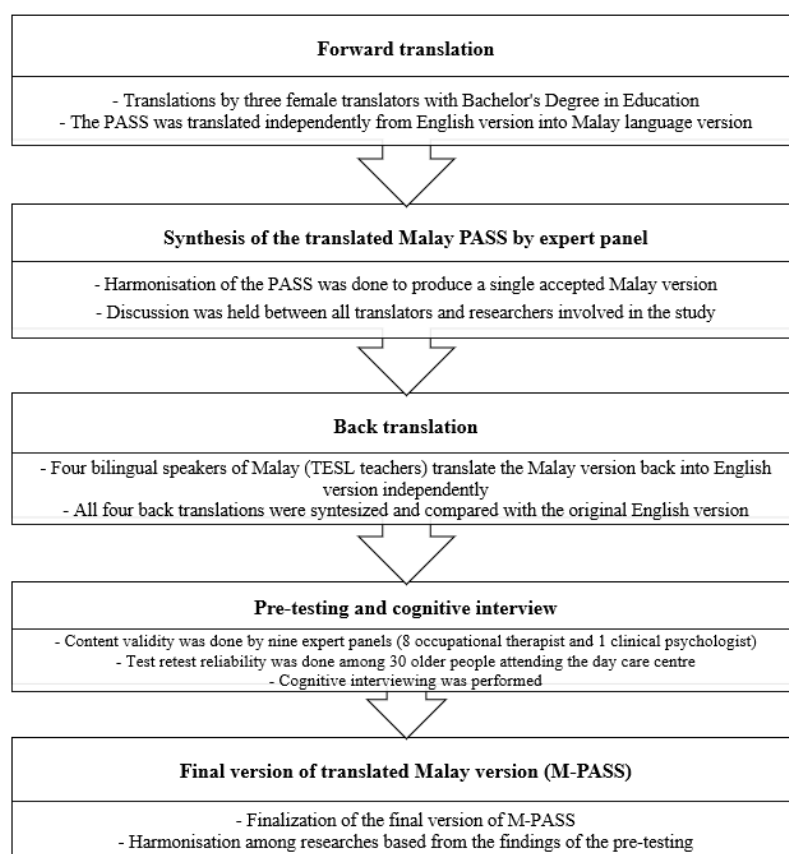


FIGURE 1. The translation and adaptation process of the M-PASS

translators were unfamiliar with the content of the PASS to reduce potential bias on the part of the translations. In this step all components in the PASS-Home were translated.

Step B: A summary of recommendations by the expert panel of the translated Malay version

After the forward translation, a discussion was held between all translators and researchers to meet the consensus on the most accurate meaning and intent of the translated version. The synthesis process involved the review process of the source version and the targeted version and any inconsistencies of the word or sentences were noted. Harmonisation of the PASS was done to produce single version of Malay translated form (M-PASS). The content of the translated Malay version of the PASS-Home were remain intact for the purpose of the next step which was the back translation.

Step C: The back translation from Malay language into English language

Similar to step A, translators were recruited based on the inclusion criteria: (1) a native Malay speaker, (2) Majoring in Teaching English as Second Language (TESL), (3)

individual with minimum level of education of Bachelor's Degree, iv) bilingual in Malay and English (4) unexposed to the original version of PASS-Home. A total of four TESL teachers with working experiences of between 8 to 26 years was participated in this step. The translators were instructed to translate the translated M-PASS into its original English version. Each translator generated the three back translations independently to ensure content consistency by different translators (Beaton et al. 2000). Improvement of the M-PASS was made if there were any discrepancies in its content or intent.

Step D: Modifications of the translated Malay version of PASS and a summary of problems found during the pre-testing

A content validity process of the M-PASS was performed immediately after the step 3. Only panel experts who fulfilled the inclusion criteria was recruited for this step. Nine of expert members were from healthcare sector: eight members were occupational therapist with working experience 3 to 6 years and one clinical psychologist with working experience more than 10 years. Out of 8 occupational therapists, 1 diploma's degree, 6 bachelor's degree and 1 master's degree. All panel members were

given a copy of: (1) the original PASS-Home, (2) M-PASS and (3) feedback form for content validity index (CVI). The panels were asked to review and rate the CVI form based on these four elements: (1) relevancy, (2) clarity, (3) simplicity, and (4) no ambiguity of the translated items/tasks. The panels were also invited to give their written opinions on each task retained as well as on the suitability of the tasks added in the M-PASS. These added items/tasks were specified and explained to the expert reviewers on its justification to be included in the M-PASS.

Content Validity Index (CVI) was performed to calculate the level of the agreement of the raters (Polit & Beck 2006; Zamanzadeh et al. 2014). The scale used in the CVI was a 4 point likert-type scale, measuring regarding to the relevancy, clarity, simplicity and no ambiguity of the adapted M-PASS. For example, the relevancy criteria are scored at; 1=not relevant, 2= items need some modifications, 3=relevant but requires some modifications, and 4=relevant. The score was calculated on those items marked as 3 and 4 by the experts as it was counted as 'legal content' while scores of 1 and 2 are counted as 'invalid content'. I-CVI was calculated by using a formula the number of rating expert panel experts giving the 'legal content' divided by the total number of expert members while Average of I-CVI was measured by calculated the proportion of the total items on the total number of I-CVI. It can be further divided into Scale-Level CVI/Universal Agreement (S-CVI/UA). S-CVI/UA was calculated as a proportion of the item of the total I-CVI that equal. According to Sirajudeen et al (2012) also sets out three levels of validity: (1) Moderate (0.70-0.79), (2) high (0.80-0.89) and (3) very high (0.90-1.00). The value  $\leq 0.69$  was not mention in Sirajudeen et al (2012) publicaton, however it can be considered as a weak value/unacceptable value.

In this step, the study was proceeded with a cognitive interviewing and reliability testing. A total of 30 participants (Wilson Van Voorhis & Morgan 2007) from government day care centre that meet the inclusion criteria were recruited with age 60 years and above participated in this study and provided their consent. These participants attended the centre on daily basis and went home once they finished with the activities in the centre. A purposive sampling method was used to recruit the older people attending the day care centre. Test-retest reliability was performed to identify the reliability of M-PASS. Re-evaluation was done in four weeks interval after the first evaluation (de Zwart et al. 2002). Generally, it is recommended to have one to four weeks interval for the purpose of to measure the test-retest reliability of items (Kurpius & Stafford 2006). This is because the time interval between test and retest need to be adequately long to avoid the detainment of the questions that have been asked and at the same time adequately short to avoid the changes of

the participants' lifestyle and social status (Bobakova et al. 2015). Determination of the instrument's reliability was calculated by using intra-class correlation (ICC). The ICC is considered as a poor reliability when the value is below 0.50, between 0.51 and 0.74 indicate moderate reliability, 0.75 until 0.90 indicate good reliability while the instrument has an excellent reliability if the value is more than 0.90 (Portney & Watkins 2008).

This stage also aimed to gather the feedback from the prospective users of the applicability of the M-PASS. The cognitive interviewing was performed to identify inappropriate and unclear aspects either on item, sentences or instruction of the M-PASS among the target population (Willis 2015). The participants were asked according to each of the items in the M-PASS with questionnaire such as is there any difficulties with any words or terms in the Malay version, are the questions or items in the M-PASS appropriate or need too much time to complete, along with probing questionnaires to gather specific information relevant to the questions. A few problems were found during the pre-testing of the M-PASS were noted.

Step E: The final version of the translated Malay version (M-PASS)

After all the steps was completed, the final step of the adaptation process was the product of the final version of the instrument (M-PASS) by remain the same layout of the original PASS-Home form

## RESULTS

The translation and adaptation process resulted in a Malay version of PASS (M-PASS). In the process of items evaluation, several items were considered as unsuitable with the Malaysian context and the suitability of the population based from the discussion among researches involved in the study. There were five items that have been agreed to be removed from the original PASS version with reasoning. These five items are 1) Task #H9: Bill Paying by Check (most people pay by cash or electronically but older people in the nursing homes did not pay any bills), 2) Task #H10: Checkbook Balancing (balance can be check at the bank or electronically), 3) Task #H11: Mailing Bills (most people receiving mail bills but did not paying bills by mail), 4) Task #H22: Playing Bingo (game that is not common in a Malaysian context especially for the older people), and 5) Task #H23: Oven Use (not appropriate to be used by the target population which is the older people in the nursing homes). The remaining 21 items were included in the M-PASS. There were five tasks/items deemed suitable and most relevant with Malaysian context

TABLE 1. Items in the Malay Version of the Performance Assessment of Self-Care Skills (M-PASS)

Task #H	ADL/IADL
1	FM: Bed Mobility
2	FM: Stair Use
3	FM: Toilet Mobility and Management
4	BADL: Oral Hygiene
5	FM: Bathroom and Shower Mobility
6	BADL: Trimming Toenails
7	BADL: Dressing
8 (+)	BADL: Wearing Scarf
9 (+)	BADL: Wearing Sarung
10	CIADL: (Money Management): Shopping
11 (+)	CIADL: (Money Management): Preparation Things for Post
12	PIADL: (Heavy Housework): Taking out Garbage; Key Use
13	CIADL: Telephone Use
14	CIADL: Medication Management
15	PIADL: (Heavy Housework) Changing Bed Linens
16	CIADL: Obtaining Critical Information from the Media (Auditory)
17	CIADL: Obtaining Critical Information from the Media (Visual)
18	CIADL: (Home Maintenance) Flashlight Repair
19	PIADL: (Home Maintenance) Sweeping
20	FM: Indoor Walking
21	CIADL: Home Safety
22 (+)	PIADL: Gardening
23 (+)	CIADL: (Meal Preparation) Kettle Use
24	CIADL: (Meal Preparation) Stovetop Use
25	CIADL: (Meal Preparation) Use of Sharp Utensils
26	PIADL: (Light Housework) Cleanup after Meal Preparation
(-)	(Money Management): Bill Paying by Check
(-)	(Money Management): Checkbook Balancing
(-)	(Money Management): Mailing Bills
(-)	Playing Bingo
(-)	(Meal Preparation) Oven Use

(+) indicate added items in the M-PASS, (-) indicate items in the PASS-Home omitted in the M-PASS

were added in the M-PASS. These five tasks/items are: 1) Task #8: Wearing scarf, 2) Task #9: Wearing sarung, 3) Task #H11: Preparation things for post, 4) Task#H22: Gardening, and 5) Task #23: (Meal Preparation) Kettle Use. List of the full M-PASS as shown in Table 3. Items in the PASS-Home that were omitted in the M-PASS indicated with (-) and items added in the M-PASS were indicated with (+). Refer to Table 1. In addition, there were no issues or inconsistencies during the translation and harmonization process of the M-PASS.

The total of nine expert panels were involved in this validity test. In terms of Content Validity Index, as shown in Table 2, 18 out of 26 obtained a I-CVI of 1.00 for all four elements of CVI. Item relevancy for bathroom and shower

mobility, dressing, obtaining critical information from the media (visual), home maintenance- flashlight repair and gardening scored I-CVI 0.89 while item wearing scarf and wearing sarung scored I-CVI 0.78 respectively. I-CVI 0.89 was scored for simplicity and clarity for heavy housework) changing bed linens and bathroom and shower mobility respectively. The average score of 0.99 was obtained for the items (Average I-CVI) and a score of 0.93 for the whole scale (S-CVI/UA).

Test-retest was done among 30 older people living independently in the community and attending the day care centre. The demographic information of the participants can be referred in Table 3. Intra Class Correlation analysis showed that M-PASS has a good to excellent consistency.

TABLE 2. Content validity of M-PASS (n = 9)

Items	I-CVI				S-CVI
	Relevance	Clarity	Simplicity	Ambiguity	
Bed Mobility	1.00	1.00	1.00	1.00	
Stair Use	1.00	1.00	1.00	1.00	
Toilet Mobility and Management	1.00	1.00	1.00	1.00	
Oral Hygiene	1.00	1.00	1.00	1.00	
Bathroom and Shower Mobility	0.89	0.89	1.00	1.00	
Trimming Toenails	1.00	1.00	1.00	1.00	
Dressing	0.89	1.00	1.00	1.00	
Wearing Scarf	0.78	1.00	1.00	1.00	
Wearing Sarung	0.78	1.00	1.00	1.00	
(Money Management): Shopping	1.00	1.00	1.00	1.00	
(Money Management): Preparation Things for Post	1.00	1.00	1.00	1.00	
(Heavy Housework): Taking out Garbage; Key Use	1.00	1.00	1.00	1.00	
Telephone Use	1.00	1.00	1.00	1.00	
Medication Management	1.00	1.00	1.00	1.00	0.93
(Heavy Housework) Changing Bed Linens	1.00	1.00	0.89	1.00	
Obtaining Critical Information from the Media (Auditory)	1.00	1.00	1.00	1.00	
Obtaining Critical Information from the Media (Visual)	0.89	1.00	1.00	1.00	
(Home Maintenance) Flashlight Repair	0.89	1.00	1.00	1.00	
(Home Maintenance) Sweeping	1.00	1.00	1.00	1.00	
Indoor Walking	1.00	1.00	1.00	1.00	
Home Safety	1.00	1.00	1.00	1.00	
Gardening	0.89	1.00	1.00	1.00	
(Meal Preparation) Kettle Use	1.00	1.00	1.00	1.00	
(Meal Preparation) Stovetop Use	1.00	1.00	1.00	1.00	
(Meal Preparation) Use of Sharp Utensils	1.00	1.00	1.00	1.00	
(Light Housework) Cleanup after Meal Preparation	1.00	1.00	1.00	1.00	

I-CVI=item content validity index,

S-CVI/UA=scale content validity index/universal agreement

TABLE 3. Demographic data of the older people (N = 30)

Variables	Older people (N=30) Total % (n)
Gender	
Male	6.7(2)
Female	93.3(28)
Age (years)	
60-65	33.3(10)
66-70	26.7(8)
71 and above	40.0(12)
Race	
Malay	100.0(30)
Marital status	
Single	3.3(1)
Married	30.0(9)
Divorced	66.6(20)

The ICC value was at 0.706, 0.906 and 0.950 for Independence, Safety, and Adequacy respectively. Cognitive interviewing revealed that most of the items in the M-PASS were easily understood. Only two participants said that too many tasks in the M-PASS that need to be completed and seems lengthy. However, all the items were retained in the M-PASS. Some of the participants unable to perform some of the activities because of the environmental context such as there is no stairs provided in the day care centre and activities involving bed mobilization (no bed provided in the day care centre).

## DISCUSSION

The translation process of M-PASS was done according to guideline by WHO (2017) on the process of translation and adaptation of instruments. This was done to ensure accurate translation was performed and to maintain the quality of its content. A total of seven translators were involved in the translation process of the M-PASS to ensure its linguistic validity. Three of them had translated from English to Malay while the remaining four had performed back-translation from Malay to English to ensure content consistency. Involvement of a highly experience translators in language fields with strong background of working experiences help to ensure that the quality of the translation is good and convincing.

Older people living independently in community can brings challenges to healthcare professionals such as occupational therapists in terms of ensuring for their safety to prevent injuries while performing their daily routines (Turcotte et al. 2018; Hasegawa et al. 2018). A valid, reliable and culturally suitable assessment tools are much needed in order to evaluate for their performance ability and safety during routine day-to-day activities (Hasegawa et al. 2018), and instruments to assess this are still limited in Malaysia. Hence, the PASS-Home was adapted, translated and validated to enable accurate evaluation can be carried out amongst older people to determine their ability and safety while performing daily routines.

A similar cross cultural adaptation study conducted in Malaysia resulted in the difference of the conceptual meanings between the two countries (e.g. Malaysia and Australia) which showed that some of the words were not related to the Malaysian context as it referred to Australian people such as ethnic group and ethnic Australia (Asmuri et al. 2016). Another study by Rosnah et al. (2013) found the importance of the process of harmonisation among the expert members to ensure the consistency between the two different languages. Therefore, the process of translation of a scale from one language to another language is crucial

to ensure that the translated version is valid, reliable and culturally appropriate. Similarly, the current study had undergone the rigorous process of translation and adaptation of the M-PASS from English into a Malay language version followed by the validation process. The content validity of the M-PASS was established through the value of I-CVI and S-CVI, while the reliability was obtained from the test-retest. Thus, the M-PASS was found to be valid, reliable and linguistically and culturally relevant to be used in a Malaysian context, specifically for the elder people in the nursing homes.

A few items were found to be inappropriate to be used in Malaysian context. Item for 'Bill Paying By Check' and 'Mailing Bills' were removed from the original version because it did not represent on how Malaysians pay their bills, especially elderly population in the nursing homes. In Malaysia, most of the population pay their bills (electricity bills, water bills, phone bills etc.) at the designated centre such as post office, telecommunication centre etc. However, some of them choose to pay by using online services. Paying bills by check or mailing were not culturally acceptable in Malay society, therefore, these two items were removed. 'Checkbook Balancing' was also removed from the original version because it does not culturally relevance for the Malaysian context. Another item that need to be removed from the original PASS version was 'Playing Bingo'. The Bingo task was removed from the original version of PASS because this is an unfamiliar game in Malaysia, moreover, this game will be used for the elderly population in the nursing homes. The next item was meal preparation (oven use). This item was not appropriate to be applied for the elderly in the nursing homes because their meal will be prepared by the attendants and they were not allowed to cook by themselves.

Alternatively, there were five items has been added to the translated Malay version of the PASS. The first item was 'Wearing Scarf'. This activity was only done by Muslim women where they must cover their hair with scarf or 'tudung'. The next item was 'Wearing Sarong'. In Malaysia, most of the Malay men and women wearing sarong in their daily life as a lower garment. For men, wearing sarong or called as kain pelikat, a folded square piece of checked material, when they go to the mosque or as a home wear. Most of the women wearing sarong or called as kain batik (as referred to most of the women sarong in a batik design) as a home wear and, it was very important to wear during confinement. Another item was 'Preparation Things for Post' was added as money management task. The next item that was more culturally relevant in a Malaysian context was gardening. Gardening is one of the physical activities for any people of age, including elderly in the nursing homes. The gardening item substituting leisure activity of playing bingo in the original PASS.



A similar study conducted by Hamed et al. (2015) stated that there were five items that were excluded in the Arabic version of the PASS (A-PASS) because they were not culturally relevant for the Arabic culture and people. Also, five items were added to the new Arabic version that were more culturally relevant to the Arabian context. For the current study, the exclusion and addition of the new items in the M-PASS were deemed to be culturally sensitive in a Malaysian context. Malays represent the highest population and they were all Muslims, as well as the Arabic people. Playing bingo is a game of chance and the player needs to match the printed numbers in different arrangements on cards. Some people will play for money involving bets to win the game. Therefore, this type of game is prohibited for Muslims and was excluded from the M-PASS. Other items such as bill paying by check, mailing bills and check book balancing were not relevant to be performed in a Malaysian context as well as need to be reviewed and updated. The PASS was first developed in 1984 and items related to the payment of bills that need to be excluded in this current study, might be relevant during the development of this scale. However, as time goes by, nowadays, bill payment can be done through online payment and by using downloaded applications.

This translated M-PASS is needed to provide Malaysian occupational therapists with the tools that are appropriate to assess the daily living function especially for the elderly in the nursing homes, according to the culture of the targeted population. The use of the translated M-PASS will assist in understanding the performance of the self-care skills of the elderly in the nursing homes, which may assist with future planning and development. Furthermore, the translated M-PASS shows high content validity on its average items (I-CVI), as well as on its scale score (S-CVI) (Polit & Beck 2006; Sirajudeen et al. 2012). It is indicated that it might be valuable to be used with Malay speaking older people in the Malaysian context to assess their performance ability in managing daily tasks safely.

## LIMITATION

The limitations in this study need to be emphasized. First, one of the limitations is that the items replacement was not according to the domain of the exclusion items. Many of the exclusion items focusing on the cognitive aspect of money management, while the addition of the new items focusing on the basic activities of daily living (e.g. dressing). Hence, the psychometric properties of the M-PASS need to be further investigated (e.g. construct validity). Even though the original PASS was shown to be valid and reliable in a few studies, the translated M-PASS

need to be examined after modifying and adding the new items to the original version. Current activities involving the use of internet or smartphone can be considered as replacement for the cognitive aspect for future study (Klimova & Valis 2018). Another limitation is that the addition of the new items was influenced by Malay ethnicity cultures which causes this scale to have limited ability to be used for the other ethnicities in a Malaysian context. This is because Malays represent most of the Malaysian citizens which constituted 67.4 per cent, followed by Chinese, Indian and Others (Department of Statistics Malaysia 2015). Future study needs to include items that were relevant to be used by all ethnicities in Malaysia. Next, the total of 30 participants is the minimum number to establish the reliability of the M-PASS. Future study should include a larger sample size of the participants consisting of the three major ethnicities (e.g. Malay, Chinese, Indian) to have conclusive results.

## CONCLUSION

The development of this translation version of M-PASS through a thorough process of items evaluation, forward and backward translations and evaluation by expert reviewers, gives additional value to the occupational therapy profession in terms of facilitating a better assessment process and communication with older people living in the community as well as those living in an institution in order to assess their ability and safety in performing their daily routine. It is believed that by having this translated and culturally adapted Malay version of M-PASS, health care services for Malay speaking older people and their family in Malaysia can be greatly improved.

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## DECLARATION OF CONFLICTING INTERESTS

The author(s) confirm that there is no conflict of interest.

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