

ORIGINAL ARTICLE

**TRANSLATION AND VALIDATION OF THE
MALAY POST TRAUMATIC STRESS DISORDER
CHECKLIST FOR CIVILIANS**

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Abstract

Objectives: There are a number of validated questionnaires available for the screening of Post-Traumatic Stress Disorder (PTSD), and the PTSD Checklist for Civilians is one of them. However, none was translated into the Malay Language and validated for use in the Malaysian population. The aim of this study is to translate and validate the Malay PTSD Checklist for Civilians (MPCL-C). **Methods:** The PCL-C was translated into the Malay Language and back-translated. The reliability and validity of the MPCL-C were then determined by administering them to those who presented at the emergency department for motor vehicle accident at least one month before. **Results:** The MPCL-C has good face and content validity. In terms of reliability, it is also good, with Chronbach's alpha values of 0.90, 0.77, 0.75 and 0.74 for the full scale, re-experiencing, avoidance and arousal domains respectively. **Conclusions:** The MPCL-C is a valid and reliable instrument to screen for PTSD in motor vehicle accident victims for the studied population. *ASEAN Journal of Psychiatry, Vol. 16 (2): July – December 2015: XX XX.*

Keywords: PTSD, Validation studies, Diagnosis

Introduction

Post-Traumatic Stress Disorder or PTSD can be found all over the world and its lifetime prevalence ranges from 0.35% in China [1] and 6.8% in the United States of America [2]. An essential feature of the condition is exposure to traumatic events, which later produces psychological distress [3]. In the past, research has concentrated on wars and conflicts being the major traumatic event, but recently, other events such as physical and sexual violence, disasters and motor vehicle accidents (MVA) are receiving more attention. These events are equally traumatic and are more widespread because not only they occur in war-torn countries, but they also take place

in countries, which are not normally associated with wars.

Malaysia has been fortunate in which it does not experience many wars or disasters. However, MVAs are a daily occurrence in the country, and it is estimated that there will be more than 8000 fatalities due to MVAs in the year 2015 [4]. Approximately 10-15% of all MVA victims according to Australian Centre for Posttraumatic Mental Health will develop PTSD [5]. With a considerable number of MVAs happening in the country daily, would the number of PTSD sufferers be equally large? At present, there are no data available on the prevalence of PTSD in the country.

There are numerous validated screening tools available for PTSD but to the best of our knowledge, none has been validated to be used in the Malaysian population. The official language in Malaysia is Malay, and the English Language, although widely spoken, are still foreign to many of its citizens. Due to the sheer number of MVAs occurring, initial screening of the condition before referral to the appropriate mental health service is probably the most plausible step before any treatment can be offered. The PTSD Checklist for Civilians (PCL-C) is a validated instrument to screen for PTSD in the general public [6]. However, for it to be useful, it first needs to be translated to the Malay Language and then validated in the Malaysian population (Appendix 1). This study aims to translate the PCL-C into Malay language and validate the translated version for use in the Malaysian MVA victim population.

Methods

Study Design

This is a cross-sectional study involving those presenting to Universiti Kebangsaan Malaysia Medical Centre (UKMMC) Emergency Department (ED) for motor vehicle-related injuries. It was conducted from January to May 2014. The subjects were asked to complete the Post-Traumatic Stress Disorder Checklist for Civilians (PCL-C) at least one month following their motor vehicle accident (MVA). The study has approval from the UKMMC's ethics committee.

Study Instrument

The PCL-C is a self-rated questionnaire, used as a screening tool for PTSD. It is chosen for its good validity [7], brevity and the fact that it is self-rated, which appeals to the busy ED setting. A special permission to use the PCL-C was obtained from the main author (Frank Weathers) and current owner (The National Centre for PTSD) before commencement of the study.

Translation of PCL-C

The process of translating the PCL-C into Malay language was done according to the guideline [8]. The questionnaire was first

translated into Malay, and then reviewed by an independent content expert whose mother tongue is Malay. The first version was amended according to the comments made by the reviewer, and this second version is then back-translated into English by a person who is both content and language expert. The process above was repeated by a different set of experts. All this was done to ensure that the translated version is terminologically and grammatically sound while preserving the content and meaning of the original. The language expert employed in the study is a psychiatrist and qualifies as a language expert due to prior works, including the development of a Malay medical dictionary.

A number of meetings were held among the experts involved in the translation and back-translation process. By reviewing, revising and refining the translations a final version of the Malay Post-Traumatic Stress Disorder Checklist Civilian version (MPCL-C) was produced. Prior to using the MPCL-C in the validation study, two pre testing exercises were conducted to identify any problems, which may affect subjects' comprehension of the finalised Malay version. The first was on a group of 15 first-line responders in the emergency department consisting of healthcare assistants, nurses and paramedics who frequently deal with the victims of MVA. It was from their input that the layout was altered. We found that the MPCL-C is easily understood in terms of language and message.

Validation Study

The validity of the questionnaire was ascertained through a variety of means, namely, by establishing the face validity, content validity and construct validity. The face validity was determined by piloting the MPCL-C, on seven subjects who presented to the ED following MVA and fulfilling the inclusion and exclusion criteria to the study. The feedback they gave was that it was easily understood, and it was felt that, at face value it fitted its purpose. The content validity of the MPCL-C, on the other hand, was attained by presenting the translated version of the questionnaire to a panel of experts [9]. Content experts consisting of psychiatrists and clinical psychologists reviewed the translated version and were satisfied that the contents were

preserved and terms used were correct. Finally, exploratory factor analysis was carried out to ascertain the construct validity of the questionnaire. As recommended by Nunally and Bernstein [10], a factor loading of 0.3 is an acceptable value for a valid construct.

In terms of reliability, two methods of estimation were used, internal consistency and test-retest reliability. The internal consistency was estimated from the Chronbach's Alpha (coefficient α) values. A modest value of at least .70 is deemed sufficient to regard a tool as reliable while saving valuable resources, time and energy [11]. Also, a randomly selected number of subjects were given the MPCL-C again after 2 weeks to determine the test-pretest reliability.

Participants

The study subjects were recruited from those attending the Universiti Kebangsaan Malaysia Medical Centre Emergency Department (ED) for MVA-related injuries. Everyone over the age of 18 was included. Patients who have major language problems, significant head injury during the accident or those under the age of 18 were excluded. The calculated sample size was 51. Explanation of study was given to the participants, along with the patient information and then informed consent obtained.

Results

A total of 63 patients were recruited into the study. The mean age of the subjects was 30.7 (SD 12.6). 79.4% were males, and 50.8% were single. In terms of ethnicity, 82.5% were Malay; 14.3% Chinese and 3.2% were Indian. While it appears that married subjects and the Chinese ethnic group is slightly underrepresented in this sample, as a whole, the sample is representative of the Malaysian population [12]. Furthermore, this sample is a fairly typical representation of those who are involved in MVAs [13].

Validity

The MPCL-C is regarded as having face and content validity through the processes described above. As mentioned previously, construct validity was ascertained through exploratory factor analysis (EFA). It was found that it is still best to group PTSD symptoms in three domains, as is in the original PCL-C (Table 1). 15 out of 17 factors were grouped accordingly. Item 4 ("feeling upset when reminded") had a higher factor loading in "avoidance" domain rather than "re-experiencing" domain. Items 10 ("feeling distant") and 12 ("feeling as if future will be cut short") both had low factor loadings in its rightful places, which would be in the "avoidance" domain of PTSD symptoms.

Table 1. Demographic data of respondents

		No. (n)	%	Mean (SD)
Age				30.7 (12.6)
Gender	Male	50	79.4	
	Female	13	20.6	
Race	Malay	52	82.5	
	Chinese	9	14.3	
	Indian	2	3.2	
Religion	Islam	52	82.5	
	Buddha	9		
	Hindu	1	14.3	
	Christian	1	1.6	
Marital Status	Single	32	50.8	
	Married	26	41.3	
Educational Background	Primary	6	10.5	
	Secondary/Diploma/SKM	36	63.2	
	Tertiary: Bachelor	15	26.3	

Occupation	Professionals	1	1.7	
	Technicians and associate professionals	15	25.9	
	Clerical support workers	2	3.4	
	Service and sales workers	18	31.0	
	Craft and related trade workers	2	3.4	
	Plant and machine-operators	4	6.9	
	Armed Forces occupations	3	5.2	
	Homemaker	4	6.9	
	Student	5	8.6	
	Retiree	1	1.7	
	Unemployed	3	5.2	
Socioeconomic Status	Monthly income (RM)			
	<999	5	12.5	
	1000-1999	17	42.5	
	2000-2999	6	15.0	
	3000-3999	7	17.5	
	4000-4999	0	0	
	5000-5999	3	7.5	
	6000-6999	1	2.5	
	7000-7999	0	0	
	8000-8999	1	2.5	
9000-9999	0	0		
>10,000	0	0		

Table 2. Factor loading of each item in the Malay Post Traumatic Stress Disorder Checklist for Civilians based on exploratory factor analysis

Item summary	Subscale		
	Avoidance	Re-experiencing	Hyper-arousal
PCL1 Reexperiencing memories, thoughts or images		.594	
PCL2 Repeated disturbing dreams		.765	
PCL3 Reliving the experience		.779	
PCL4 Feeling upset when reminded	.784	.104	
PCL5 Physical reactions when reminded		.720	
PCL6 Avoid thinking or talking about stressful event	.565		
PCL7 Avoid similar activities or situations	.483		
PCL8 Trouble remembering parts of stressful event	.701		
PCL9 Loss of interest	.387		
PCL10 Feeling distant	.253		.732
PCL11 Emotionally numb	.361		
PCL12 Feeling as if future will be cut short	.153		.799
PCL13 Sleeping difficulty			.650
PCL14 Irritability			.630
PCL15 Difficulty concentrating			.428
PCL16 Hypervigilant			.321
PCL17 Easily startled			.308

Reliability

The reliability in terms of internal consistencies of the MPCL-C is generally good. Overall, the MPCL-C had an excellent

Chronbach's alpha value of .9. As individual symptom domain, the internal consistencies are still good, with values more than .7 (Table 2).

Table 3. The internal consistencies of the MPCLC

Description	Chronbach's Alpha	No. of item
MPCL-C (full scale)	.897	17
Re-experiencing Symptoms	.768	5
Avoidance Symptoms	.749	7
Hyperarousal Symptoms	.739	5

Furthermore, when we subjected some of the participants again to complete the MPCL-C after 2 weeks, it is found that the test-retest reliability is very high. It had a 0.98 Pearson correlation value ($p=0.02$), which is significant at $p<0.05$ level.

Discussion

The main strength of this study is the methodical manner in which the translation process was done. It was according to the translating guidelines, and involved many experts at different stages and levels. The sample size satisfied the calculation and representative of the population being studied.

Good validity and reliability suggest that the Malay version of the PCL-C is comparable to versions in other languages. This is consistent with other studies in which the PCL-C was translated into a different language and validated. For instance, the PCL-C Chilean version is a valid and reliable scale for PTSD [14]. The same can be said for the Portuguese, Brazilian and Spanish versions of the questionnaire [15–17].

Findings of this study support the use of the PCL-C for Malay speaking patients. The construct of the scale remains mostly intact and cross-culturally sensitive. Admittedly, some terms such as “upset,” “feeling distant” and “foreshortened future” have no counterpart in Malay and indeed as a concept, may be unfamiliar to Malaysians. Hence, they had to be translated into terms, which are closest to them in meaning. Consequently, these inaccuracies were reflected through the low factor loading in these three variables.

Furthermore, in a busy Emergency Department setting, time is of the essence. The MPCL-C won the approval of the first responders in the ED for its ease of administration, brief content and user-friendly format and language. This implies that this version of the scale can be reliably used to screen for PTSD among MVA victims even in a hectic clinical setting.

A limitation to this study is that it does not employ other forms of validity processes other than those mentioned. For example, since no alternative measure was included, the concurrent validity of the scale cannot be determined. Ideally, the gold standard tool, in this case the Clinician Administered PTSD Scale (CAPS), should also be used and the results compared to the MPCL-C. Whilst it is the gold standard for diagnosis PTSD, the length of the questionnaire and the fact that it has to be administered by trained professionals made it an impractical tool for a busy emergency department setting. Furthermore, there is no validated Malay version of the CAPS to be used with this purpose.

Conclusion

Although the study had its limitations, its result, nevertheless, demonstrates that the Malay Post-Traumatic Checklist for Civilians is a valid and reliable PTSD screening instrument for motor vehicle accident victims in Malaysia. Its use in screening for PTSD will further help health providers in Malaysia to ascertain the extent of the condition in the country, and how much resource is needed to manage it.

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Appendix 1

Post Traumatic Stress Disorder Checklist. Senarai Semak Gangguan Stres Pasca Trauma.

INSTRUCTIONS: Below is a list of problems and complaints that people sometimes have in response to stressful life experiences. Please read each one carefully, then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

ARAHAN: Berikut adalah senarai masalah dan aduan yang kadang-kadang terjadi setelah seseorang itu mengalami pengalaman hidup yang menyebabkan tekanan. Sila baca setiap kenyataan dengan berhati-hati, kemudian bulatkan salah satu nombor di sebelah kanan kenyataan tersebut untuk menjelaskan setakat mana masalah atau aduan tersebut mengganggu anda dalam sebulan yang lalu.

		Not at all <i>Tidak langsung</i>	A little bit <i>Sedikit</i>	Moderately <i>Sederhana</i>	Quite a bit <i>Banyak juga</i>	Extremely <i>Sangat banyak</i>
1.	Repeated, disturbing memories, thoughts, or images of a stressful experience from the past? <i>Seringkali terganggu oleh kenangan, fikiran atau imej tentang pengalaman yang memberi tekanan di masa lampau?</i>	1	2	3	4	5
2.	Repeated, disturbing dreams of a stressful experience from the past? <i>Seringkali mengalami mimpi buruk tentang pengalaman yang memberi tekanan di masa lampau?</i>	1	2	3	4	5
3.	Suddenly acting or feeling as if a stressful experience were happening again (as if you were reliving it?) <i>Tiba-tiba berkelakuan atau merasakan seolah-olah peristiwa yang memberi tekanan itu berlaku semula (seolah-olah anda sedang mengalaminya sekali lagi)?</i>	1	2	3	4	5
4.	Feeling very upset when something reminded you of a stressful experience from the past? <i>Merasa sangat sedih bila sesuatu mengingatkan anda kembali kepada pengalaman yang memberi tekanan di masa lampau?</i>	1	2	3	4	5
5.	Having physical reactions (e.g. heart pounding, trouble breathing, sweating) when something reminded you of a stressful experience from the past? <i>Mengalami reaksi fizikal (seperti berdebar-debar, sesak nafas atau berpeluh-peluh) jika sesuatu itu mengingatkan anda kembali kepada pengalaman yang memberi tekanan di masa lampau?</i>	1	2	3	4	5
6.	Avoiding thinking about or talking about a stressful experience from the past or avoiding having feelings related to it? <i>Mengelak daripada berfikir dan bercakap mengenai peristiwa yang memberi tekanan di masa lampau atau mengelak daripada mempunyai sebarang perasaan yang berkaitan dengannya?</i>	1	2	3	4	5
7.	Avoiding activities or situations because they reminded you of a stressful experience from the past? <i>Mengelak daripada sebarang aktiviti atau situasi yang akan mengingatkan anda kembali kepada</i>	1	2	3	4	5

	<i>pengalaman yang memberi tekanan di masa lampau?</i>					
8.	Trouble remembering important parts of a stressful experience from the past? <i>Sukar mengingat bahagian-bahagian penting mengenai sesuatu pengalaman yang memberi tekanan di masa lampau?</i>	1	2	3	4	5
9.	Loss of interest in activities that you used to enjoy? <i>Hilang minat dalam aktiviti yang dulunya digemari?</i>	1	2	3	4	5
10.	Feeling distant or cut off from other people? <i>Merasa terpinggir dari orang lain?</i>	1	2	3	4	5
11.	Feeling emotionally numb or being unable to have loving feelings for those close to you? <i>Merasa emosi kaku atau tidak dapat merasakan perasaan sayang terhadap orang-orang yang rapat dengan anda?</i>	1	2	3	4	5
12.	Feeling as if your future will somehow be cut short? <i>Merasa seolah-olah masa depan anda akan dipendekkan?</i>	1	2	3	4	5
13.	Trouble falling or staying asleep? <i>Bermasalah untuk tidur atau kekal lena?</i>	1	2	3	4	5
14.	Feeling irritable or having angry outbursts? <i>Merasa mudah meradang atau panas baran?</i>	1	2	3	4	5
15.	Having difficulty concentrating? <i>Mempunyai masalah menumpukan perhatian?</i>	1	2	3	4	5
16.	Being "super-alert" or watchful or on guard? <i>Menjadi terlalu berwaspada atau terlampau berjaga-jaga?</i>	1	2	3	4	5
17.	Feeling jumpy or easily startled? <i>Merasa resah gelisah atau cepat terkejut?</i>	1	2	3	4	5