Psychometric Properties of the Malay Translated and Adapted Multicultural Experience Inventory-Revised in the Malaysian Context

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Abstract: Personal multicultural experience may contribute to an individual's competency in working with multicultural clients. Individuals with higher multicultural exposure and interactions are expected to have greater cultural resources that are crucial when working with diversity. Thus, this study aims to examine the psychometric properties of the Malaysian version of the Multicultural Experience Inventory-Revised (MEI-R). The MEI-R is a self-rated questionnaire that measures individuals' multicultural exposure and interactions during their formative years and current multicultural encounters. This study involved 205 counsellor trainees who were selected using cluster random sampling. Previously the Malay translated and adapted MEI-R had undergone the preliminary exploratory factor analysis. In this study, the focus is to examine and confirm the factor structure, reliability and validity of the translated and adapted MEI-R. This study also reported the value of external validity. In this study, the results confirm the factor structure, reliability, and validity of the translated and adapted MEI-R. All in all, the translated and adapted MEI-R has high reliability and sufficient validity values, indicating that it may be used successfully on counsellor trainees of all genders.

Keywords: Personal Multicultural Experience, Reliability, Validity, Psychometric Properties, Counsellor Trainees.

1 Introduction

The multicultural experience variable has been extensively investigated in the field of multicultural education. Multicultural experience has been examined with other variables, such as the concept of receptiveness, creativity, moral reasoning, mindset, and intercultural development (Endicott et al., 2003; Narvaez & Hill, 2010, Puente-Diaz et al., 2020). It has been found to play a significant role in improving individuals' cognitive complexity, sharpening their identification ability and incorporating resources from various cultures (Benet-Martinez, Lee, & Leu, 2006). Thus, individuals with greater multicultural experiences will have greater and more diverse cultural resources that may benefit them in fulfilling their demanding tasks (Chiu & Hong, 2005).

Multicultural experiences comprise all direct and indirect encounters with components and/or members of foreign cultures (Leung et al., 2008). Intercultural contacts are also a part of multicultural experiences (Narvaez & Hill, 2010) where persons from various backgrounds coming into contact with one another could have a beneficial result., including reducing prejudice, encouraging them to be more open, and improving their ability to empathise (Allport, 1954). The multicultural experience was found to be related with positive intergroup attitudes and humanitarian helping by a recent study by Sparkman and Hamer (2020). In fact, multicultural experience allows an individual to see viewpoints that contrast with their indigenous cultures, which can thus lead to an adjustment in thinking, a broadening of perspective, and greater cognitive flexibility (Narvaez & Hill, 2010).

Through Cognitive and Cultural Flex Theory of Personality (CCFTP), Ramirez (1991) argued that socialisation and cultural experiences (multicultural experiences) might have a major impact on a person's ability to acquire a multicultural personality as well as cultural and cognitive flexibility. Intercultural competencies such as cognitive and behavioural flexibility, empathy, openness to new experiences and people, and ambiguity tolerance are examples of multicultural competencies that can be improved by gaining more intercultural encounters (Paige, 1996).

In the multicultural counselling field, researchers have given considerable attention to several variables that are almost similar to multicultural experiences, namely multicultural training experiences (Aga Mohd Jaladin, 2017; Sheu & Lent, 2007) and cultural immersion experiences (Barden & Cashwell, 2014; Barden, Mobley, & Shannonhhouse, 2014). In most of the studies, multicultural training experiences usually refers to the frequency of counsellors or counsellor trainees attending multicultural-related courses, whether in a study programme (Sheu & Lent, 2007) or as continuous professional development (Aga Mohd Jaladin, 2017). In other studies, multicultural training experiences were measured based on related variables, such as multicultural teaching, supervision, and clinical experience (Lee & Khawaja, 2012).

Barden et al. (2014) quoted the statement by Pope-Davis and Coleman (1997) in defining cultural immersion: "a direct, prolonged, in vivo contact with a culture different from that of the counsellor trainee" (p. 232). They mentioned that an individual's skills, self-efficacy, and critical thinking ability are expected to increase after immersion with culturally diverse people. In fact, previous studies have also reported the significance of cultural immersion on counsellor trainees' multicultural counselling competence (Tomlinson-Clarke & Clarke, 2010; Barden et al., 2014). To gain this kind of experience, individuals have to step out of their culture before they can become comfortable with the other different cultural elements. In a similar vein, Canfield et al. (2009) maintained that the cultural immersion experience serves as a medium for individuals to get out of their encapsulated views by closely witnessing minority clients' struggles and understanding the reasons professional helpers need to be culturally sensitive.

The cultural immersion experience can also be understood as an outcome of multicultural experiences that are measured through structured programmes as part of the multicultural counselling pedagogy (Barden & Cashwell, 2014; Barden et al., 2014). In the study conducted by Barden and Cashwell (2014), cultural immersion experience was programmed for the whole semester, which was at beginning of the first lecture of a multicultural counselling course and ending with completing a cultural immersion trip in a selected country. Cultural immersion experience may be similar to the multicultural experience in the sense that both types of experience may take place outside the classroom. The difference is multicultural experience is usually gained in more natural situations. 'Natural' exposure and interactions take place during one's formative years or in daily life in a regular environment. Nevertheless, this personal multicultural experience has not received adequate attention from researchers.

The relevance to paying more attention to multicultural experience is based on the findings reported in a recent study by Jailani et al. (2020). They found that freshmen counsellor trainees are facing stressful experiences while adapting to a new environment due to factors such as time management, adjustment to campus lifestyle and miscommunication with peers and lecturers. To complicate the process, Jailani et al. (2020) also reported that counsellor trainees perceived social-psychological problems related to feeling guilty, shyness and inferiority. This problem may be due to their lack of exposure and interaction with diverse encounters during their formative years.

In line with Abdul Rahman et al.'s (2018) argument, an educator (in the sense that counsellor also plays a role as educator/coach/consultant/facilitator) should be well aware of their own and other cultures in-depth, especially when living in a multicultural country. Counsellor trainees should not think that their way of living is the only way the world revolves. Otherwise, their clients may suffer as a result of culturally insensitive methods (Donohue, 2020). As a result, they must understand the significance of multicultural experiences in order to become successful counsellors. Multicultural experience is critical in providing the layout of a larger picture for knowing oneself, especially during a person's formative years. Individuals' current selves, thoughts, feelings, and actions are heavily shaped by their multicultural experiences, which shape how they perceive and digest their surroundings.

1.1 Existing Instruments

Endicott et al. (2003) developed the 105-item Multicultural Experience Questionnaire (MEXQ) to measure the extent of one's multicultural experience and openness towards diverse groups, such as ethnicities, nationalities, gender as well as sexual, political, and religious orientations. The Multicultural Experience Questionnaire (MEQ) has a single factor and contains 15 items. It measures both intentional and unintentional intercultural encounters among college students (Narvaez & Hill, 2010). Along with MEXQ and MEQ developed in the field of social psychology, Aytug et al. (2018) also built up the 10-item Multicultural Experience Assessment (MEXA) that particularly measures the exposure and interactions during multicultural encounters.

The MEI-R was developed within the context of clinical psychology. It is a 26-item scale that assesses an individual's multicultural experience by measuring historical development patterns and contemporary multicultural interactions (Ramirez, 1998). In the field of counselling, multicultural experiences are typically operationalised as multicultural training experiences or cultural immersion experiences. There is no designated instrument to measure these forms of experience, since information on respondents' multicultural training experience is usually requested in the demographic section. Meanwhile, the effect of cultural immersion experience is often measured based on individual scores in multicultural counselling competence instruments. Therefore, the MEI-R seems plausible to be applied to measure counsellor trainees' personal multicultural experiences.

Ramirez (1998) initially designed the MEI for people of colour. Since then, the MEI has been modified in terms of the response choices and the number of Type A items to fit European Americans (whites). For example, the first response choice in the original (people of colour) version is "almost entirely my ethnic group", but in the Whites version, "my ethnic group" has been replaced by "whites". Hence, the first response choice in the Whites version is "almost entirely whites". Other than that, the people of colour version have more Type A items in comparison to the Whites version, with 26 items and 23 items, respectively. Nevertheless, both versions have the same number of subconstructs.

The items are divided into Type A and Type B, each with its own type of scoring. There are 17 items of Type A, e.g., "The ethnic composition of the neighbourhoods in which I lived before I started attending school was …". The items are rated on a 5-point Likert-like scale ranging from 1 = *almost entirely my ethnic group* to 5 = *almost entirely other ethnic groups*. Type B has nine items and is rated using a Likert-type format ranging from 1 = *extensively* to 5 = *never*. The MEI-R has two subconstructs, namely, Historical Development Pattern (HDP) and Current Multicultural Identity (CMI). The total score of the MEI-R reflects the level of multicultural experience, with higher scores indicating higher levels of multiculturalism and multicultural experience.

The MEI-R has been found to demonstrate sufficient internal consistency reliability, with $\alpha > .70$ (Chaichanasakul, 2011; Karcher & Fischer, 2004). Specifically, the previous $\alpha = .81$ (Karcher & Fischer, 2004), and $\alpha = .96$ (Chaichanasakul, 2011). This study relies on the findings of Chaichanasakul (2011), as this study also used Type A items from the MEI-R.

In comparison to other instruments, the MEI-R has a higher ability to capture individuals' multicultural experiences, especially during their formative years. This feature fits this study, which regards multicultural experiences as collected cross-cultural encounters. In fact, improved intercultural abilities, such as cognitive and behavioural flexibility, empathy, openness to new experiences and people, and tolerance for ambiguity, are often instilled by increased multicultural experiences (Paige, 1996). Thus, multicultural experience perhaps is the best variable to include in developing an improved framework for multicultural counselling competence.

An in-depth review of the existing literature shows that multicultural training experience and cultural immersion experience as few forms of experience, have significant correlation with multicultural counselling competence and multicultural counselling self-efficacy. These correlations are in line with the Social Cognitive Theory (Bandura, 1986), which posits relationships among personal agency, behaviour, and the environment. As an important variable, the multicultural experience must be measured concisely to provide high quality data. By making sure the questionnaire items are in native language, it not just reduces the risk of lower data quality (Kleiner et al., 2015) but also increases the response rate (Moradi et al., 2010). Therefore, the MEI-R was translated into Malay, the national language of Malaysia, using back-to-back translation. Then, this study ascertained the external validity of the translated and adapted MEI-R by testing its relationships with multicultural counselling competency and multicultural counselling self-efficacy. As the MEI-R is predicted to measure counsellor trainees' personal multicultural experiences precisely, the aim of this study is to examine the Malay translated and adapted MEI-R psychometrics' properties for its use in Malaysian context.

Therefore the main objective of the study is to examine the Malay translated and adapted MEI-R psychometrics' properties for the use among local counsellor trainees. Thus, there are three specific research objectives are to (1) confirm the factor structure of the Malay translated and adapted version of the MEI-R, (2) assess the translated MEI-R's reliability, and (3) analyse the MEI- R's external and convergent validity

2. Methods

2.1 Sample

A total of 205 counsellor trainees were involved after being chosen through random sampling, and their participation was voluntary. Random sampling technique was used to ensure fair representation of the sample to avoid biased data that will later affect the generalizability of the instrument. The counsellor trainees were undertaking counselling internship trainings in various organisations throughout Malaysia. The majority of the respondents were in the 22–24 years old age range (n = 159, 79.5%) and females (n = 159, 79.5%). The majority of the respondents were from the Malay ethnic group (n = 154, 77.0%). In terms of religion, they were mostly Muslims (n = 167, 83.5%).

2.2 Instruments

The instrument booklet was composed of five sections. The first section contained brief summary of the study and counsellor trainees' consent to involve in the study. The second section until the fourth section consisted of the MEI-R, Counselling Self-Efficacy-Racial Diverse (MCSE-RD: Sheu & Lent, 2007) and the Multicultural Counselling and Training Survey-Revised (MCCTS-R; Holcomb-McCoy & Day-Vines, 2004) items respectively. The last section was meant to record counsellor trainees' demographic information.

The MEI-R comprised of Type A and Type B Item. The Type A items in the MEI-R constituted two subconstructs, namely, Historical Development Pattern (HDP) and Current Multicultural Identity (CMI), with a total of 17 items. The items were rated on a 5-point Likert-like scale ranging from 1 = *almost entirely my ethnic group* to 5 = *almost entirely other ethnic groups*. The scoring of the items is based on a response of either 1 (*almost entirely my ethnic group*) or 5 (*almost entirely other ethnic groups*) received one point; a response of either 2 (*mostly my ethnic group with a few people of other ethnic groups*) or 4 (*mostly other ethnic groups with a few people of my ethnic group*) received two points; and a response of 3 (*my ethnic group, other ethnic groups and other minorities, about equally*) received three points. The total score (ranging from 21 to 63) of the MEI-R reflects the level of multicultural experience, with higher scores indicating higher levels of multiculturalism and multicultural experience.

In this study, the MEI-R was translated into the Malay language through the back-to-back translation method. Besides translating the MEI-R, the translators also advised on the numbering of Item 1 and that Item 3 was a double-barrelled statement. Thus, the numbering of Items 1a, 1b, 1c, and 1d was changed to running numbers, i.e., Items 1a, 1b, 1c, and 1d became Items 1, 2, 3, and 4,

respectively. This advice was accepted as the original numbering could have confused the counsellor trainees. Second, the translators advised separating Item 3 into two sentences to avoid double-barrelled statement. The resulting translated and adapted MEI-R consists of 21 items. It then underwent a content validation process by five counselling experts and was approved to be used in the pilot study, together with the MCSE-RD and MCCTS-R.

The 37-item MCSE-RD was utilized to assess the multicultural counselling self-efficacy in counsellor trainees. It was divided into three subscales: 24 items about multicultural intervention, 6 items on multicultural assessment, and 7 items related to multicultural counselling session management. All 37 items were positive items, and its scale was of 0 to 9, with 0 indicating no confidence and 9 indicating great confidence. The MCSE-RD has high internal consistency reliability with $\alpha = .98$ for its total and $\alpha = .92$ to .98 for MCSE-RD subscales (Sheu &Lent, 2007). For the Malay version, Rusnani and Yusof (2017) also reported high internal consistency reliability ($\alpha = .98$). In another study, Barden and Greene (2015) reported satisfactory internal consistency reliability for the MCSE-RD, with Cronbach's alpha coefficients of .94 for the full-scale and .89 to .95 for the subscales ($\alpha = .89$ for Multicultural Intervention, $\alpha = .87$ for Multicultural Assessment, and $\alpha = .95$ for Multicultural Session Management).

Meanwhile, the MCCTS-R was used to measure the respondents' multicultural counselling competence. As developed by Holcomb-McCoy and Day-Vines (2004), the MCCTS-R also consisted of three subconstructs which 4 items were about Multicultural Terminology, 20 items were on Multicultural Knowledge and 8 items were related to Multicultural, which makes up a total of 32 items. A 4-point Likert-like scale (1 indicates not competent and 4 indicates very competent) was applied in rating all 32-positively stated items. Its total score, which is calculated by adding the ratings of each item, explains the respondents' level of self-perceived multicultural counselling competency. The total score should range between 32 to 128. Holcomb-McCoy and Day-Vines (2004) reported internal consistency reliability of $\alpha = .97$ for Multicultural Terminology, $\alpha = .95$ for Multicultural Knowledge, and $\alpha = .85$ for Multicultural Awareness. The MCCTS-R's high internal consistency reliability is proven as Barden and Greene (2015) also reported the whole MCCTS-R has an internal consistency reliability of =.95.

A demographic sheet connected to the last page of the questionnaire was used to collect information on the respondents' age, gender, race, and religion.

2.3 Procedure

This study initially conducted a pilot study on a total of 73 counsellor trainees who were undertaking counselling internship training at selected organisations throughout the Klang Valley and East Malaysia at the time of the study. After establishing the translated and adapted MEI-R's internal reliability and factor structure, the data collection for the actual study started (as reported in subsection 2.3.1). The actual data collection involved a total of 208 counsellor trainees who were chosen through random sampling, and their participation was voluntary.

2.3.1 Exploratory Factor Analysis (EFA)

The Exploratory Factor Analysis (EFA) was conducted using data from the pilot study. Principal Component Analysis (PCA) was used as the extraction method, and the rotation was set for the Varimax method. The Varimax rotation method belongs to the family of orthogonal rotations, which assumes that the components do not correlate with one another (Brown, 2010; Tabachnik & Fidell, 2013). It implies that data that indicates loading on one factor also indicates zero loading on any other factor. This rotation method produces independent and non-redundant components (Brown, 2010). Table 1 presents the results of the Kaiser Mayer Olkin (KMO), and Bartlett test of Sphericity based data from the pilot study. It may be inferred that the MEI-R fulfilled the criteria for PCA implementation, as KMO = .89 exceeded the recommended value of .60 (Kaiser, 1974), and Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance (sig. =.000), supporting the factorability of the correlation matrix.

Table 1. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.891
Bartlett's Test of Sphericity	Approx. Chi-Square	1147.123
	df	210
	Sig.	.000

The factor analysis indicated a two-factor structure with eigenvalues greater than 1.0, accounting for 62.66% of the total variance. A factor loading larger than.30 is considered acceptable by Tabachnick and Fidell (2013) while Hair et al. (2019) and Stevens (2009) recommend .40 as acceptable as the lowest loading in factors analysis which can be included in the scale. The results show that the factor loadings vary from .551 to.825, which is adequate and acceptable. Table 2 shows the revised distribution of the 21 items.

Table 2. The 2-factor structure and distribution of 21 items

Item (Original Numbering)	Item (New Numbering)	Item statement	Factor 1	Factor 2
1a	1	*Komposisi etnik di kawasan kejiranan saya sebelum saya mula bersekolah.*		.780
1b	2	*Komposisi etnik di kawasan kejiranan saya semasa saya di sekolah rendah.*		.825
1c	3	*Komposisi etnik di kawasan kejiranan saya semasa saya di tingkatan menengah rendah*		.818
1d	4	*Komposisi etnik di kawasan kejiranan saya semasa saya di tingkatan menengah atas.*		.781
2	5	*Rakan sepermainan yang datang ke rumah dan berhubung baik dengan ibu bapa saya adalah yang …*		.692
3a	6	*Saya rapat dengan guru yang …*		.553
3b	7	*Saya rapat dengan guru bimbingan dan kaunseling yang …*	.646	
4	8	*Orang yang banyak mempengaruhi pendidikan saya …*	.557	
5	9	*Kawan rapat saya semasa di tingkatan menengah atas …*	.551	
6	10	*Individu yang pernah dating dengan saya adalah …*	.592	
7	11	*Orang yang pernah menjalinkan hubungan rapat dan bermakna dengan saya adalah…*	.652	
8	12	*Pada masa ini, kawan rapat saya adalah …*	.770	
9	13	*Rakan rapat di tempat saya belajar …*	.783	
10	14	*Saya gemar menghadiri majlis perjumpaan semula yang…*	.787	
11	15	*Saya biasanya belajar dengan orang lain yang …*	.712	
12	16	*Saya biasanya melakukan projek dengan orang lain yang …*	.768	

Item (Original Numbering)	Item (New Numbering)	Item statement	Factor 1	Factor 2
13	17	*Kalau saya perlu melibatkan diri dalam suatu perbincangan, saya cenderung kepada kumpulan yang …*	.745	
14	18	*Saya aktif dalam organisasi atau kelompok sosial yang majoriti ahlinya adalah …*	.749	
15	19	*Apabila saya bersama rakan-rakan, saya lazimnya menghadiri majlis yang dihadiri oleh …*	.742	
16	20	*Saya membincangkan perkara peribadi dengan mereka yang …*	.757	
17	21	*Saya kerap kali menghabiskan masa dengan orang yang …*	.793	

2.3.2 Actual Data Collection Procedure

After granted with ethical clearance by JKEUPM, researcher seek permission from the selected public universities with undergraduate counselling programs. The universities were randomly selected through fish bowl method. Then, researcher contacted the program coordinator after granted permission by the university to get the participants information.

The questionnaire was mailed to 208 participants and they were given five weeks to answer the questionnaire. After two weeks, a reminder was sent. Finally, there were 205 completed questionnaire and only 200 responses were analysed after data cleaning process.

2.4 Data Analysis

The data was analysed using the computer programmes SPSS 25 and AMOS 23 to achieve all three of the research objectives. For all of the analysis using 200 viable responses, a significance level of .05 was used.

3 Results

3.1 The Single-Factor Structure

Confirmatory factor analysis (CFA) was used to test the hypothesised factor structure model using the AMOS 23. There are four common indexes used to determine a model fit, the Comparative Fit Index (CFI), Goodness of Fit Indexes (GFI), Incremental Fit Indexes (IFI), and Root Mean Square Error of Approximation (RMSEA) (McDonald & Ho, 2002). In addition, Awang et al. (2018) also suggested a few indices such as RMSEA, GFI, CFI, and Chisq/df. Therefore, this study reported the Chi-square value, the relative Chi-square/degree of freedom, the RMSEA and GFI of absolute fit indices, and the CFI of incremental fit indices.

The MEI-R was originally a two factor-structure as designed by the original author. Similarly, in the current study, the Exploratory Factor Analysis (EFA) results showed the MEI-R as a two-factor structure scale. The translated and adapted Type A items in the MEI-R was made of 21 items. As shown in Figure 1, the results from the CFA model of 21 items had a satisfactory factor loading ranged from .59 to .84, but the CFA model did not fit the data well [x^2 (188) = 680.886, p = .000, x^2/df = 3.622, GFI = .741, CFI =.828, RMSEA = .115]. Figure 2 showed the results from the CFA model of the adapted MEI-R. This model had 7 items that were retained due to their sufficient factor loading ranged from .61 to .81, and the CFA model fitted the data better [x^2 (14) = 33.975, p = .000, x^2/df = 2.427, GFI = .952, CFI =.966, RMSEA = .085]. The other 14 items were eliminated from the construct due to large

modification indices (MI). The percentage of variance for the single factor was 61.15%. All of the fit indices were higher than .90 (Hair et al., 2019) and the RMSEA below .100 (Awang, 2018). As a result, the first postulated model is an excellent fit overall.

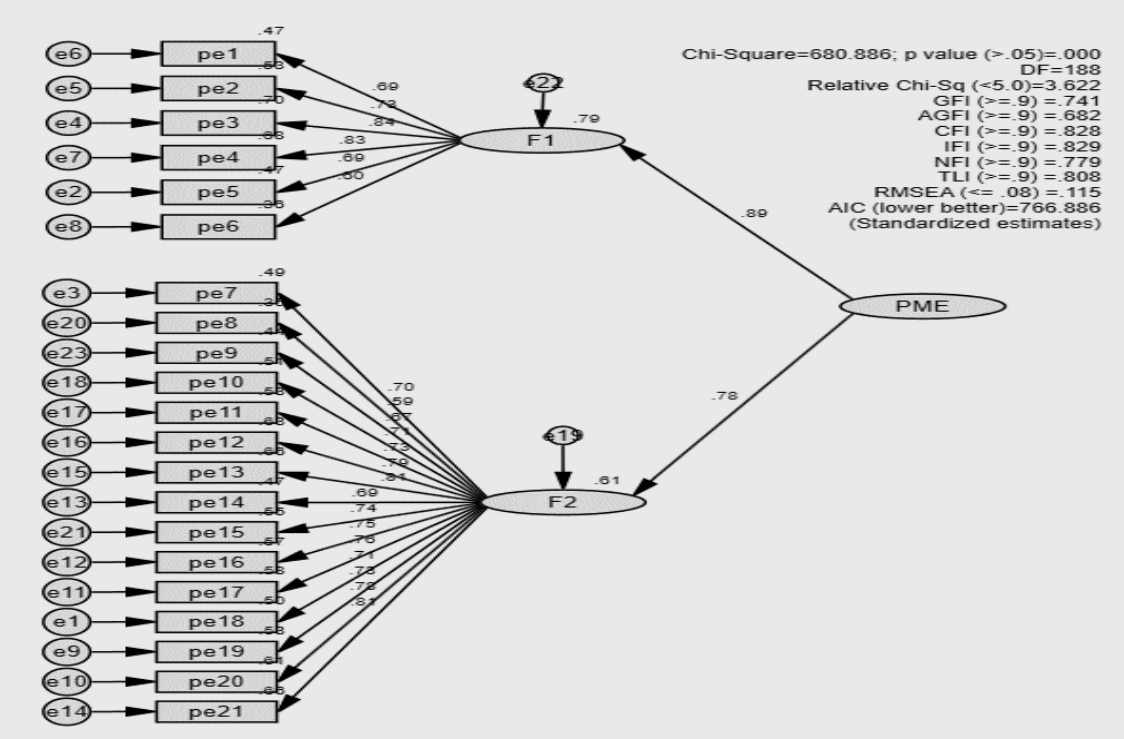

Fig. 1 Original Model

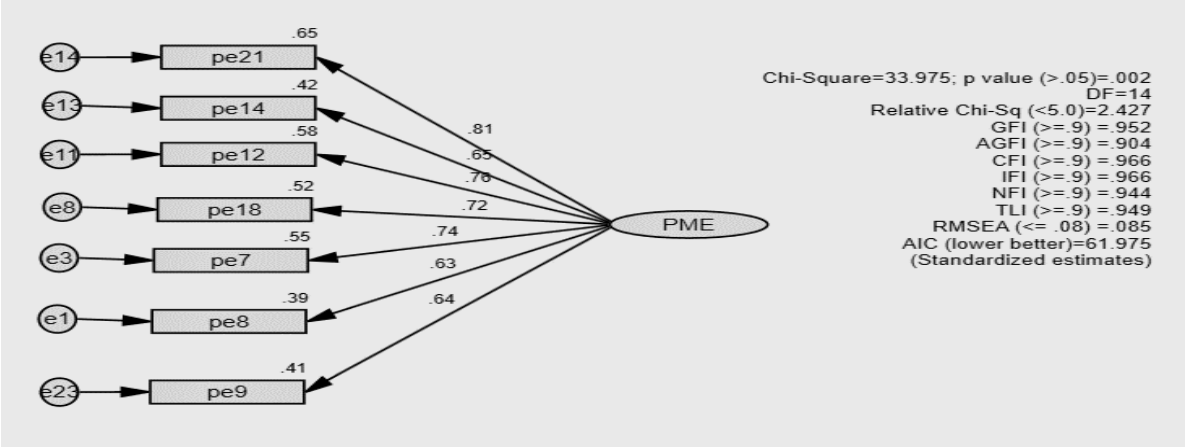

Fig. 2 Adapted Model

For the total sample and subsamples divided by gender, the second model revealed acceptable fit indices and statistically significant factor loadings. Thus, Table 3 presents the fit indices of configural, metric, and scalar invariance models. The configural invariance model, χ^2 (28) = 82.005, p = .000, χ^2/df = 2.214, CFI =.945, RMSEA = .078. For the metric invariance model, χ^2 (35) = 68.889, p = .001, χ^2/df = 1.968, CFI =.945, RMSEA = .070. For the scalar invariance model, χ^2 (42) = 75.843, p = .001, χ^2/df = 2.214, CFI =.945, RMSEA = .078. The three models reported good model fitness.

Table 3. Fit Indices of Configural, Metric, and Scalar Invariance Models

Model	Fit Indices					
	χ^2	df	*p*	χ^2/df	CFI	RMSEA
Model 1: Configural Invariance	82.005	28	.000	2.214	.945	.078
Model 2: Metric Invariance	68.889	35	.001	1.968	.945	.070
Model 3: Scalar Invariance	75.843	42	.001	1.806	.945	.064

The results related to this first multigroup model testing for configural invariance reveal the χ^2 value to be χ^2 = 82.005 with 28 degrees of freedom. The CFI and RMSEA values are .945 and .078 respectively. From this information, it can be concluded that the hypothesized multigroup model of adapted MEI-R structure is well-fitting across male and female counsellor trainees.

The difference in CFA (ΔCFI) was used to compare the configural and metric invariance models, as proposed by Cheung and Rensvold (2002), who claimed that evidence of non-invariance is based on a difference in CFI values with a probability less than .01. The (ΔCFI) result of .001 indicates that the metric invariance was accepted because the (ΔCFI) was less than the .01 cut-off point, as shown in Table 4. It implied that both male and female counsellor trainees used the objects in the same way. The scalar invariance was then tested by comparing the metric and scalar invariance models. The (ΔCFI) between the metric and scalar invariance models was .000, which was less than the .01 cut-off point, indicating that scalar invariance was acceptable. The mean difference in multicultural experience between groups of male and female counsellor trainees may be evaluated once scalar invariance was attained.

Table 4. Model Comparison between Configural, Metric, and Scalar Invariance Models

Model Comparison	ΔCFI	Decision
Model 1 vs Model 2	.000	Metric invariance supported
Model 2 vs Model 3	.000	Scalar invariance supported

3.2 Reliability

Table 5 displays the Cronbach's Alpha with a 95% confidence interval for each of the items as well as the modified item-total correlation and the Cronbach's Alpha if one item is removed. With an Alpha Cronbach coefficient of .875, the whole adapted MEI-R instrument has a high internal consistency reliability.

Table 5. Corrected Item-Total Correlation and Alpha Cronbach If Item Deleted of 11 Items

Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
pe7	.690	.852
pe8	.594	.864
pe9	.603	.863
pe12	.706	.850
pe14	.594	.865
pe18	.657	.856
pe21	.742	.845

In addition to internal consistency, the construct reliability of the adapted MEI-R was also determined. The degree to which the indicator represents the measured latent concept is referred to as construct reliability (Hair et al., 2019). It is calculated by adding the squared sum of factor loadings and the sum of error variance terms for each construct. A reliability of .70 or greater is considered to as good reliability. As a result, the adapted MEI-R achieves satisfactory construct reliability (CR =.866),

indicating that it displays an extremely significant connection between construct components. Hair et al. (2019) stated that high construct dependability means that all of the measures consistently represent the same latent.

3.3 Descriptive Statistics

Table 6 shows the mean, standard deviation, skewness, and kurtosis of each item. The standard deviation goes from .768 to .833 and the mean ranges from 1.680 to 2.020. The items are normally distributed based on skewness and kurtosis, as long as the skewness and kurtosis values are between ±2.00 and ±7.00.

Table 6. Descriptive statistics of MEI-R items

Item	Mean	Std. Deviation	Skewness	Kurtosis
pe7	1.810	.798	.356	-1.344
pe8	2.020	.783	-.035	-1.363
pe9	1.680	.794	.639	-1.126
pe12	1.730	.819	.536	-1.303
pe14	2.000	.833	.000	-1.560
pe18	2.070	.786	-.124	-1.369
pe21	1.770	.768	.419	-1.192
Total	1.869	.602	.242	-.976

Table 7 shows the results of the MEI-R descriptive statistics measures as well as two other scales employed in the study. The scale used a response format of a 5-point scale in which each point has its value. A response of 1 and 5 for the items received one point. Responses of either 2 or 4 received two points, and responses of three received three points. The mean of summated personal multicultural experience scores was computed as a mean score from 1 to 3. The computed means were categorized using three levels that are low (1.00 – 1.67), moderate (1.68 – 2.35), and high (2.36 – 3.00). The results indicated that 40% of respondents rated low on personal multicultural experience, 36.5% rated moderate, and 23.5% rated a high level of personal multicultural experience. Higher scores are indicative of a greater degree of multiculturalism. All in all, the counsellor trainees' overall level of personal multicultural experience was at the lower side of moderate level.

Table 7. Descriptive statistics measures for the scales used in the study

Scale		Mean	Std. Deviation	Skewness	Kurtosis
MEI-R	Single-factor	1.869	.602	.242	-.976
MCSE-RD	Factor 1	5.738	1.418	5.738	1.418
	Factor 2	6.241	1.399	6.241	1.399
	Factor 3	5.484	1.456	5.484	1.456
MCCTS-R	Factor 1	2.497	.558	2.497	.558
	Factor 2	2.611	.549	2.611	.549
	Factor 3	2.563	.591	2.563	.591

* α = Cronbach's alpha coefficient

Table 8 shows how independent sample t-tests were used to evaluate the differences between genders. Males' MEI-R scores (M = 1.861, SD =.660) and females' MEI-R scores (M = 1.871, SD =.589; t (198) = -.094, p =.925) reveal no significant differences. The differences in averages were very minimal (eta squared =.000).

Table 8. Mean difference of MEI-R according to gender

	Gender	*N*	Mean	Std. Deviation	t	df	Sig. 2 tailed
Single Factor	Male	41	1.861	.660	−.094	198	.925
	Female	159	1.871	.589			

3.4 External Validity

External validity was tested by calculating the Pearson correlation coefficients for the relationships between the MEI-R and two other measures, MCSE-RD, and MCCTS-R. The findings, as presented in Table 9, show the correlations between MEI-R, MCSE-RD, and MCCTS-R. It can be seen from the table that there was a significant correlation between the single factor of MEI-R and the total MCCTS-R. Thus, the conclusion drawn is that the external validity of adapted MEI-R was satisfying.

Table 9. Correlation coefficients between the MEI-R and assessed external variables

Variables	MEI-R
MCSE-RD	-.013
MCCTS-R	.158*

*p < .05

3.5 Convergent Validity

Convergent validity assessment is also possible with the CFA. The requirement that items of indicators for a given construct converge or share a high amount of variation in common is known as convergent validity (Hair et al., 2019). It is determined based on value of the Factor loading and Average Variance Extracted (AVE). According to Douka et al. (2009), the cut-off value for factor loading must be at least .40 for a measurement to be valid. Standardized loading estimates, on the other hand, should be .50 or higher, with all factors statistically significant at the least (Hair et al., 2019). The CFA findings reveal that factor loadings for each observed item were greater than .50, and the AVE met the .50 thresholds (AVE =.520). As a result, the construct achieved convergent validity.

4 Discussion

The aim of this study was to examine the psychometric properties of the MEI-R in the Malaysian cultural context. Prior to this, this study evaluated the hypothesised structure of the MEI-R as a product of the EFA. In addition, this study assessed the invariance of the adapted model according to counsellor trainees' gender groups. The CFA confirmed the tested single-factor structure of the MEI-R on the total sample and one subsample (i.e., gender). The study did not find similar evidence in the findings of previous studies that could strengthen this result. There is limited published evidence on the MEI-R factor structure, and the most recent study by Chaichanasakul (2011) which also utilised the English version of MEI-R did not provide information on its factor structure. Therefore, the finding on the MEI-R's single-factor structure needs to be confirmed by conducting further research in other cultural contexts. Nevertheless, the findings on the invariance of the MEI-R across two gender groups imply that this adapted model could be tested and used on other samples, such as school counsellors, professional counsellors, or counsellor educators.

Even though this study's main goal of adapting the two factors was not fulfilled, this measure is still useful for researchers who are interested in exploring the effect of multicultural experiences, particularly the experience gained during the formative years, on counsellors or therapists' personalities, cognitive complexity, psychological flexibility, and competency. The significance of multicultural experiences has been explained by the Cognitive and Cultural Flex Theory of Personality (CCFTP) as proposed by Ramirez (1991), who is also the author of MEI.

Three reasons provide justifications for the construction of this scale. Firstly, since the MEI was developed in the Western context, this new adapted MEI-R is expected to be more useful for other contexts, such as the Eastern context in the case of this study. Secondly, the MEI was developed during the 1990s and was still used in 2011 (in the Western context). Therefore, the construction of this scale provides a more time-relevant version of the MEI-R. Thirdly, through a reliable and valid MEI-R, its outcome can provide an early and immediate picture of the counsellor trainees' multicultural exposure and interactions that they gained from their personal lives. This input is important and beneficial to counsellor educators in planning the teaching and learning activities such as which topic he/she should give extra focus on and how he/she should deliver that topic. Planning the learning experiences for the counsellor trainees is important in order to facilitate meaningful learning for the learners (Norhafezah Yusof et al., 2020).

The reliability coefficient value of the MEI-R ($\alpha = .875$) is considerably high. Other studies that adapted the MEI-R also reported high-reliability coefficients with values ranging from $\alpha = .86$ to $\alpha = .96$. Specifically, the internal reliability values obtained by previous studies are $\alpha = .81$ (Karcher & Fischer, 2004), and $\alpha = .96$ (Chaichanasakul, 2011). The high α values reflect adequate internal consistency of the MEI-R. Thus, the MEI-R items have the ability to measure the intended construct and produce consistent scores (Tang et al., 2014). Moreover, the MEI-R shows satisfactory reliability with CR = .866, reflecting that all measures consistently reflect the same latent construct (Hair et al., 2019).

The mean scores for the MEI-R subscales reflect that the counsellor trainees in this study had a moderately low multicultural experience. This finding contradicts the result of Chaichanasakul (2011), who reported a high mean score for the MEI. This difference may be explained by his study's sample, which consisted of diverse ethnicities and nationalities. Even though all humans have a similar biological brain structure, they process information differently based on their culture, especially ethnic heritage (Ambady, 2011). In this study, there is no significant difference in the MEI-R scores between genders. This finding is consistent with Chaicahanasakul (2011) who found no significant difference between males and females based on the results of multivariate analysis of variance (MANOVA).

This study found no relationship between the MEI-R and multicultural counselling self-efficacy. Personal multicultural experience portrays the multicultural encounters of the counsellor trainees during their formative years. In this research, this lived experience in their culture did not seem to correlate with their confidence (multicultural counselling self-efficacy) in working with multicultural clients. The results of this study is in line with a study in the multicultural education field by Strickland (2018), who also found no significant relationship between multicultural self-efficacy and personal multicultural experience, which she referred to in her research as "experience with diversity". The lack of a significant relationship between these two variables may be due to the need for cognitive flexibility to adapt to different cultures confidently (Ramirez, 1991; Kim & Omizo, 2006).

Nevertheless, there is a significant correlation between the MEI-R and the measure of multicultural counselling competence (MCCST-R's multicultural knowledge and multicultural terminology). This relationship is supported by the Social Cognitive Theory (Bandura, 1986), which theorizes that there is a relationship between personal agency and the environment. The significant but weak relationship between the MEI-R and multicultural counselling competence (MCCST-R's multicultural terminology) is supported by the findings of Chaichanasakul (2011). He found a positive and significant correlation between multicultural experience and multicultural competence with $r = .12$ at $p < .05$. The weak correlation value may be attributed to moderator or mediator variables, such as the quality of multicultural experience, multicultural personality, multicultural interest, and psychological flexibility. Therefore, this result suggests that the MEI-R has fair external validity. Finally, CFA confirmed convergent validity, with the AVE of .520 exceeding the cut-off value of .50. This result indicates that the seven MEI-R items all have a sufficient proportion of variance in common to capture multicultural experiences.

5. Conclusion

The hypothesised single factor structure of the MEI-R was confirmed, and it is applicable to use across genders. Moreover, sufficient and satisfactory reliability and validity warrant MEI-R's usability among counsellor trainees. Therefore, the MEI-R is a convincing measure to quantify counsellor

trainees' multicultural exposure and interaction. Counsellor trainees with higher multicultural experience are expected to be more knowledgeable in recognising and integrating cultural resources from themselves and clients in achieving counselling goals. Greater multicultural experience may foster improved multicultural competencies. Practically, this scale is reliable and valid in measuring the contributing variables, such as personal multicultural experience in developing a better understanding and framework of multicultural counselling competence, according to the SCT framework. Nevertheless, the findings of this study are limited to counsellor trainees only. Therefore, future researchers are encouraged to explore the MEI-R efficacy further, perhaps by including a larger sample size and other population categories, such as school counsellors and professional counsellors.

6. Declaration of conflict of interest

The author(s) declared that there were no unusual circumstances surrounding the research, authorship, or publishing of this article. The correspondent author's permission is required for reprinting the article or reusing the adapted and Malay translated MEI-R.

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