Psychometric properties of the ‘Skala Kepuasan Interaksi Perubatan-11’ to measure patient satisfaction with physician-patient interaction in Malaysia

Aniza Abd Aziz*, Nur Izyan Farhana Nordin*, Norhayati Mohd Noorb, Norsa’adah Bachoka and Siti Nor Ismalina Isa*

aUnit of Biostatistics and Research Methodology and bDepartment of Family Medicine, School of Medical Sciences, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia.

*Correspondence to Aniza Abd Aziz. Unit of Biostatistics and Research Methodology, School of Medical Sciences, Universiti Sains Malaysia, Health Campus, Kubang Kerian, Kelantan 16150, Malaysia; E-mail: anizaziz@gmail.com

Received February 5 2013; revised September 24 2013; Accepted October 7 2013.

Abstract

Background. Patient satisfaction influences the outcomes of the patient-physician encounter.

Objective. The objective of this study was to validate the Malay version patient satisfaction (MISS-21) questionnaire using a confirmatory validity approach.

Methods. A cross-sectional study was conducted involving 252 patients attending primary health clinic, Hospital Universiti Sains Malaysia. Construct validity (convergent and discriminant) using confirmatory factor analysis and internal consistency were performed after the translation, content validity and face validity processes. Criterion validity was assessed using Pearson correlations with the scale of shared decision making 9-item questionnaire (SDMQ-9). The data was analysed using Analysis of Moment Structure version 19.

Results. A total of 252 (100%) outpatients responded to this study. The final model that consists of three domains with 11 items had a good fit; ($\chi^2$ (df) = 65.805 (32), $P < 0.001$, Tucker–Lewis indices = 0.902, comparative fit index = 0.927, root mean square error of approximation = 0.061, standardized root mean square residual = 0.058). Composite reliability and average variance extracted of the domains ranged from 0.541 to 0.760 and 0.240 to 0.522, respectively. The SDMQ-9 had a moderate correlation with the total score of the final construct ($r = 0.406$, $P < 0.001$).

Conclusion. The study suggested that the three-factor model with 11 items of the Malay version MISS-21 could be used to assess patient satisfaction on patient-physician interaction in primary health care setting because it is acceptably valid, reliable and simple. The validated Malay version questionnaire was called as ‘Skala Kepuasan Interaksi Perubatan-11’.

Key words: Confirmatory factor analysis, patient-physician interaction, patient satisfaction, psychometrics, reliability, validity.

Introduction

Patient satisfaction is defined as patient’s feeling about their doctor (1). A medical consultation forms part of a continuing process of coping with illness for a patient. According to Pascoe (1983), patient satisfaction is defined as the nature of an individual’s experience compared with his or her expectations. Patient satisfaction surveys are valuable tools that can be used by health care providers to identify areas that need improvement and can help in assessing the quality of care and service from patients’ perspectives.
Psychometric properties of the ‘Skala Kepuasan Interaksi Perubatan-1 1’ to measure patient satisfaction with physician-patient interaction in Malaysia

(2). Besides, it can be used to guide or revise organizational operations, strategies, decisions and policies. Satisfied patients are more likely to comply with treatment, take an active role in their own care, continue using medical care services and stay within a health provider (3). Therefore, patient satisfaction is an important value in measuring the quality of general practice care (4).

Patient-physician interaction is a key element in the efficiency and usage of health services and varies depending on patient characteristics (5). The way in which physicians and patients interact is important because it affects patient satisfaction (6,7,8), patient understanding, adherence to directions (6), litigation for malpractice (9) and health status (8,10). Over the past half century, changes in medical technology, law, education, ethics and research have influenced the current shape of physician-patient interactions (11). The nature and quality of the relationship between patients and their physicians affect communication, medical advice, satisfaction and diagnosis (7).

A high satisfaction with patient-physician interaction is associated with increased adherence, better continuity of care, client participation in important treatment decisions and positive adjustment (12). The MISS-21 questionnaire was designed to test satisfaction of communication between patients and their doctors, specifically in UK population. The questionnaire contains 21 questions regarding satisfaction with the consultation and was broken down into subsets of questions relating to distress relief (DR), communication comfort (CC), Rapport (R) and compliance intent (CI) (13). The MISS-21 questionnaire has many advantages over the other questionnaires. It is a simple self-administered structured questionnaire and has minimum of four items for a subscale. Therefore, the present study was carried out to validate the Malay version MISS-21 questionnaire on patient-physician interaction that later will allow assessment of patient satisfaction level in our population for a better preventive approach in primary health care.

Methods

Study participants and procedure

This was a cross-sectional study involving primary health care patients. The patients attending primary health clinic, Hospital Universiti Sains Malaysia (HUSM) during the study period were selected using a systematic random sampling at fifth interval to achieve the 252 samples. The inclusion criteria for the study were patients aged 18 years and older and the ability to read and write in Malay language. Those who were under the follow-up of family medicine specialist were excluded from the study. Sample size for confirmatory factor analysis (CFA) was determined using structural-equation-modelling approach. A sample of 210 was acceptable at subject-to-variable (N: q) ratio of 1:10 according to Kline (2010), considering that 21 variables were included in the analysis. Thus, the highest sample size of 252 was chosen after considering 20% of non-response rate.

MISS-21 questionnaire was translated into Malay version. The process of translation has been carefully planned with the importance of ensuring the preservation of the meanings. Two forward translations into Malay language followed by two backward translations into English language were performed by two linguistics and two medical doctors independently. Later, the final Malay consensus was evaluated and revised by a panel that consisted of a physician, a psychiatrist, a social science lecturer and two layperson. The aim of the panel discussion was to evaluate the clarity, comprehension, scientific applicability and the equivalence between the original and the translated version. Then, face validity was assessed based on comments by five service providers (doctors) and five patients. Later, the questionnaires (Appendix 1) were distributed after patients’ consultation with the doctor and signing the informed consent forms. The process of filling the self-administered questionnaires took about 15 minutes.

Statistical analysis

The items or domains of the Malay version MISS-21 were first examined by assessment of their item-level characteristics such as the extent of missing data, frequency distribution, mean and standard deviation. All types of analyses had been done using software PASW statistics version 18. CFA for validity assessment was conducted using software Analysis of Moment Structure version 19.

The adequacy of the proposed CFA model was evaluated using goodness-of-fit assessment. The source of misfit was detected when the goodness-of-fit was inadequate. The overall model adequacy was determined by overall chi-square ($\chi^2$) value. However, this information was sensitive to sample size. Therefore, other specific measures were calculated to determine goodness of fit, which are Tucker–Lewis indices (TLI), comparative fit index (CFI), root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR). In addition to the overall evaluation of goodness of fit, the standardized factor loadings were examined in order to identify the misspecification for model modification. Factor loading of more than 0.3 was acceptable (14).

Convergent validity of the final model Malay version MISS-21 questionnaire was presented in the form of average variance extracted (AVE). It was manually calculated by using the formula given by Fornell and Larcker (1981). The acceptable value for AVE was more than 0.5 (15). Discriminant validity of Malay version MISS-21 questionnaire was assessed by examining the correlation among the latent factor. It was presented in the form of shared variance (SV) and AVE. SV was calculated by correlation square. The value of AVE should be more than the
value of SV (AVE > SV) to suggest the presence of discriminant. The value of composite reliability (CR) and Cronbach’s alpha were used for internal consistency evaluation. The acceptable value for CR was greater than 0.6. Based on the final model, CR was calculated manually by computing formulas given by Fornell and Larcker (1981). Criterion reliability was assessed using Pearson correlation analysis between the total score of patient’s satisfaction with the total score of shared decision making 9-item questionnaire (SDMQ-9 items).

Results

Socio-demographic characteristics

A total of 252 respondents participated in this study. Among the 252 respondents, 170 (67.5%) were females. The mean (SD) age was 38.92 (9.94), ranging from 19 to 67 years. Majority of the respondents were Malays (98.8%) and only 2 (0.8%) were Chinese and 1 (0.4%) was Indian. All of the respondents were Malaysians. Majority, 227 (90.1%) were married and only 25 (9.9%) were single. Besides, 186 (73.8%) were employed while 66 (26.2%) were unemployed. Hundred and fifty-seven (62.2%) of the respondents completed their tertiary education and 90 (35.7%) have secondary education. The mean (SD) for the individual monthly income in Ringgit Malaysia (RM) was 1886.51 (1538.82) while for overall household monthly income (RM) was 3600.99 (2202.76). Out of 252 respondents, 149 (59.1%) came for first visit and 103 (40.9%) for follow-up. The respondents’ characteristics are presented in Table 1.

Reliability and CFA

All histograms and Q-Q plot of 21 items were normally distributed. The box-and-whisker plots revealed 12 items had a number of extreme outliers, ranging from seven extreme outliers to as much as 11 extreme outliers. These outliers were then checked for multivariate outlier assessment using Mahalanobis distances. The multivariate outlier was inspected for peculiar pattern of the subject’s regard. Only one multivariate outlier was noted in the study subjects (ID: 135). Therefore, the subject was deleted from the data. Thus, only 251 subjects were retained and used for CFA analysis.

The original four-factor model with 21 items as shown in Table 2 revealed a poor fit with the latent constructs ($\chi^2$ (df) = 613.281 (183), $P < 0.001$, SRMR = 0.104, TLI = 0.512, CFI = 0.575, RMSEA = 0.097). Nine items were removed (factor loading 0.082 to 0.299) from the first model, leaving 12 items in Model 2. The correlation was acceptable (less than 0.85) for all domain pairs except CI and CC in Model 1 and Model 2 ($r = 1.05$). Thus, the two domains (CI-CC) were combined due to the high correlation and renamed as ‘Interaction Outcome’ (IO) in Model 3. Content assessment on the four items in the combined IO domain revealed similar meaning and content except item CC19. Thus, item CC19 was removed. Table 3 showed the fit of the full and tested models that were assessed by a number of fit indices. Final model or Model 4 with three factors and 11 items was accepted because it demonstrated acceptable factor loadings, domain-to-domain correlation and best fit (Fig. 1) (Appendix 2).

Table 4 shows the results of convergent validity, discriminant validity and reliability of the final model. R and IO domain had moderate convergent validity but DR showed less convergent. DR and R were lacking in discriminating each other. CR and Cronbach’s alpha of all domains demonstrated similar results where R and IO had good reliability except DR, which demonstrated fair reliability with CR = 0.541 and CA = 0.513. Malay version MISS-21 final model had a positive moderate Pearson’s correlation (0.406; $P < 0.001$) with SDMQ-9.

Discussion

The present study was conducted in a primary health care clinic setting to validate the Malay version MISS-21 questionnaire that
Psychometric properties of the 'Skala Kepuasan Interaksi Perubatan-11' to measure patient satisfaction with physician-patient interaction in Malaysia

includes the CFA and reliability of patient satisfaction. The content validity of this Malay version questionnaire includes the translation and subsequent review by researchers and identified experts. Revision and improvement was made after forward and backward translation to ensure the instrument was not ambiguous and locally adaptable. All the experts independently commented on each item for clarity, relevance and representativeness of items.

Face validity ensures the appropriateness of Malay version MISS-21 for the intended purpose. Pre-test was performed before the administrations of the Malay version MISS-21 questionnaire among 10 respondents to assess face validity. The respondents were required to comment on the overall clarity, relatedness, presentation and arrangement of the Malay version MISS-21 questionnaire. Improvement of the questionnaire was done based on the qualitative or subjective comments by the respondents.

Meakin and Weinman (2002) performed exploratory factor analysis (EFA) using principal component analysis with a Varimax rotation and produced the 21-item patients satisfaction (MISS-21) questionnaire. A total of eight items from the previous version (MISS-29) (16) were removed since the factor loading did not load highly onto any factors. Both original studies (MISS-29 and MISS-21) used EFA in their validation assessment. EFA provides the researcher with information about how many factors are needed to best represent the data. Thus, EFA can be conducted without knowing which variables belong to which constructs (17).

CFA of the Malay version MISS-21 questionnaire on patient’s satisfaction was conducted because of its ability to assess the construct validity of a proposed measurement theory (18). It was hypothesized that the theoretically derived Malay version MISS-21 questionnaire dimensions of DR, R,

Table 2. The original four-factor model of MISS-21 questionnaire (21 items)*

<table>
<thead>
<tr>
<th>No.</th>
<th>Items</th>
<th>Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The doctor told me just what my trouble is</td>
<td>DR1</td>
</tr>
<tr>
<td>2</td>
<td>After talking with the doctor, I know just how serious my illness is</td>
<td>DR2</td>
</tr>
<tr>
<td>3</td>
<td>The doctor told me all I wanted to know about my illness</td>
<td>DR3</td>
</tr>
<tr>
<td>4</td>
<td>After talking with the doctor, I have a good idea of how long it will be before I am well again</td>
<td>DR4</td>
</tr>
<tr>
<td>5</td>
<td>The doctor has relieved my worries about my illness</td>
<td>DR5</td>
</tr>
<tr>
<td>6</td>
<td>The doctor seemed to know just what to do for my problem</td>
<td>DR6</td>
</tr>
<tr>
<td>7</td>
<td>The doctor seemed interest in me as a person</td>
<td>R7</td>
</tr>
<tr>
<td>8</td>
<td>The doctor seemed warm and friendly to me</td>
<td>R8</td>
</tr>
<tr>
<td>9</td>
<td>The doctor seemed to take my problems seriously</td>
<td>R9</td>
</tr>
<tr>
<td>10</td>
<td>I felt free to talk to this doctor about private matters</td>
<td>R10</td>
</tr>
<tr>
<td>11</td>
<td>The doctor gave me a chance to say what was really on my mind</td>
<td>R11</td>
</tr>
<tr>
<td>12</td>
<td>I really felt understood by my doctor</td>
<td>R12</td>
</tr>
<tr>
<td>13</td>
<td>This is a doctor I would trust with my life</td>
<td>R13</td>
</tr>
<tr>
<td>14</td>
<td>The doctor seemed to know what s(he) was doing</td>
<td>R14</td>
</tr>
<tr>
<td>15</td>
<td>I expect that it will be easy for me to follow the doctor’s advice</td>
<td>CI15</td>
</tr>
<tr>
<td>16</td>
<td>It may be difficult for me to do exactly what the doctor told me to do</td>
<td>CI16</td>
</tr>
<tr>
<td>17</td>
<td>I’m not sure the doctor’s treatment will be worth the trouble it will take</td>
<td>CI17</td>
</tr>
<tr>
<td>18</td>
<td>I am not really certain about to follow the doctor’s advice</td>
<td>CI18</td>
</tr>
<tr>
<td>19</td>
<td>I felt embarrassed while talking with the doctor</td>
<td>CI19</td>
</tr>
<tr>
<td>20</td>
<td>The doctor did not allow me to say everything I had wanted about my problems</td>
<td>CC20</td>
</tr>
<tr>
<td>21</td>
<td>The doctor did not really understand my main reason for coming</td>
<td>CC21</td>
</tr>
</tbody>
</table>

Table 3. Chi-square goodness-of-fit, TLI, CFI, RMSEA and SRMR (n = 251)

<table>
<thead>
<tr>
<th>Models</th>
<th>Chi-square (df), P-value</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA (90% CI)</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td>613.281 (183), &lt;0.001</td>
<td>0.512</td>
<td>0.575</td>
<td>0.097 (0.089, 0.106)</td>
<td>0.104</td>
</tr>
<tr>
<td>Model 2</td>
<td>94.048 (48), &lt;0.001</td>
<td>0.887</td>
<td>0.918</td>
<td>0.062 (0.043, 0.080)</td>
<td>0.061</td>
</tr>
<tr>
<td>Model 3</td>
<td>95.013 (51), &lt;0.001</td>
<td>0.898</td>
<td>0.921</td>
<td>0.059 (0.040, 0.077)</td>
<td>0.060</td>
</tr>
<tr>
<td>Model 4</td>
<td>65.805 (32), &lt;0.001</td>
<td>0.902</td>
<td>0.927</td>
<td>0.061 (0.040, 0.080)</td>
<td>0.058</td>
</tr>
</tbody>
</table>


*The bold sentences are the selected items in the final model (11 items).
CI and CC would satisfactorily explain the covariance among the items from the Malay version MISS-21 responses of the patients’ satisfaction on patient-physician interaction. None of the original MISS-29, MISS-26 and MISS-21 use CFA in their construct analysis.

The repeated process of model modification in the present study was performed based on the items’ factor loadings, correlation between domains and the model fitting. Additionally, high emphasis on the content relatedness was applied at each step of modification. In other words, assessment on the degree of redundancy and relevance of the items to the factor were used together along with the statistical criteria as a means for item removal (19).

The final model exhibited most acceptable fit ($\chi^2$(df) = 65.805 (32), $P$-value = <0.001; TLI = 0.902; CFI = 0.927; RMSEA (90% CI) = 0.061 (0.040, 0.080); SRMR = 0.058). The 11 items were well loaded into the three domains. It was suggested that the final model with 11-item Malay version MISS-21 measured what it should measure based on acceptable factor loading and the model adequately accounted for covariance among the items. In general, the CFA suggested that the final model with 11 items had the best fit. All the CFA goodness-of-fit indices, which include ML chi-square ($\chi^2$), CFI, TLI, RMSEA and SRMR supported the model fitness.

The factor loading initial model evaluation was followed by convergent and discriminant validity. The convergent validity assessed the items related to the proposed construct. The AVE is a summary measure of convergent among the items (18). The present study showed that the IO with AVE 0.522 has an adequate convergent and the R domain showed an AVE 0.4 which was considered as close to adequate convergent. Therefore, both...
domains indicate that the items were well correlated with the construct. However, DR has inadequate convergent with AVE of 0.240. DR explains only 24% of the whole questionnaire construct. Based on this result, future researcher should aware at this low variance extracted by the DR domain.

CFA in present study also tested the discriminant validity of constructs through the intercorrelations among the latent factors (20). The discriminant validity is referred to the construct should not correlate with dissimilar or unrelated variables (21). It was presented in the form of SV and AVE that assessed for the AVE > SV between domain. The present study demonstrated evidence of intercorrelation between the domains that were supported by the presence of discriminant validity. However, the SV of R domain was higher than AVE of DR. Therefore, both domains were less intercorrelated and discriminate each other. Even though both domains were not discriminating each other or measure the same thing, the two domains were not combined because of high confidence with the content validity and translation process. Each item in both domains had been reviewed and revealed that they were not redundant. Therefore, the two domains were retained as suggested by the content validity.

Final evaluation involves reliability analysis. Reliability refers to the accuracy and precision of a measurement procedure (22). The present study demonstrated that the two constructs (R and IO) had a measure of good construct reliability as their CR was 0.720 and 0.760, respectively. The value achieved the acceptable value that was more than 0.6 (15). However, DR had a satisfactory reliability as its CR values were close to 0.6 (0.541). The Cronbach’s alpha of the two domains (R and IO) also showed good level of internal consistency with 0.708 and 0.747, respectively. The DR has a fair level of internal consistency with 0.513. The results of Cronbach’s alpha were almost similar as CR values produced by CFA. The overall Cronbach’s alpha value of the final model of the Malay version MISS-21 was 0.669, indicating a satisfactory level of internal consistency. In general, CR based on CFA and Cronbach’s alpha support the internal consistency of the scales although it showed fair reliability in one domain (DR).

Criterion validity examines the extent to which a measure provides results that are consistent with a gold standard. Gold standard is a measurement that is widely accepted as being the best available tool to measure a construct. The shared decision making is a clinical decision-making model that ensures the health care professionals do not make decisions solely on the basis of knowledge, experience and the latest scientific evidence but that they also inform patients broadly and let them take part in all important aspects of the medical decision (23). The present study showed moderate criterion validity (r = 0.406). This reflects that the Malay version MISS-21 has fair and parallel direction with the SDMOQ-9 in assessing patient satisfaction on treatment decision.

Several limitations have been encountered during the entire process of the study. The construct and content may affect the unsatisfactory results due to a few reasons. Firstly, the original author did not perform CFA and therefore, present construct was differed to the original questionnaire. Secondly, the translation fails to reflect original English inventory exactly. There might be a loss of meaning in the process of translation. In addition, the cultural differences of our subjects in perceiving the questionnaires results in different response. Patients who were under the follow-up of family medicine specialist were excluded.
to avoid personalized interaction that might exist due to frequent consultations with a single physician. This personalized patient-specialist relationship and bonding might differ than the usual interaction in any outpatient visit. However, this might influence the inference of this questionnaire to clients under regular specialist follow-up.

Conclusion

The Malay version MISS-21 questionnaire on patient satisfaction has achieved the content validity through thorough translational process. The CFA showed that the final model with 11 items had a good fit. The reduced three domains: DR (4 items), R (4 items) and IO (3 items) showed good internal consistency, good constructs reliability, convergent validity and discriminant validity. DR was the only domain that has a fair internal consistency, convergent and discriminant. In conclusion, the Malay version MISS-21 questionnaire with three domains and 11 items was acceptable to assess patient satisfaction on patient-physician interaction because it was valid, reliable and simple. This validated Malay version questionnaire was renamed as ‘Skala Kepuasan Interaksi Perubatan-11’ (SKIP-11).

This study recommends for further research in different population and cultural background. Replication in other study population will confirm its structure and variance across samples. This would provide further evidence to support the arrangement of the Malay version MISS-21 questionnaire with 11 items.

Acknowledgement

Short-term grant from Universiti Sains Malaysia is duly acknowledged. The authors would like to thank Dr. Richard Meakin for providing the original MISS-21 questionnaire. We would also like to extend our appreciation to the staff and patients of primary health clinic (Klinik Rawatan Keluarga) Hospital Universiti Sains Malaysia for their cooperation and contribution.

Declaration

Funding: Universiti Sains Malaysia short-term grant (304/PPSP/61312008). Ethical approval: Human Research Ethics Committee of Universiti Sains Malaysia.

Conflict of interest: none.

References

Appendix 1

Below is the translated Malay version MISS-21.

**SOAL SELIDIK SKALA KEPUASAN INTERAKSI PERUBATAN (MISS-21)**

Bulatkan satu nombor pada setiap soalan.

<table>
<thead>
<tr>
<th>SOALAN</th>
<th>SANGAT SETUJU</th>
<th>SETUJU</th>
<th>TIDAK PASTI</th>
<th>TIDAK SETUJU</th>
<th>SANGAT TIDAK SETUJU</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Doktor memberitahu masalah saya yang sebenarnya (LT1)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2. Selepas bercakap dengan doktor, saya tahu betapa seriusnya penyakit saya (LT2)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3. Doktor memberitahu semua perkara yang saya ingin tahu mengenai penyakit saya (LT3)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4. Selepas bercakap dengan doktor, saya sangat jelas tentang tempoh yang diperlukan untuk sihat semula (LT4)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5. Doktor telah meredakan kebimbangan saya mengenai penyakit saya (LT5)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6. Doktor nampaknya tahu apa yang perlu dibuat untuk menyelesaikan masalah saya (LT6)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7. Doktor nampak berminat terhadap saya sebagai seorang manusia (HB7)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>8. Doktor nampak mesra dan ramah terhadap saya (HB8)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>9. Doktor nampaknya mengambil berat akan masalah saya (HB9)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10. Saya berasa selesa bercakap tentang hal peribadi dengan doktor ini (HB10)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>11. Doktor memberi peluang kepada saya untuk meluahkan apa sebenarnya yang saya fikirkan (HB11)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>12. Saya berasa doktor sangat memahami saya (HB12)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>13. Inilah doktor yang saya sangat percayai (HB13)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>14. Doktor nampaknya tahu dengan perkara yang beliau lakukan (HB14)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>15. Saya jangka mudah saja untuk menurut nasihat doktor (NM15)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>16. Mungkin agak sukar untuk saya melakukan sepenuhnya apa yang disuruh oleh doktor (NM16)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>17. Saya tidak pasti sama ada rawatan yang diberikan oleh doktor berhalau dengan kesukaran yang akan dihadapi (NM17)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>18. Saya tidak pasti akan menurut nasihat doktor (SK18)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>19. Saya berasa malu ketika bercakap dengan doktor (SK19)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>20. Doktor tidak membenarkan saya memberitahu semua yang saya ingin beritahu tentang masalah saya (SK20)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>21. Doktor benar-benar tidak faham sebab utama saya datang berjumpa dengannya (SK21)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

LT, Lega tekanan; SK, Selesa berkomunikasi; HB, Hubung baik; NM, Niat mematuhi.
Appendix 2

Below is the validated Malay version patients’ satisfaction on patient-physician interaction.

**SKALA KEPUASAN INTERAKSI PERUBATAN (SKIP 11)**

Bulatkan satu nombor pada setiap soalan.

<table>
<thead>
<tr>
<th>NO.</th>
<th>SOALAN</th>
<th>SANGAT SETUJU</th>
<th>SETUJU</th>
<th>TIDAK PASTI</th>
<th>TIDAK SETUJU</th>
<th>SANGAT TIDAK SETUJU</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Selepas bercakap dengan doktor, saya tahu betapa seriusnya penyakit saya (LT2)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Doktor memberitahu semua perkara yang saya ingin tahu mengenai penyakit saya (LT3)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Selepas bercakap dengan doktor, saya sangat jelas tentang tempoh yang diperlukan untuk sihat semula (LT4)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Doktor telah meredakan kebimbangan saya mengenai penyakit saya (LT5)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Doktor nampaknya mengambil berat akan masalah saya (HB9)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Saya berasa selesa bercakap tentang hal peribadi dengan doktor ini (HB10)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Saya berasa doktor sangat memahami saya (HB12)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Inilah doktor yang saya sangat percayai (HB13)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Saya jangka mudah saja untuk menurut nasihat doktor (NM15)—(HI)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Mungkin agak sukar untuk saya melakukan sepenuhnya apa yang disuruh oleh doktor (NM16)—(HI)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>Saya tidak pasti akan menurut nasihat doktor (SK18)—(HI)</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

*Soalselidik versi Bahasa Melayu MISS-21 yang telah melalui analisis kesahan dan kebolehpercayaan (11 item 3 domain). LT, Lega tekanan; HB, Hubung baik; HI, Hasil interaksi (domain baru kombinasi domain NM = Niat mematuhi dan SK = Selesa berkomunikasi)—Rujuk Appendix 1.