

Artikel Asli/Original Article

Validation of the Malay Version of the Snyder Hope Scale Among Malaysian Cancer Patients

(Kesahan Skala Harapan Snyder Versi Bahasa Melayu dalam Kalangan Pesakit Kanser Malaysia)

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ABSTRACT

Hope leads to lower depression and anxiety and is associated with improved quality of life of cancer patients. In this study, Hope Scale (HS) was translated into Malay, and the psychometric properties of the Malay version of the Hope Scale were investigated among Malaysian cancer patients. Concurrent translation and back translation of the original English version of the Hope Scale were performed, and the Malay version was administered to 195 cancer patients with different cancer diagnoses at baseline assessment and 2 months later at follow-up. The Hope Scale (Malay) total score (Cronbach's $\alpha = 0.72$; intraclass correlation coefficient (ICC) = 0.67) and its domains (Cronbach's $\alpha_{[pathway]} = 0.7$; Cronbach's $\alpha_{[agency]} = 0.7$; $ICC_{[Pathway]} = 0.64$; $ICC_{[Agency]} = 0.70$) demonstrated acceptable internal consistencies and test-retest reliability. Convergent and discriminant validities were also achieved by the Hope Scale (Malay). The Hope Scale (Malay) demonstrated construct validity, as confirmatory factor analysis demonstrated that the items in the Hope Scale (Malay) best fit into two domains, which was true for the original English version. The Hope Scale (Malay) had acceptable psychometric properties and thus is suitable for assessing hope in Malaysian cancer patients.

Keywords: Validity; reliability; Hope Scale (Malay); Malaysian cancer patients; Hope Scale

ABSTRAK

Harapan menyumbang kepada penurunan tahap kemurungan dan keresahan dan ia juga berhubung kait dengan peningkatan kualiti kehidupan pesakit kanser. Kajian ini bertujuan untuk menerjemahkan Skala Harapan kepada Bahasa Melayu dan mengkaji ciri-ciri psikometrik Skala Harapan Versi Bahasa Melayu dalam kalangan pesakit kanser Malaysia. Penerjemahan Skala Harapan Versi Bahasa Inggeris yang asal kepada Bahasa Melayu dan penerjemahan kembali kepada Bahasa Inggeris dilakukan serentak dan kemudian Skala Harapan Versi Bahasa Melayu dijawab oleh 195 pesakit kanser yang telah didiagnos dengan pelbagai jenis penyakit kanser pada penilaian pertama dan prosedur ini diulangi 2 bulan kemudian pada penilaian ulangan. Skor keseluruhan Skala Harapan (Bahasa Melayu) (Cronbach's $\alpha = 0.72$; pekali korelasi intra-kelas = 0.67) dan domain-domainnya (Cronbach's $\alpha_{[laluan]} = 0.7$; Cronbach's $\alpha_{[agensi]} = 0.7$; pekali korelasi intra-kelas [laluan] = 0.64; pekali kolerasi intra-kelas [agensi] = 0.70) menunjukkan ketekalan dalaman mempamerkan konsistensi internal dan kebolehpercayaan uji-uji semula yang berpatutan. Kesahan konvergen dan diskriminan juga ditunjukkan oleh Skala Harapan (Bahasa Melayu). Skala Harapan (Bahasa Melayu) mempamerkan kesahan gagasan apabila analisis faktor pengesahan menunjukkan item-item dalam Skala Harapan (Bahasa Melayu) paling sesuai dimuatkan dalam dua domain seperti Skala Harapan Versi Bahasa Inggeris yang asal. Skala Harapan (Bahasa Melayu) mempunyai ciri-ciri psikometrik yang berpatutan dan sesuai untuk menilai tahap harapan dalam kalangan pesakit kanser Malaysia.

Kata kunci: Kesahan; kebolehpercayaan; Skala Harapan (Bahasa Melayu); pesakit kanser Malaysia; Skala Harapan

INTRODUCTION

The focus on positive psychology in cancer patients has become particularly important in recent years, as positive psychology may reduce the occurrence of psychological distress (e.g., depression and anxiety) that is common in cancer patients and may also improve the quality of life of cancer patients. One aspect of positive psychology which has been an important focus in psychology research in recent years is hope. Hope is defined as a goal-directed

positive state that consists of two components: agency and pathway. In other words, hope is a positive motivational state based on interactive sense of perceived motivation to initiate and sustain movements to achieve goals (agency), and perceived ability of the person to generate ways to achieve the goals (pathway). Both agency and pathway must be present in a person in order for the degree of hope to increase. Agency and pathway iterations must continue to be present throughout all stages of one's goal directed behaviour. As a result, a high-hope person will

tend to possess adequate degree of agency and pathway which will lead to perception of higher probability of goal attainment, having a more positive emotional state while conceptualising and performing goal related activities, having sense of challenge and focus on success rather than failure, and vice versa in a low-hope person (Snyder et al. 1991). Some people may regard hope and optimism to be the same thing, but they are not. Optimism is defined as the stable tendency to believe that good things rather than bad things will happen in life (Scheier et al. 1994). On the contrary, hope is goal-directed motivation and ability to perceived ways to attain goal while optimism is stable believe that good things rather than bad things will happen in one's life. Therefore, hope and optimism measure different aspects of a person's psychology.

Different hope scales have been used to measure the degree of hope in research subjects, and they include the Adult State Hope Scale (Snyder et al. 1996), Children Trait Hope Scale (Snyder et al. 1997), Adult Domain Specific Hope Scale (Lopez et al. 2000), and Adult Trait Hope Scale (Snyder et al. 1991). Nevertheless, it was concluded that the Adult Trait Hope Scale by Snyder et al. (1991) (which we called Hope Scale in this study) was the gold standard for measuring the degree of hope (Steed 2002). In the development of the Hope Scale, initially, 45 items were written based on the hypothesized content of the hope theory and then tested on 384 university students to assess item-remainder coefficients and then a pool of 14 items was created based on items with high item-remainder coefficients. Eventually, 4 items which most clearly defined pathway and another 4 items which clearly defined agency were selected. The final Hope Scale contained a total of 12 items with 4 items measuring agency, 4 items assessing pathway and another 4 items act as fillers. Each items are scored on a 4-point Likert scale with total score ranged from 12 to 48. There is no cut-off points to determine whether one has low, moderate or high hope but rather the range of score represent a continuum with score of 48 designating highest degree of hope and 12 indicating lowest degree of hope. Its internal consistencies (Cronbach's α) range from 0.74 to 0.84 and thus are acceptable. The test-retest reliability of this scale ranges from 0.73 to 0.85 with repeated assessments over an interval of 10 weeks. It also exhibit a best fit 2-factor model which confirmed the hypothesis that hope consists of 2 components i.e. agency and pathway (Snyder et al. 1991). It is reliable and valid for measuring the degree of hope across different groups of people (e.g., cancer patients, athletes, students) and for psychotherapy. Hope Scale, which originally was written in English, was translated and validated in other languages such as Arabic, Slovak, Dutch, Spanish and Iranian. All translated versions of Hope Scale have acceptable internal consistency and exhibit the 2-factor structure of the original scale (McDermott et al. 1997; Halama 2001; Carifio & Rhodes 2002; Abdel-Khalek & Snyder 2007; Yailagh et al. 2011).

Hope is positively correlated with self-esteem, positive affect, satisfaction with life, self-rating of mental health, self-rating of happiness, religiosity, optimism and self-rating of physical health and negatively correlated with anxiety, depressive mood, negative affectivity and hopelessness. Therefore, there is significant evidence that hope is associated with positive psychology but inversely related to negative psychology (Abdel-Khalek & Snyder 2007; Gana et al. 2013). Cancer diagnosis and the events happening along its course may lead to chronic trauma to the cancer survivors resulted in its association with significant occurrence and degree of negative psychology. Despite the importance of hope which may enhance well-being of cancer survivors as it is associated with positive psychology but inversely related to negative psychology, to date, no studies has been conducted in Malaysia to investigate hope and possible factors which may enhance PTG in cancer survivors. There was also no study conducted to translate and validate the Hope Scale in the Malay language. The goal of this study was to translate Hope Scale into Malay and investigate the psychometric properties of the Malay version among Malaysian cancer patients.

METHODS

STUDY DESIGN AND DATA COLLECTION

This 2-year study was approved by the Human Ethics Committee of Universiti Sains Malaysia (code USM/JEPeM/15060178). We recruited cancer patients who visited the oncology out-patient clinic and in-patient ward of the Advanced Medical and Dental Institute, Universiti Sains Malaysia from 2015 to 2016. Advanced Medical and Dental Institute (AMDI) is a research and clinical centre which focus on oncology research and offer cancer treatment to the population of Northern states of Peninsular Malaysia (Perlis, Kedah, Pulau Pinang and northern Perak). It served as a tertiary referral centre for cancer treatment in these states. Purposive sampling was applied for participant recruitment. Patients were approached and briefed about the study and its purpose, and assurance made that anonymity will be maintained. Those who volunteered for the study, met all inclusion criteria were invited to sign the informed consent form, and enrol in the study. The sample size needed was according to the Rule of 5 (Bryant & Yarnold 1995), which states that, "one's sample should be at least five times the number of variables. The subjects-to-variables ratio should be 5 or greater." This study was actually conducted to assess validation of 4 questionnaires in which Hope Scale (Malay) was one of the questionnaire. The total items in all 4 questionnaires was 38 items. Hence, the total sample size needed in this study was 190 patients. The inclusion criteria were: patients with any cancer diagnosis confirmed by histopathological report (except for brain tumour); 18 years old or older; no cognitive impairment (patients were screened using the Malay version of the Mini Mental State Examination,

and their score had to be $\geq 24/30$); able to read and write in the Malay language; and physically able to answer the questionnaire. The Malay versions of the Hope Scale and the Life Orientation Test-Revised (LOT-R) [the latter was used as a comparison to assess the discriminant validity of the Hope Scale (Malay)] were administered to participants during baseline assessment. The Hope Scale (Malay) was then re-administered 2 months after baseline assessment during follow-up.

MEASURES

Hope Scale is a self-rated 12-item scale that assesses the respondent's level of hope. It consists of two domains: agency (assesses one's goal-directed energy to pursue one's goals) and pathway (assesses one's extent of creating ways to achieve one's goal). Items 2, 9, 10, and 12 assess agency, items 1, 4, 6, and 8 assess pathway, and the remaining four items act as fillers (items 3, 5, 7, and 11). A 4-point Likert scale is used to score each item ranging from 1 (strongly disagree) to 4 (strongly agree). Thus, total Hope Scale score ranges from 12 to 48 [Snyder et al. 1991].

The Life Orientation Test-Revised (LOT-R) is a self-rated 6-item scale that was adapted from the original 8-item (LOT). It measures the respondent's level of optimism (defined as the stable tendency to have faith that more good than bad will happen). It consists of two domains: optimism (items 1, 3, and 6) and pessimism (items 2, 4, and 5). Each item is scored on a 5-point Likert scale ranging from 0 (strongly disagree) to 4 (strongly agree). The total score ranges from 0 to 24 [Scheier et al. 1994]. In this study, the LOT-R (Malay) was used as a comparison to assess the discriminant validity of the Hope Scale (Malay). Despite the relationship between optimism and hope is mild to moderate, previous studies have indicated that these two are indeed very different personality constructs (Gana et al. 2013). Hence, the LOT-R (Malay) can be used as a comparison to evaluate discriminant validity of the Hope Scale (Malay).

TRANSLATION AND BACK TRANSLATION OF THE HOPE SCALE

Permission to use the original English version of the Hope Scale was requested from Snyder et al. The original English version of the Hope Scale was translated into Malay by one native Malay speaking bilingual language expert from the Language and Literacy Centre of Universiti Sains Malaysia. It then was back translated into English by a native English speaking bilingual language expert who had never seen the original version. The translated and back translated versions were reviewed by a group of content experts (two psychiatrists and a clinical psychologist) before the Malay version of the Hope Scale was drafted.

In a pilot study, the Hope Scale (Malay) was administered to 20 Malaysian cancer patients who were Malay native speakers to evaluate the wording and sentence structure, semantic quality, comprehension, and suitability

of administration time in order to ensure face validity. If any parts were unacceptable, the draft would be re-examined by the team of experts before the final draft was constructed. The participants in this pilot study will not be included in the final sample of the study.

DATA ANALYSIS

Data analysis was performed using IBM SPSS version 22. Reliability was assessed based on internal consistency measured by Cronbach's α , and test-retest reliability was measured using the intraclass correlation coefficient (ICC). Convergent validity was assessed by examining the Pearson's correlation coefficient of individual items with the domains of the Hope Scale (Malay). Discriminant validity was assessed by evaluating the Pearson's correlation coefficient of the domains of the Hope Scale (Malay) with the domains of the LOT-R. Construct validity was measured using exploratory factor analysis with orthogonal Varimax rotation with Kaiser normalization; factor loading > 0.4 was viewed as acceptable. Confirmatory factor analysis was performed using IBM Analysis of Moment Structure (AMOS) version 22 to determine the best fitting model of the Hope Scale (Malay). The following parameters were examined: chi square, goodness-of-fit-index (GFI) for which 0.9 to 0.95 was considered acceptable, normed fit index (NFI) for which > 0.90 was acceptable, comparative fit index (CFI) for which > 0.95 was considered acceptable, Tucker-Lewis index (TLI) for which > 0.95 was considered acceptable, and root mean square error of approximation (RMSEA) for which ≤ 0.06 - 0.10 was considered a moderate fit and < 0.06 was considered a good fit.

RESULTS

Initially, 208 participants were recruited for baseline assessment but only 195 patients completed the follow up assessment with a response rate of 93.8%. Two third of participants were middle aged (66% of participants were 46-59 years old), 27% were 25-45 years old, and only 7% were older than 65 years. Three-fourths of respondents were female (72.8%), and most participants were Malays (82.1%). The sociodemographic and clinical characteristics of the participants were summarised in Table 1.

The pilot study to assess face validity revealed that 76% of participants found the wording, sentence structure, and semantic quality of the Hope Scale (Malay) to be "appropriate," and 24% deemed it "highly appropriate." Regarding the comprehension and meaning of the items in the questionnaire, 70% of participants stated that they were "appropriate" and 30% deemed them "highly appropriate." Finally, 70% and 30% of participants found the time of administration of the questionnaire (they took 5 minutes to complete it) to be "appropriate" and "highly appropriate," respectively. Hence, there was no need to amend the questionnaire after completion of the pilot study.

In the assessment of internal consistency, the Cronbach's α of the total Hope Scale (Malay) score was 0.72, and the values for the agency and pathway domains were both 0.7 (Table 2). The test-retest reliability results

revealed an ICC value of 0.67 ($p < 0.05$) for the total Hope Scale (Malay) score and ICC values of 0.64 ($p < 0.05$) for pathway and 0.7 ($p < 0.05$) for agency domains (Table 2).

TABLE 1. Descriptive statistics of sociodemographic and clinical characteristics of participants

	Number of participants	Percentage
Gender:		
Female	142	73
Male	53	27
Age	53 years#	$\pm 10.25^*$
Ethnicity:		
Malays	162	83
Chinese	19	10
Indians	14	7
Patient status:		
Inpatient	65	33
Outpatient	130	67
Cancer type:		
Breast	101	52
Colon	32	16
NPC	17	9
Others	44	23
Stage:		
1	33	17
2	66	34
3	57	29
4	39	20
Treatment:		
No treatment	13	7
Surgery	40	21
Chemotherapy	10	5
Radiotherapy	2	1
Chemotherapy and radiotherapy	9	5
Surgery and chemotherapy	71	36
Surgery and radiotherapy	7	3
Surgery, chemotherapy and radiotherapy	43	22
Time since diagnosis	6.5 months#	

= mean; * = standard deviation

TABLE 2. Reliability of Hope Scale (Malay)

	Baseline Mean (SD)	Follow-up Mean (SD)	Internal consistency (Cronbach's α)	Test-retest reliability (ICC)
Hope Scale (Malay):				
Pathway	13.17 (± 1.62)	13.21 (± 1.71)	0.70	0.64*
Agency	13.21 (± 1.67)	13.33 (± 1.66)	0.70	0.70*
Total	26.38 (± 3.49)	26.54 (± 3.79)	0.72	0.67*

* statistical significance at $p < 0.05$

Pearson's correlation coefficients demonstrated that all items of the Hope Scale (Malay) were highly correlated with their designated domain (Pearson's correlation coefficient (r) ranged from 0.6 to 0.73), and correlations to non-designated domains were lower (Pearson's

correlation coefficient (r) ranged from 0.1 to 0.4) (Table 3). Comparison of the Pearson's correlation coefficients between the domains of the Hope Scale (Malay) and the domains of the LOT-R (Malay) showed that the pathway and agency domains of the Hope Scale (Malay) were weakly

correlated with optimism in the LOT-R (Malay) (Pearson's correlation coefficient (r) = 0.28, $p < 0.05$ and (r) = 0.29, $p < 0.05$ respectively). However, both domains of Hope

Scale (Malay) were not correlated with pessimism in the LOT-R (Malay) (Table 4).

TABLE 3. Pearson's correlation coefficient within Hope Scale (Malay) (item vs. domain)

Hope Scale (Malay):	Pathway	Agency
Item 1 (I can think of many ways to get out of a traffic jam) [<i>Saya boleh memikirkan banyak cara untuk keluar daripada kesesakan lalu lintas</i>]	0.68*	0.18*
Item 4 (There are lots of ways around any problem) [<i>Terdapat banyak jalan penyelesaian bagi setiap masalah</i>]	0.70*	0.34*
Item 6 (I can think of many ways to get the things in life that are important to me) [<i>Saya boleh memikirkan banyak cara untuk mendapat sesuatu yang penting dalam hidup saya</i>]	0.72*	0.34*
Item 8 (Even when others get discouraged, I know I can find a way to solve the problems) [<i>Walaupun orang lain berputus asa, saya boleh memikirkan jalan penyelesaian untuk menyelesaikan sesuatu masalah</i>]	0.68*	0.40*
Item 2 (I energetically pursue my goals) [<i>Saya amat bersemangat dalam mengejar Matlamat saya</i>]	0.40*	0.60*
Item 9 (My past experiences have prepared me well for my future) [<i>Pengalaman saya yang lepas menjadikan saya lebih bersedia untuk menghadapi masa depan saya</i>]	0.40*	0.69*
Item 10 (I've been pretty successful in life) [<i>Kehidupan saya amat berjaya setakat ini</i>]	0.38*	0.73*
Item 12 (I meet the goals that I set for myself) [<i>Saya telah mencapai matlamat hidup yang saya sasarkan untuk diri saya</i>]	0.22*	0.76*

*statistical significance at $p < 0.05$

TABLE 4. Pearson's correlation coefficient between domains of the Hope Scale (Malay) and the domains of the LOT-R (Malay)

	Pathway [Hope Scale (Malay)]	Agency [Hope Scale (Malay)]
Optimism [LOT-R (Malay)]	0.28*	0.29*
Pessimism [LOT-R (Malay)]	-0.03	-0.13

*statistical significance at $p < 0.05$

Exploratory factor analysis with orthogonal Varimax rotation with Kaiser normalization demonstrated that all items designated as part of the pathway domain of the Hope Scale (Malay) had loading factors ranging from 0.62 to 0.73, and all items designated as part of the agency domain had loading factors ranging from 0.53 to 0.85. Hence, 2 factors were extracted which accounted for 54.87% of total variance (Table 5). The Kaiser-Meyer-Olkin measure of sample adequacy was 0.74 and Bartlett's test of sphericity was significant ($p < 0.001$), which indicate that the scale was valid.

TABLE 5. Exploratory factor analysis with orthogonal Varimax rotation with Kaiser normalization for the Hope Scale (Malay)

	Hope Scale (Malay)	Pathway	Agency
Item 1		0.73	
Item 4		0.67	
Item 6		0.65	
Item 8		0.62	
Item 2			0.85
Item 9			0.76
Item 10			0.62
Item 12			0.53
Eigenvalue	3.16		1.23
Variance/%	39.497		15.375
Total variance/%			54.872

Confirmatory factor analysis revealed that the Hope Scale (Malay) did not fit into a 1-factor model ($\chi^2 = 62.53$, $p < 0.001$, GFI = 0.919, NFI = 0.827, TLI = 0.821, CFI =

0.872, RMSEA = 0.105) or a 3-factor model ($\chi^2 = 116.87, p < 0.001, GFI = 0.91, NFI = 0.781, TLI = 0.779, CFI = 0.855, RMSEA = 0.082$). Instead, it best fit into a 2-factor model

($\chi^2 = 51.93, p < 0.001, GFI = 0.939, NFI = 0.93, TLI = 0.951, CFI = 0.954, RMSEA = 0.095$) (Figure 1).

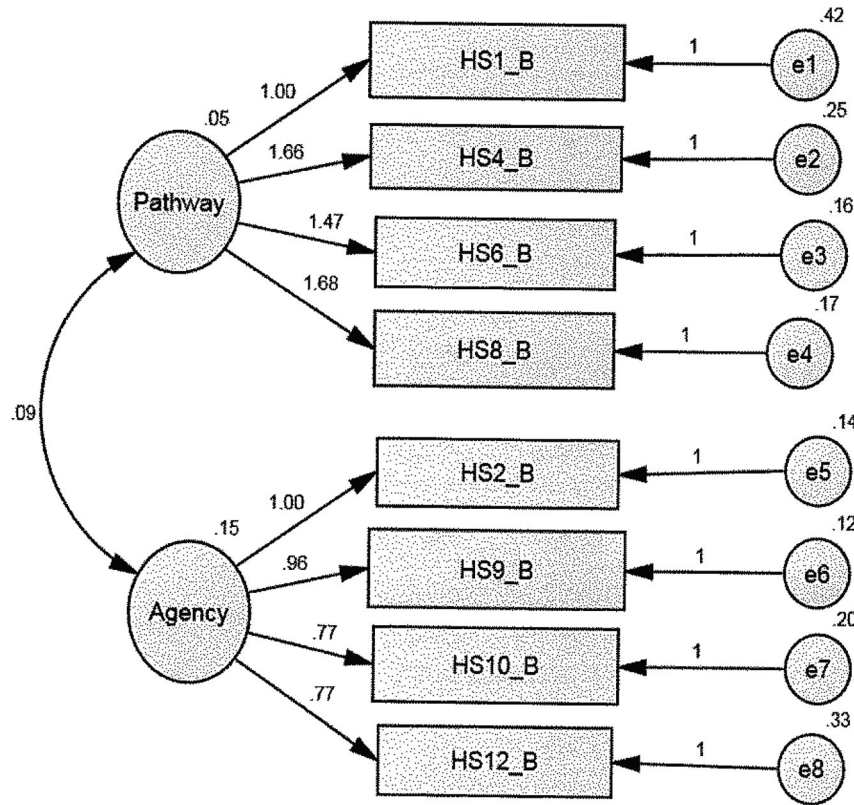


FIGURE 1. The best fitting 2-factor model for the Hope Scale (Malay): HS1_B = Item 1, HS4_B = Item 4, HS6_B = Item 6, HS8_B = Item 8, HS2_B = Item 2, HS9_B = Item 9, HS10_B = Item 10, HS12_B = Item 12.

DISCUSSION

This study successfully translated the original English version of the Hope Scale into the Malay language and investigated the reliability and validity of the Hope Scale (Malay). The internal consistencies and test-retest reliability of the total Hope Scale (Malay) score and its domains were acceptable (Mohamad et al. 2011; Cicchetti, 1994). The internal consistency and test-retest reliability of the Hope Scale (Malay) was comparable to that of the original English version (Snyder et al. 1991) as well as the Iranian version of the Hope Scale (Yailagh et al. 2011). But the test-retest reliability of the Arabic version of the Hope Scale is relatively higher which may be explained by the short time intervals between the baseline and follow up assessment which is only 7 days in the Arabic version (Abdel-Khalek & Snyder 2007). Hence, the reliability of the Hope Scale (Malay) was achieved.

The method used in this study for translation and back translation, and expert panel discussion to ensure content validity of the as well as the pilot study employed to assess the face validity of the Hope Scale (Malay) were similar to the method employed by other validation studies of translated version of the Hope Scale (Abdel-Khalek &

Snyder, 2007; Sun et al. 2011; Gana et al. 2013). Face and content validities of the Hope Scale (Malay) were achieved as all the respondents in the pilot study agreed with the semantic quality and comprehensiveness and no further amendments of the Hope Scale (Malay) needed.

Convergent validity of a particular measuring scale can be evaluated by comparing Pearson's correlation coefficients of the items with their designated domain and non-designated domains. High correlations of the items to their designated domain and low correlation to non-designated domains indicate convergent validity (Lua & Wong 2012). Convergent validity of the Hope Scale (Malay) was demonstrated by higher correlations between all items with their designated domains compared to low correlations with non-designated domains. Conversely, discriminant validity of a particular measuring scale can be assessed by comparing Pearson's correlation coefficients of items or domains of that particular scale with items or domains of another scale that measures a different construct. Low correlations between items or domains indicate discriminant validity (Lua & Wong 2012). Both domains of the Hope Scale (Malay) showed only weak positive correlations with the optimism domain of the LOT-R (Malay), and there were no significant correlations

between both domains of the Hope Scale (Malay) and the pessimism domain of the LOT-R (Malay). This indicates that the Hope Scale is correlated with positive affect and positive psychology which had been demonstrated in other studies (Wong & Lim 2009; Gana et al. 2013). This result illustrates the discriminant validity of the Hope Scale (Malay).

Factor extraction from exploratory factor analysis and model of best fit from confirmatory factor analysis of the Hope Scale (Malay) confirmed the bi-factorial structure of the Hope Scale indicating the Hope Scale is indeed consisted of two separate but related factors i.e. agency and pathway. This findings were also confirmed by the original English version of the Hope Scale (Synder et al. 1991) and Arabic, Iranian, and Japanese versions of the Hope Scale (Kato & Snyder 2005; Abdel-Khalek & Snyder 2007; Yailagh et al. 2011).

The study had a few limitations. The sample size of this study was relatively smaller compared to that of the original English version and that of a few translated versions of the Hope Scale (Snyder et al. 1991; Abdel-Khalek & Snyder 2007). Nevertheless, sample size calculation revealed that the sample size still fulfilled the minimal sample size required to provide adequate power. In addition, the intervals between baseline and follow up assessments was too lengthy which may affect the accuracy of the test-retest reliability assessment of the Hope Scale (Malay) as the targeted participants were all cancer patients. Hence, we recommended shorter intervals for evaluation of test-retest reliability which involve cancer patients in future study. Finally, this study also did not assess the psychological state and the level of distress of the participants as these can act as confounding factors which may influence the findings of the study (Rajandram et al. 2011). Therefore, we recommend future validation studies of the Hope Scale (Malay) should assess the psychological state and level of distress, and patients with significant psychological distress should be excluded from the study.

Despite the limitations mentioned above, hope has been shown to be inversely correlated with depression and anxiety in oral cancer patients (Rajandram et al. 2011), thus increasing the degree of hope is associated with decreasing the level of anxiety and depression in cancer patients. Hope is also associated with and predicts better quality of life in cancer patients (Gustavsson-Lilius et al. 2007; Li et al. 2016). In addition, hope is also positively correlated with posttraumatic growth in cancer patients, in which the latter is a positive psychological growth which may improve well-being of cancer patients (Ho et al. 2011; Zwallen et al. 2016). As a result, it is important to validate the translated Hope Scale (Malay) for use to assess level of hope in Malaysian cancer patients to facilitate future studies investigating efficacy of psychosocial intervention which enhance hope in cancer patients.

CONCLUSION

In conclusion, this study demonstrated acceptable reliability and validity of the Hope Scale (Malay) comparable to the original English and a few translated versions of the Hope Scale. It also confirmed that hope comprised of two factors which are agency and pathway. The Hope Scale (Malay) can be used to assess the degree of hope in Malaysian cancer patients. We hope that this study will form an initial platform for future studies to validate the Hope Scale (Malay) in other Malaysian population.

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