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Kertas Asli/*Original Articles*

A Preliminary Content Validity Study of the Malay Version of READI-SF
(Kajian Awal Kesahan Kandungan Versi Bahasa Melayu bagi READI-SF)

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ABSTRACT

Readiness for treatment reflects the individual's motivation to seek help and preparedness to engage in treatment activities. The READI-SF aimed to assess parental readiness to engage in treatment. The present study aimed to translate the English version of READI-SF into the Malay language and subsequently assess its content validity using the content validity ratio (CVR), content validity index (CVI) and modified kappa analyses. Four independent translators carried out the translation procedures. Eight clinical professionals were involved as content experts. Of 17 items, six items needed to be revised due to low CVR values (< 0.75). Based on unfavourable individual CVI (I-CVI) results (< 0.78), two items (for item relevancy) and six items (for item clarity) had to be modified. The overall CVI of the questionnaire (S-CVI) was found to be good (i.e., 0.91 for item relevancy and 0.83 for item clarity). Nine items needed to be revised, and the modifications were carried out accordingly. At the end of the study, a valid Malay-translated READI-SF was produced. It has good potential to serve as a clinical tool to assess the readiness of Malay-speaking parents to engage in treatment. However, prior to its intended clinical application, further research is warranted to assess other aspects of validity (e.g., face validity, construct validity, and criterion-related validity), as well as READI-SF reliability.

Keywords: READI-SF; content validity index; content validity ratio; Malay language.

ABSTRAK

Kesediaan untuk rawatan mencerminkan motivasi individu untuk mendapatkan bantuan dan kesediaan untuk melibatkan diri dalam aktiviti rawatan. READI-SF bertujuan untuk menilai kesediaan ibu bapa untuk melibatkan diri dalam rawatan. Kajian ini bertujuan untuk menterjemah versi Bahasa Inggeris READI-SF ke dalam Bahasa Melayu dan seterusnya menilai kesahan kandungannya menggunakan nisbah kesahan kandungan (CVR), indeks kesahan kandungan (CVI), dan analisis kappa yang diubah suai. Prosedur terjemahan telah dilakukan oleh empat penterjemah bebas. Lapan orang profesional klinikal terlibat sebagai pakar kandungan. Daripada 17 item, enam item perlu disemak kerana nilai CVR yang rendah (< 0.75). Berdasarkan keputusan CVI individu (I-CVI) yang tidak menggalakkan (< 0.78), dua item (untuk kerelevanan item) dan enam item (untuk kejelasan item) perlu diubah suai. Keseluruhan CVI soal selidik (S-CVI) didapati baik (iaitu, 0.91 untuk kerelevanan item dan 0.83 untuk kejelasan item). Sembilan item perlu disemak, dan pengubahsuaian telah dilakukan dengan sewajarnya. Pada akhir kajian, READI-SF terjemahan bahasa Melayu yang sah telah dihasilkan. Ia mempunyai potensi yang baik untuk berfungsi sebagai alat klinikal bagi menilai kesediaan ibu bapa penutur bahasa Melayu untuk melibatkan diri dalam mendapatkan rawatan. Walaubagaimanapun, sebelum aplikasi klinikal yang dimaksudkan, penyelidikan lanjut adalah wajar untuk menilai aspek kesahan yang lain (contohnya, kesahan permukaan, kesahan gagasan, dan kesahan berkaitan kriteria), serta kebolehpercayaannya READI-SF.

Kata kunci: READI-SF; indeks kesahan kandungan; nisbah kesahan kandungan; bahasa Melayu

INTRODUCTION

The concern in readiness is the stage or degree to which an individual is "ready" to change (Andrade et al. 2015). Readiness, defined as willingness or openness to engage in a specific activity or to adopt a particular action, has provided a useful heuristic for understanding engagement (DiClemente et al. 2004). Readiness is consistent with the transtheoretical model (TTM) that explores the stages and processes involved in behaviour change and predicts that client engagement is related to these processes (Derisley & Reynolds 2002; Prochaska & Norcross 2018). Specifically, readiness herein encompasses the readiness for change and readiness for treatment. Readiness for change entails the perceived importance of the problem and the individual's belief in their ability to change. Readiness for treatment reflects the individual's motivation to seek help, preparedness to engage in treatment activities, and how those factors impact patient treatment attendance, compliance, and outcome (DiClemente et al. 2004).

Understanding parents' pre-treatment motivation to engage in therapies is crucial to understanding why parents seek and remain engaged in intervention differentially. Treatment readiness is important in parent training programs, counselling, or family-centred intervention as the programs place a high level of action-oriented demands on caregivers (Chaffin et al. 2009). Appropriate intervention and meaningful participation in the treatment process are required to achieve positive behavioural change (Wilczynski 2017). Individual attitudes (i.e., treatment satisfaction and perceptions about treatment efficacy) could influence engagement behaviours such as participating in treatment and engaging more actively in the intervention.

To date, several measures assessing parental readiness have been studied, including Parent Readiness for Change Scale (Brestan et al. 1999a), Readiness, Efficacy, Attributions, Defensiveness, and Importance Scale (READI; Brestan et al. 1999b), and Parent Motivation Inventory (PMI; Nock & Photos 2006). The READI was designed to provide an index of parental readiness to change parenting behaviours. It consists of 61 items that examine seven constructs related to treatment engagement (readiness to change parenting style, parental self-efficacy to change parenting behaviours, parental attributions about the child's behaviour, defensiveness or openness to change, and parents' perceived importance of treatment).

Subsequently, a short version of READI, i.e., Readiness, Efficacy, Attribution, Defensiveness, and Importance Scale-Short Form (READI-SF) was designed with 17 items from the two scales, aiming to assess different components of engagement: readiness and perceived importance of treatment (Chaffin et al. 2009; Proctor et al. 2015). The *Readiness scale* was developed to assess caregivers' willingness to change parenting behaviours (e.g., "I'm ready to start working on my parenting"), and the *Importance scale* assesses the relative importance caregivers place on the situation at this time (e.g., "It is very important that my child's behaviour problems are fixed"). The measure's scores could represent a variety of factors influencing caregivers' participation in services, such as external impediments or a perceived lack of concerns with child behaviour. The instrument must be tested for validity and reliability before its intended applications. Content validity, criterion validity, and construct validity are among the standard validity measures reported in the literature (Almanasreh et al. 2019). In many studies, the instrument's content validity is assessed first, followed by other subsequent validity measures (Lopez et al. 2021; Momayyezi & Fallahzadeh 2020).

It is worth noting that validating the content of instruments via subjective judgments of researchers (based on the literature review or informal consultations with experts) may produce biased outcomes. In this regard, validation methods that are more systematic and quantitative are preferable (Souza et al. 2017). Content validity ratio (CVR) and content validity index (CVI) are among the common quantitative validity measures to assess the content validity of dedicated questionnaires (Zakaria et al. 2017; Zamanzadeh et al. 2015). In these tasks, specific scores are given by the content experts and serve as the basis for the researchers' decision on whether the items on the scale should be retained, modified, or deleted. The CVR is used to ascertain the content validity of items through empirical measurements, is more practical in terms of time and cost, and is easy to administer and implement (Zamanzadeh et al. 2015). The CVI is used to determine the content validity in rating the relevancy of the items on the questionnaire (Balachandran et al. 2022). In both CVR and CVI tasks, content experts review each item on the instrument based on specific guidelines, and a decision is made (Zamanzadeh et al. 2015). Subsequently, the researchers make the required modifications to achieve the desired content validity (Boateng et al. 2018).

Collectively, given its importance and the robustness of its psychometric property, there is a need to have a validated READI-SF to be used among specific populations. Currently, a Malay version of this questionnaire is not readily available for its intended applications. In view of this, the present study aimed to translate the English version of the READI-SF into the Malay language and assess the content validity of the latter (using CVR and CVI approaches). This preliminary effort was carried out to have a Malay language version of READI-SF to identify parental readiness to engage in treatment among the Malaysian population. This could be beneficial to clinical

professionals (especially speech-language therapists and audiologists) in predicting important treatment outcomes, the stage of the client's readiness for change before undergoing intensive therapy, and caregivers of patients who can only understand and read the Malay language.

MATERIALS AND METHODS

PROCEDURE

The procedure for the present study was divided into two phases. The process of translating the original English version of READI-SF into the Malay version was the first phase. Subsequently, the content validity of the Malay-translated version of READI-SF was evaluated in the second phase using the content validity ratio (CVR) and content validity index (CVI) approaches. Prior to the data collection, ethical approval to conduct this study was obtained from the Human Research Ethics Committee USM (Universiti Sains Malaysia). The required permission was also received from the READI-SF's authors.

RESEARCH INSTRUMENT

The READI-SF consists of 17 items aimed at assessing readiness for treatment and belief in the importance of treatment (Proctor et al. 2015). Items on the READI-SF are rated on a five-point Likert scale, from 1 (Strongly Disagree) to 5 (Strongly Agree). To score, the items on each scale are added up. Then the two scale scores are summed for an overall readiness score. The Readiness scale and Importance scale scores range from 8 to 40 and 9 to 45, respectively. Total scores range from 17 to 85, with higher scores indicating greater parental readiness to engage in services. Cronbach's alpha for the overall score of this questionnaire was 0.94 (Proctor et al. 2018).

TRANSLATION OF ENGLISH VERSION OF READI-SF INTO THE MALAY LANGUAGE (FIRST PHASE)

In this first phase, the original English version of READI-SF was translated into the Malay language version. The translation process involved two stages, and four qualified bilingual translators agreed to participate in this task. All the translators had good proficiency in English. The first stage was about the forward translation process. That is, the original English version of READI-SF was translated into Malay by an experienced researcher (in the field of psychology) and a qualified SLP from the respective institution, whose primary language is Malay. After the translation was checked several times for adequacy of wording and sentences, the second stage was conducted. Herein, two qualified English language lecturers (from the same institution) were invited to translate the Malay language version of READI-SF back into the English language. This stage is known as the backward translation (Behr 2017). The English-translated version was subsequently compared with the original English version of the questionnaire for consistency check. Overall, the result was satisfactory as there were no apparent discrepancies between the original and back-translated English versions. Some modifications were made, and ultimately, the optimum version of the Malay-translated READI-SF questionnaire was produced and ready to be tested for its content validity in the second phase of the study.

CONTENT VALIDATION OF THE MALAY VERSION OF READI-SF (SECOND PHASE)

To assess the content validity of the Malay version of READI-SF, eight clinical experts were invited via email to participate in the study. All of them were staff members of the respective institution and were chosen based on their expertise and experience in speech-language pathology and occupational therapy.

Upon the agreement to join the study, a hardcopy letter of invitation was given to the respective content experts. The scoring methods and required instructions were sent to them via email. To complete this task, the content experts needed to fill up two forms: the rating form on content validity ratio (CVR) and the rating form on content validity index (CVI). A three-point scale ranging from 1 to 3 (1 = "not necessary", 2 = "useful but not essential", 3 = "essential") was used to calculate the CVR for each item. Subsequently, for calculating the CVI values, the content experts were asked to rate the instrument items in terms of their relevancy and clarity to the construct underlying the study (Zamanzadeh et al. 2015; Saremi et al. 2022). A 4-point scale was used to rate the relevancy (i.e., 1 = "not relevant", 2 = "somewhat relevant", 3 = "quite relevant", 4 = "highly relevant") and clarity (1 = "not clear", 2 = "somewhat clear", 3 = "quite clear", 4 = "highly clear") of each item. The analysis of the CVR and CVI was conducted once all the evaluation forms were returned to the researchers in about one week.

DATA ANALYSIS

The collected data were analysed using Microsoft Excel 2019. Numerical codes were used to replace the identities

of the experts involved for confidentiality purposes. The respective CVR and CVI values were calculated accordingly. The opinions of the experts, including their comments and suggestions, were also included in the data analysis.

For calculating the CVR value for each item on the Malay version of READI-SF, the formula used is CVR = $(N_e - N/2)/(N/2)$, where N_e is the number of content experts indicating "essential" and N is the total number of content experts (Lawshe 1975). The calculated CVR may range from -1 to 1, where a CVR of -1 means none of the experts' rate the item as "essential", while a CVR of 1 means all experts rate the item as "essential". Of note, the minimum acceptable value (to achieve good content validity) depends on the number of experts involved (Lawshe 1975). For instance, a minimum CVR value of 0.75 is needed if eight experts are involved. On the other hand, when 15 experts are involved, a minimum CVR value of 0.49 should be achieved (Lawshe 1975). Items revision and deletion are recommended if the CVR values are below acceptable levels (Zamanzadeh et al. 2015).

There are two types of CVI, i.e., the content validity of an individual item (I-CVI) and the overall content validity of the scale (S-CVI) (Balachandran et al. 2022). To obtain the I-CVI for the relevancy and clarity of each item on the Malay version of READI-SF, the number of content experts judging the item as relevant or clear (rating 3 or 4) is divided by the number of content experts. The S-CVI is determined by averaging all 17 I-CVI values of the questionnaire. To achieve acceptable content validity, the I-CVI of the questionnaire should be 1.00 when there are five or fewer content experts, and if there are six or more experts, the recommended I-CVI is at least 0.78 (Zamanzadeh et al. 2015; Polit et al. 2007). As such, revision or deletion of items is recommended if the I-CVI is lower than 0.78 (Polit et al. 2007). On the other hand, the S-CVI value of at least 0.80 indicates that the scale has acceptable content validity. If the S-CVI value is 0.90 or higher, the content validity of the scale is considered excellent (Polit et al. 2007).

Additionally, because there is a risk of having a random chance agreement in the CVI task, regardless of the number of experts involved (Wynd et al. 2003), kappa statistic was also used to support the I-CVI value for each item on the questionnaire. The formula used is K = (I-CVI - Pc)/(1 - Pc), where $Pc = [N/A(N-A)]*0.5^N$ (Zamanzadeh et al. 2015). Specifically, Pc = the probability of chance agreement, N = the number of all content experts, and A = the number of content experts who agree the item is relevant. The inter-rater agreement is deemed excellent if the kappa value is at least 0.75, good if it is between 0.60 and 0.74, fair if it is between 0.40 and 0.59, and poor if it is less than 0.40 (Cicchetti & Sparrow 1981; Cicchetti 1994).

RESULTS

TRANSLATION PROCESS OF THE ENGLISH VERSION OF READI-SF

The first stage of the study was about translating the original English version of READI-SF into the Malay language version. To achieve the desired outcomes, both forward and backward translation procedures were conducted accordingly by four qualified translators. Recall that the forward translation process was carried out by two translators who were familiar with the items on the questionnaire (based on their work experience in the fields of psychology and speech-language pathology). On the other hand, the backward translation process was performed by the other two translators (English language lecturers), who had no experience with the items on the questionnaire. All translators were Malay, and the average age was 44.0 years (*SD* = 6.7). Their work experience in the respective field ranged from 13-25 years (*M* = 18.3, *SD* = 5.4). The required modifications were carried out accordingly based on the discussions with the translators. Conclusively, the optimum version of the Malay-translated READI-SF was produced, and Table 1 shows the one-to-one comparison of the original English language items on the READI-SF and the respective Malay-translated items.

CONTENT VALIDATION OF THE MALAY VERSION OF READI-SF

To determine the content validity of the Malay version of READI-SF, ten experienced clinical experts were approached. However, only eight of them agreed to participate as content experts. Particularly, five of them were SLPs (three females), and the remaining three were occupational therapists (two females). All of them were Malay, with the average age was 38.4 years (SD = 6.0). Their work experience ranged from 10-24 years (M = 14.9, SD = 5.4).

The content validity of the questionnaire was assessed by means of the CVR and CVI methods. Additionally, the modified kappa analysis was also carried out to support I-CVI results. Table 2 shows the respective values of CVR, I-CVI (relevancy of item), kappa (relevancy of item), I-CVI (clarity of item), and kappa (clarity of item) for each item. As indicated, in the CVR task, 11 items (64.7%) produced a CVR of 1.00, indicating excellent content validity. The remaining six items (items 1, 4, 9, 11, 15 & 17) revealed a CVR of 0.50 (below the critical value, i.e., 0.75) and should be revised. In the CVI task, the I-CVI (relevancy of item) values ranged from 0.63-1.00. Of 17 items, 15 of them (88.2%) exceeded the acceptable I-CVI value (≥

TABLE 1. Comparison of READI-SF items between the original English version and Malay-translated version

Item	Original item (English version)	Translated item (Malay version)
1.	I am ready to start working on my parenting	*Saya bersedia untuk memulakan tugas saya sebagai ibu bapa*
2.	Bad things could happen if my child's behaviour does not get better	*Perkara buruk boleh terjadi jika tingkah laku anak saya tidak semakin baik*
3.	I am ready to change my parenting	*Saya bersedia untuk mengubah cara keibubapaan saya*
4.	It is worth it to spend money to help my child with his/her behaviour	*Adalah berbaloi untuk membelanjakan wang bagi membantu mengubah tingkah laku anak saya*
5.	It is very important that my child's behaviour problems are fixed	*Adalah sangat penting masalah tingkah laku anak saya dapat dipulihkan*
6.	I need to learn to be more consistent	*Saya perlu belajar untuk menjadi lebih berpendirian*
7.	I am eager to learn any skills that the therapist can teach me	*Saya berminat untuk mempelajari apa sahaja kemahiran yang diajar oleh ahli terapi*
8.	I want to change the way I discipline my child	*Saya mahu mengubah cara saya mendisiplinkan anak saya*
9.	It is time to change the way my child and I get along	*Telah tiba masanya untuk mengubah cara perhubungan saya dan anak*
10.	If things do not change, my child's future could be hurt	*Jika tiada perubahan dilakukan, masa depan anak saya mungkin terjejas*
11.	I will work on my child's behaviour problems later	*Saya akan berusaha terhadap masalah tingkah laku anak saya kemudian nanti*
12.	Things that related with my child's behaviour have to change very soon	*Perkara berkaitan tingkah laku anak saya harus diubah dengan segera*
13.	It is very important that my child and I get help	*Adalah sangat penting anak saya dan saya mendapat bantuan*
14.	I am willing to do whatever it takes to be sure that we get help	*Saya bersedia melakukan apa sahaja untuk memastikan saya dan anak saya dibantu*
15.	I have problems that are more important than my child's behaviour right now	*Saya mempunyai masalah yang lebih penting berbanding dengan masalah tingkah laku anak saya ketika ini*
16.	It might be hard, but I am ready to do parenting differently	*Adalah mungkin sukar, tetapi saya bersedia untuk mengubah cara keibubapaan saya*
17.	I would like to learn what will work to change my child's behaviour	*Saya bersedia untuk belajar sesuatu yang boleh mengubah tingkah laku anak saya*

TABLE 2. Content validity ratio (CVR), individual item content validity index (I-CVI) and kappa value for each item on the Malay version of READI-SF

Item	CVR	I-CVI (relevancy)	Kappa (relevancy)	I-CVI (clarity)	Kappa (clarity)
1	0.50	0.88	0.88	0.63	0.63
2	1.00	0.88	0.88	0.88	0.88
3	1.00	1.00	1.00	0.63	0.63
4	0.50	0.88	0.88	1.00	1.00

continue...

...cont.

5	1.00	0.88	0.88	0.88	0.88
6	1.00	1.00	1.00	0.75	0.75
7	1.00	1.00	1.00	1.00	1.00
8	1.00	1.00	1.00	0.88	0.88
9	0.50	0.75	0.75	0.50	0.50
10	1.00	1.00	1.00	1.00	1.00
11	0.50	0.88	0.88	0.63	0.63
12	1.00	0.88	0.88	1.00	1.00
13	1.00	1.00	1.00	0.88	0.88
14	1.00	1.00	1.00	0.88	0.88
15	0.50	0.63	0.63	0.88	0.88
16	1.00	1.00	1.00	0.75	0.75
17	0.50	0.88	0.88	1.00	1.00

0.78). Only two items (items 9 & 15) were below the recommended level and should be revised (Table 2). For each item, the kappa value for the relevancy of item was similar to that of the I-CVI result, indicating good to excellent inter-rater agreement. Regarding the clarity of item, the I-CVI values ranged from 0.63-1.00, with 11 items having I-CVI values of at least 0.88. Herein, the other six items (items 1, 3, 6, 9, 11 & 16) should be revised due to low I-CVI results (0.50-0.75). The respective kappa analysis revealed 16 items to have good to excellent inter-rater agreement, while fair agreement was noted for item 9 (Table 2). The I-SCVI results for the item's relevancy and clarity were 0.91 and 0.83, respectively.

Table 3 shows the decision made for each item based on the results of CVR, I-CVI (relevancy of item), kappa (relevancy of item), I-CVI (clarity of item), and kappa (clarity of item). Recall that for the CVR and I-CVI measures, items must be at least 0.75 and 0.78, respectively, to be retained. For the kappa statistic, only items with excellent inter-rater agreement (≥ 0.75) were retained. As shown in Table 3, while some items showed consistent results (i.e., "retained" by all five measures), inconsistent outcomes were seen for other items. In this regard, a collective approach was employed to provide the overall decision for each item on the questionnaire. That is, to decide whether the items should be retained or revised, the

TABLE 3. Decision for each item on the Malay version of READI-SF based on content validity ratio (CVR), individual item content validity index (I-CVI) and kappa values

Item	CVR	I-CVI (relevancy)	Kappa (relevancy)	I-CVI (clarity)	Kappa (clarity)	Overall
1*	*Revised*	Retained	Retained	*Revised*	*Revised*	*Revised*
2	Retained	Retained	Retained	Retained	Retained	Retained
3*	Retained	Retained	Retained	*Revised*	*Revised*	*Revised*
4*	*Revised*	Retained	Retained	Retained	Retained	*Revised*
5	Retained	Retained	Retained	Retained	Retained	Retained
6*	Retained	Retained	Retained	*Revised*	Retained	*Revised*
7	Retained	Retained	Retained	Retained	Retained	Retained
8	Retained	Retained	Retained	Retained	Retained	Retained
9*	*Revised*	*Revised*	Retained	*Revised*	*Revised*	*Revised*
10	Retained	Retained	Retained	Retained	Retained	Retained
11*	*Revised*	Retained	Retained	*Revised*	*Revised*	*Revised*
12	Retained	Retained	Retained	Retained	Retained	Retained
13	Retained	Retained	Retained	Retained	Retained	Retained
14	Retained	Retained	Retained	Retained	Retained	Retained

continue...

...cont.

15*	*Revised*	*Revised*	*Revised*	Retained	Retained	*Revised*
16*	Retained	Retained	Retained	*Revised*	Retained	*Revised*
17*	*Revised*	Retained	Retained	Retained	Retained	*Revised*

*Item that requires revision based on the overall decision

TABLE 4. Modified items on the Malay version of READI-SF

Item	Translated item	Modified item
1	Saya bersedia untuk memulakan tugas saya sebagai ibu bapa	Saya bersedia untuk melaksanakan tanggungjawab keibubapaan saya
3	Saya bersedia untuk mengubah cara keibubapaan saya	Saya bersedia untuk mengubah gaya keibubapaan saya
4	Adalah berbaloi untuk membelanjakan wang bagi membantu mengubah tingkah laku anak saya	Saya rasa berbaloi untuk membelanjakan wang bagi membantu mengubah tingkah laku anak saya
6	Saya perlu belajar untuk menjadi lebih berpendirian	Saya perlu belajar untuk menjadi lebih konsisten
9	Telah tiba masanya untuk mengubah cara perhubungan saya dan anak	Inilah masanya untuk mengubah cara saya dan anak bergaul
11	Saya akan berusaha terhadap masalah tingkah laku anak saya kemudian nanti	Saya akan menyelesaikan masalah tingkah laku anak saya kemudian
15	Saya mempunyai masalah yang lebih penting berbanding dengan masalah tingkah laku anak saya ketika ini	Saya mempunyai masalah yang lebih penting daripada tingkah laku anak saya sekarang
16	Adalah mungkin sukar, tetapi saya bersedia untuk mengubah cara keibubapaan saya	Saya bersedia mengubah gaya keibubapaan saya walaupun sukar
17	Saya bersedia untuk belajar sesuatu yang boleh mengubah tingkah laku anak saya	Saya bersedia untuk mempelajari cara mengubah tingkah laku anak saya

results of the five measures were all taken into consideration. Specifically, to retain the specific items, all five measures must agree with each other. Any disagreement between them would result in the items having to be revised. The overall decision resulted in 9 items to be revised (items 1, 3, 4, 6, 9, 11, 15, 16 & 17) (Table 3).

MODIFICATIONS OF ITEMS ON THE MALAY VERSION OF READI-SF

Based on the content validity results and specific comments from the content experts, the required modifications were made accordingly. Table 4 shows the respective items after they were modified. The suggested modifications were indeed essential to further enhance the suitability and understandability of the items. The respective content experts then reviewed the revised items for verification. Finally, they were satisfied with the modifications (as all comments were appropriately addressed), and no further amendments were required. Table 5 shows all items in the final version of the Malay-translated READI-SF.

DISCUSSION

Obtaining information on the readiness of parents to engage in dedicated interventions is advantageous in clinical settings. To serve this purpose, the READI-SF was designed, and its psychometric properties were found to be robust (Proctor et al. 2018). In the present study, the original English version of READI-SF has been translated into the Malay language accordingly, and the content validity of the Malay-translated READI-SF was assessed using several quantitative measures.

TRANSLATION OF THE READI-SF

In the present study, four independent bilingual translators were involved in the forward and backward translation procedures. In line with this, a minimum of two bilingual translators is suggested in the translation process of questionnaires (Hall et al. 2018). In the forward translation procedure, both translators (researcher and SLP) were familiar with the questionnaire. While in the backward translation process, the other two translators (English

TABLE 5. The final version of Malay-translated READI-SF with 17 validated items

Item	
1	Saya bersedia untuk melaksanakan tanggungjawab keibubapaan saya
2	Perkara buruk boleh terjadi jika tingkah laku anak saya tidak semakin baik
3	Saya bersedia untuk mengubah gaya keibubapaan saya
4	Saya rasa berbaloi untuk membelanjakan wang bagi membantu mengubah tingkah laku anak saya
5	Adalah sangat penting masalah tingkah laku anak saya dapat dipulihkan
6	Saya perlu belajar untuk menjadi lebih konsisten
7	Saya berminat untuk mempelajari apa sahaja kemahiran yang diajar oleh ahli terapi
8	Saya mahu mengubah cara saya mendisiplinkan anak saya
9	Inilah masanya untuk mengubah cara saya dan anak bergaul
10	Jika tiada perubahan dilakukan, masa depan anak saya mungkin terjejas
11	Saya akan menyelesaikan masalah tingkah laku anak saya kemudian
12	Perkara berkaitan tingkah laku anak saya harus diubah dengan segera
13	Adalah sangat penting anak saya dan saya mendapat bantuan
14	Saya bersedia melakukan apa sahaja untuk memastikan saya dan anak saya dibantu
15	Saya mempunyai masalah yang lebih penting daripada tingkah laku anak saya sekarang
16	Saya bersedia mengubah gaya keibubapaan saya walaupun sukar
17	Saya bersedia untuk mempelajari cara mengubah tingkah laku anak saya

language lecturers) were not fully aware of the items on the questionnaire. This approach is in accordance with the work of Saremi et al. (2022), i.e., one of the translators should be aware of the purpose of the questionnaire's administration to give a translation that closely resembles the original instrument. The other translator, in contrast, should be unfamiliar with the questionnaire's intended application to provide a translation that may show subtle discrepancies in the original questionnaire (Beaton et al. 2000). Even though debatable, having the backward translation procedure is advantageous to ensure the translated version is semantically preserved as compared to the original questionnaire (Behr 2017). In the present study, no apparent differences were noted between the English-translated and the original English versions, indicating that the translation process of the questionnaire was carried out sufficiently. Some minor modifications were made, and the Malay-translated READI-SF was considered appropriate to be tested in the second phase of the study.

INVOLVEMENT OF THE CONTENT EXPERTS IN THE CONTENT VALIDITY TASKS

The content validity of an instrument refers to the degree to which the instrument covers an adequate sample of the contents it intends to cover, without omissions, misconceptions, or inconsistencies (Streiner et al. 2015). Despite the fact that an instrument's content validity is based on experts' subjective assessments, the respective content experts should be selected based on well-defined criteria such as qualifications, experience, clinical expertise, and availability to contribute and complete the validation form within the specific period (Fernández-Gómez et al. 2020). In the present study, all of the content experts (eight clinical professionals) were qualified, experienced and experts in the respective clinical fields. In fact, the benefit of having the content experts was evidenced as some items (9 out of 17 items) on the Malay-translated READI-SF needed to be revised (based on the results of the content validity tasks). This demonstrates the effectiveness and significance of employing a two-stage process in validating questionnaires, i.e., item development (or translation) and item validation (Lynn 1986; Boateng et al. 2018). However, this also implies that the translation stage was insufficient to provide valid content, even though clinical experts were involved in the translation process. This is in line with the recommendation by Lynn (1986), who suggested a two-stage process in validating questionnaires, i.e., item development (or translation) and item validation. Recall that eight clinical professionals consented to serve as the content experts in the present study, which is in agreement with other researchers (i.e., Lynn 1986; Boateng et al. 2018; Wynd et al. 2003) who suggested a minimum of three experts are needed while more than ten are not necessary.

QUANTITATIVE MEASURES OF THE CONTENT VALIDITY OF THE MALAY VERSION OF READI-SF

Since unfavourable results can be produced if the content of instruments is validated based on the literature review and unsystematic judgements of experts, quantitative measures are the preferred option (Wynd et al. 2003; Sternberg et al. 2011). Nevertheless, the common inter-rater agreement measures (e.g., weighted kappa, Fleiss's kappa, Kendall's coefficient of concordance, and so on) may not be appropriate in assessing the content validity of instruments (even though the risk of chance agreement is controlled) because they are only able to provide general information on the agreement between the experts for specific instruments. On the other hand, by employing the CVR and CVI methods, the agreement between the experts on the items of interest can be appropriately evaluated (Lawshe 1975; Wynd et al. 2003; Balachandran 2022).

In the present study, CVR, CVI (for item relevancy and clarity) and kappa (for item relevancy and clarity) analyses were carried out to assess the content validity of the Malay-translated READI-SF. The kappa statistic was included to provide "modified" I-CVI values with a controlled chance agreement (Wynd et al. 2003). Since eight content experts were involved, each item on the questionnaire should achieve a minimum CVR value of 0.75 in order to be retained (Lawshe 1975). As found, there were six items with CVR values of less than 0.75 (items 1, 4, 9, 11, 15, & 17), and revisions were required. In the CVI task, the I-CVI of the items and the S-CVI were evaluated in terms of relevancy and clarity. As revealed, in terms of item relevancy, only two items (items 9 and 15) revealed I-CVI values less than the recommended level (i.e., 0.78), for which revisions were needed (Polit et al. 2007). Likewise, as shown in the kappa analysis (for item relevancy), only item 15 should be revised. Regarding item clarity, six items (items 1, 3, 6, 9, 11 & 16) should be revised due to low I-CVI values. In the kappa analysis (for item clarity), four items (items 1, 3, 9 & 11) should undergo revisions.

Collectively, it appears that both the CVR and CVI (for item relevancy and clarity) tasks are "equally" beneficial in providing valuable information on the content validity of the questionnaire. That is, while some items were consistent with each other (e.g., 1, 9, 15 & 16), other items that were considered "essential" based on CVR values (e.g., items 3, 6 & 16) did not show good clarity (low I-CVI results) and vice versa. In view of this, conducting both content validity measures is highly recommended to achieve the desired study outcomes, and there were studies that employed either method in assessing the content validity of instruments (Chobe et al. 2020; Dib et al. 2020; Fortney & Campbell 2020; Zakaria et al. 2017).

It is worth mentioning that the addition of the modified kappa statistic did not add anything "advantageous" to the study outcomes. Generally, the kappa values were consistent with the I-CVI values (for both item relevancy and clarity) for the majority of the items and were less "powerful" relative to the CVR and CVI results (e.g., items 4, 6, 16 & 17). It should be pointed out that the CVI is an index of inter-rater agreement. As such, there is a probability of chance agreement, and the kappa statistical approach was used to address this issue (Wynd et al. 2003). In the present study, the effort to include the Kappa statistic was to produce more reliable I-CVI values (with controlled risk of chance agreement). That is, the presence of chance agreement would give lower I-CVI values. Nevertheless, it appears that the risk of having chance agreement was not evident since the kappa values were all consistent with the I-CVI values. The "absence" of chance agreement revealed in the present study is likely due to two factors, i.e., the use of 4-point Likert scale in computing CVI values and the involvement of a high number of content experts (Polit et al. 2007).

In the present study, each item should produce a kappa value of at least 0.75 (indicating "excellent" inter-rater agreement) in order to be retained. Since there has been no universal agreement on the optimum cut-off value of kappa in deciding whether the items should be retained or revised, choosing 0.75 as the criterion level was considered appropriate. In fact, if the kappa values between 0.60 and 0.74 were taken into account (and the items should therefore be retained due to "good" inter-rater agreement), the usefulness of this statistical method would be called into question even further (i.e., all of the items should be retained, except for item 9 with a kappa value of 0.50). Overall, the I-CVI values (for both item relevancy and clarity) and kappa results were similar (Table 2). Although there is a concern regarding the inflated chance agreement in the CVI task, Lynn (1986) argues that this likelihood is decreased by having more experts and employing a four-point Likert scale option. The present study's findings are indeed consistent with Lynn's argument.

Due to disagreements among CVR, CVI (relevancy and clarity) and kappa (relevancy and clarity) results, the collective approach was used to provide the overall decision for each item on the questionnaire. As mentioned before, for the items to be retained, all five measures must agree with each other. If at least one of the measures produced unfavourable results (i.e., fell below the accepted level), the respective items needed to be revised. According to DeVon et al. (2007), items that do not achieve minimum agreement by the content experts must be either eliminated from the instrument or revised. As revealed, 9 items (items 1, 3, 4, 6, 9, 11, 15, 16 & 17) were considered "problematic"

and underwent the required modifications based on the suggestions from the experts. On another note, several studies have proposed a two-stage validation approach, in which the CVR assessment is performed first, followed by the CVI task (Zamanzadeh et al. 2014; Zamanzadeh et al. 2015). However, this approach is not preferred (at least in the present study) as it is unclear which method can be considered the gold standard in assessing the content validity of the questionnaire (and which measure should come first).

Recall that the overall content validity of the questionnaire (S-CVI) was excellent for item relevancy (i.e., 0.91) (Polit et al. 2007). Regarding item clarity, the S-CVI value was 0.83, implying acceptable content validity (Zamanzadeh et al. 2015). Considering these S-CVI values, it appears that the content validity of the questionnaire is not a concern, and item revision is unnecessary. Nonetheless, the I-CVI results clearly indicated that several items needed to be revised (i.e., two for item relevancy and five for item clarity). This is because the S-CVI results are calculated by averaging all the I-CVI values of the scale. Essentially, when reporting CVI results, I-CVI, range of I-CVI, and S-CVI values should be provided (Polit et al. 2007). After the modifications of the respective items, it seems sensible for the overall content validity of the Malay version of READI-SF to be further enhanced.

STUDY LIMITATIONS AND FUTURE DIRECTIONS

The present study had several limitations. Firstly, the Malay-translated READI-SF underwent only a content validity assessment. To have information on the psychometric property of the questionnaire, it should be administered to the target respondents (i.e., parents). Moreover, subsequent validity measures such as construct validity (e.g., the application of confirmatory factor analysis), concurrent validity and face validity need to be employed. This can be the focus of future research. Secondly, the reliability of the Malay version of READI-SF was not assessed, and further research is warranted to provide this important information. The reliability of the questionnaire should be investigated to determine if the questionnaire could produce stable and consistent results (Tsang et al. 2017).

CONCLUSION

To produce the Malay version of READI-SF, forward and backward translations were conducted accordingly. Subsequently, the content validity of the Malay-translated READ-SF was assessed quantitatively through CVR, CVI and modified kappa analyses. Based on the results and suggestions from the experts, item revisions were made as applicable. The validated Malay version of READI-SF has good potential for measuring the readiness of Malay-speaking parents to engage themselves in the dedicated intervention. It possesses clinical utility as it is a brief, one-page measure that is simple and can be completed quickly by parents or caregivers. Nevertheless, prior to its wide application in clinical settings, future research is warranted to further assess the robustness of its psychometric properties.

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