Validation of the Arabic version of the Childhood Illness Attitudes Scales

Walid AlQerem1, Jonathan Ling2 and Wassan Jarrar1

1Faculty of Pharmacy, Al-Zaytoonah Private University of Jordan, Amman, Jordan. 2School of Nursing and Health Sciences, University of Sunderland, Sunderland, United Kingdom (Correspondence to: W. AlQerem: waleed.qirim@zuj.edu.jo).

Abstract

Background: Excessive health anxiety can lead to significant disorders such as hypochondriasis. In children, assessment of the severity of health anxiety has been performed using the Childhood Illness Attitudes Scales (CIAS); however, no validated Arabic version of this tool exists.

Aims: This study developed and validated an Arabic version of the CIAS questionnaire in Jordan in 2017 to provide a tool to measure the severity of health anxiety in the Arabic-speaking world.

Methods: The CIAS was translated from English to Arabic then back-translated by a different translator and the 2 versions were compared before cognitive interviews were conducted. The final version of the questionnaire was circulated to 597 children. Of these, 200 were asked to retake the questionnaire after 10–15 days to evaluate test–retest reliability. Confirmatory factor analysis (CFA) on the 4-factor model suggested by the original questionnaire version was performed. Internal consistency and test–retest reliability were evaluated.

Results: The CFA showed good fit (goodness of fit index = 0.92) with the 4-factor model of fears, help seeking, treatment experience, and symptom effects. Test–retest reliability was high and the model had good discriminant validity and internal consistency.

Conclusions: The Arabic version of the CIAS provides a suitable tool to investigate the prevalence and severity of childhood anxiety in the Middle East.

Keywords: Arabic, Childhood Illness Attitudes Scales, confirmatory factor analysis, health anxiety, Jordan

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Introduction

Health anxiety is an experience that we undergo when we misinterpret benign bodily sensations as being indicative of having a serious disease (1). The severity of this experience differs among individuals (2). Mild, occasional health anxiety is normal as it motivates one to seek clinical assistance when experiencing ambiguous bodily changes; such sensations usually soon fade away when medical staff give reassurance that there is no serious disease (1). Being convinced of having a serious disease despite medical reassurance of having good health is a feature of excessive health anxiety. Severe health anxiety can lead to clinically significant disorders such as hypochondriasis, disease phobia (3–5) and panic attacks (5). Sometimes, severe health anxiety can interfere with daily activities such as schoolwork (6) or social activities (7). Health anxiety can also lead to overutilization of healthcare services and therefore increase healthcare costs (8). Somatization accounts for 15–20% of yearly healthcare expenditure in the United States of America (9). This includes the cost of emergency room visits, hospitalization, unnecessary diagnostic expenses, and invasive procedures (10).

The prevalence of excessive health anxiety has been assessed in several studies. Most of these studies concentrated on assessing the severity of health anxiety in adults or adolescents (11,12). Few studies have focused on children, and although some work has shown that children might experience fears related to health issues or death (13,14), the prevalence of such health anxiety conditions in children is not well understood (15,16). However, some studies estimated that the prevalence of health anxiety in primary care paediatric settings was 25–50% of visits (17) and was more common in girls (7).

Although it has been shown that frequencies of illness anxiety disorder are similar across countries and cultures (18), the prevalence of the condition in Jordan has not yet been evaluated, or its burden on the health sector. Thus, adaptation of a validated tool to measure the prevalence and burden of health anxiety is urgently required.

In order to apply treatments that are available for excessive health anxiety, an assessment of the severity and prevalence of such health anxiety conditions should be performed. Such assessment of the severity of health anxiety can be performed using questionnaires such as the Illness Attitudes Scales (IAS) (19). In previous work, assessment of the severity of health anxiety was performed in Canadian children aged 8–15 years, using the Childhood Illness Attitude Scales (CIAS), a simplified
form of the IAS adapted to suit school-aged children (15,16). The CIAS measures fears, beliefs and attitudes associated with health anxiety and abnormal illness behaviour in childhood.

The aim of this study was to develop an Arabic version of the CIAS and to examine its validity in a large sample of schoolchildren aged 10–16 years in Jordan. The validated questionnaire can then be applied to different parts of the Arabic-speaking world throughout the Middle East and North Africa. This Arabic version of the CIAS will allow researchers and health authorities to examine childhood health anxiety and develop an understanding of potential solutions, in regions where this was hitherto impossible. Furthermore, given comparable psychometric properties, this Arabic version will also allow researchers to make comparisons with data collected using the original English version of the CIAS from other regions.

Methods

Participants

The original sample included 310 boys and 347 girls aged 10–16 years from 2 schools in Amman, Jordan. Of these, 60 children participated in cognitive interviews, with the remaining 597 completing the questionnaire. The mean age of the participants was 13.55 (standard deviation 2.02) years. The principals of the 2 schools were approached to obtain their approval. We circulated the parental consent form to the children with the help of teachers who agreed to participate. All children who returned a signed consent form and completed the questionnaire were included in the study. Ethical approval for the research was obtained from Al-Zaytoonah University Research Ethics Committee.

CIAS

The CIAS (10) is a 35-item self-report questionnaire (Appendix 1) that was formulated based on the IAS questionnaire (19). The CIAS uses simplified words and phrases to be more suitable for children. The appropriateness and clearness of the simplified questions were confirmed in a pilot study that interviewed children and received their feedback (10). The questionnaire was validated by evaluating the correlations between CIAS total scores obtained from 200 children and other self-report measures including Fear Survey Schedule for Children-Revised (20), Childhood Anxiety Sensitivity Index (21) and Children’s Depression Inventory (22). The CIAS contains 4 factors that explore fears, help seeking, treatment experience and symptom effects, and these were confirmed by applying exploratory factor analysis (EFA) (15). Thirty-three items of the questionnaire were rated on a 3-point Likert scale (1 = none of the time, 2 = sometimes, 3 = a lot of the time). Items 29–31 measured the frequency of various treatment experiences (1 = 0 times, 2 = 1 or 2 times, 3 = ≥3 times). Thirty-three of the 35 items were used in scoring while the remaining 2 questions were open ended and provided additional information about the patients’ medical history.

Data collection

The CIAS was translated from English to Arabic then back-translated by a different translator, and the 2 versions were compared. A school was approached in Amman to obtain data. Initially, 60 cognitive interviews were conducted with 60 children aged 9–16 years after obtaining their parents’ approval, and confirming that all questions were clear and could be understood by the children. The translated questionnaire is shown in Appendix 2. A parental consent form was circulated to an additional 680 children and 597 parents’ approved that their children’s participation in the study. Of the 597 children, 200 were asked to re-take the questionnaire after 10–15 days.

Several methods for determining the appropriate sample size for conducting a confirmatory factor analysis (CFA) and EFA have been proposed. However, Myers et al. (23) found that data from 500 individuals provide sufficient power for 99.9% of samples. Therefore, we aimed to collect data from at least 500 participants.

Statistical analysis

The items were treated as ordinals and the normality of scores on each subscale of each model was assessed by calculating kurtosis values. Normality was assumed when kurtosis was between −2 and +2 (24).

The suitability of the data for factor analysis was evaluated using the Kaiser–Meyer–Olkin value and Bartlett’s Test of Sphericity. CFA on the 4-factor model was conducted using AMOS version 22 and SPSS version 20. Item loadings were examined and goodness of fit evaluated by calculating minimum discrepancy (CMIN/DF), goodness of fit index (GFI), Tucker–Lewis index (TLI), comparative fit index (CFI) and root mean square error of approximation (RMSEA). Acceptable values are < 5 for CMIN/DF, < 0.05 for RMSEA and > 0.9 for GFI, CFI and TLI (25). A cutoff of 0.3 was used to determine if items loaded on a factor, and the correlations between the factors were evaluated using Pearson’s correlation to examine discriminant validity.

EFA was conducted using principal-components analysis to evaluate a suitable model for the data after determining that the 4-factor model that included 33 items was unsuitable for our data. To determine the appropriate number of factors to extract, parallel analysis (Eigenvalue Monte Carlo Simulation) was conducted using O’Connor’s SPSS syntax (26), and scree plots.

A pattern matrix was generated using oblimin rotation, which was chosen because the correlation between factors 1 and 4 exceeded the cutoff point of 0.32 (r = 0.35). Any communality below 0.4 was excluded. The factor correlation matrix was evaluated to determine discriminant validity. Internal consistency for each subscale was evaluated by calculating Cronbach’s α and the final model was re-evaluated using CFA with the maximum likelihood method. Finally, test–retest reliability was measured using Pearson’s correlation.

The ceiling and floor effects were evaluated by calculating the percentage of participants that had
the highest or lowest possible scores; the effect was considered present when the subjects that achieved these scores exceeded 15% (27).

**Results**

The Kaiser–Meyer–Olkin test result was 0.9 and Bartlett’s Test of Sphericity was significant \[\chi^2 (496) = 1845.56, P < 0.01\], which indicated the suitability of the data for factor analysis. When examining the communalities, Item 8 (Do you try not to have habits that may be bad for you?) and Item 15 (When your doctor tells you that you are not sick, do you not believe him/her?) had low communality (< 0.2) and were excluded from the analysis. EFA was rerun after excluding Items 8 and 15. Scree plots were examined and suggested 4 factors (Figure 1); as four eigenvalues are present left of the “elbow” of the graph.

The 4-factor model was confirmed when conducting parallel analysis. The 4-factor model included fears, help seeking, treatment experience and symptom effects. The communalities of the items included in the 4-factor model were all > 0.4 (Table 1) and the lowest loading was 0.65 (Item 3 in the Fear subscale: Does the thought of being sick scare you? (Table 2). Cronbach’s \[\alpha\] values were examined and the lowest was 0.85 for treatment experience. Removing any further items would not improve the reliability. Subscale names, item numbers, factor loadings, communalities, and Cronbach’s \[\alpha\], means, standard deviations and kurtosis for the 4-factor model are shown in Tables 1 and 2. Cronbach’s \[\alpha\] indicated good internal consistency. Correlations between the 4 factors were examined using Pearson correlations and all were low, which indicated good discriminant validity. The kurtosis for the 4 subscales was between −2 and 2, which indicated normality.

CFA of the suggested 4-factor model including the 31 remaining items with 5-error covariance in the same factors yielded acceptable model fit indicators (CMIN/DF = 2.58, GFI = 0.9, CFI = 0.96, TLI = 0.96 and RMSEA = 0.049). Test–retest reliability was tested by Pearson’s correlations and all the items were highly correlated (all > 0.7, with most > 0.8).

The ceiling and floor effects were evaluated by calculating the percentage of subjects that had the highest or lowest possible scores, and none of the factors exceeded the 15% cutoff point (27).

**Discussion**

This study formulated and validated an Arabic form of the CIAS Questionnaire (16). The results of the EFA resembled the original 4-factor model suggested by Wright et al. (15). These factors consist of fear of illness, death, disease and pain, and help seeking that evaluated seeking treatment and avoiding unhealthy foods, symptom effects and treatment experience that were present in the original IAS study (19). Symptom effects measure the troublesome effects of symptoms on daily activity. However, there were some differences between the Arabic version of the CIAS and the English version of Wright et al.: Items 11, 15 and 25 had loading issues in their designated factor in the study of Wright et al. and therefore were excluded from the model. We included treatment experience (Items 11 and 15) and symptom effects (Item 25) in our final model. We excluded Item 8 because of low communalities, although Wright et al. found this item loaded on the factor treatment experience, so it was removed in the final model to improve reliability. This was reasonable considering that Item 8 (Do you try not to have habits that may be bad for you?)

![Scree plot results indicating 4 eigenvalues left to the “elbow” of the graph](image-url)
Table 1: CIAS subscale names, item numbers, communalities, and Cronbach’s α, means, SD and kurtosis for the 4-factor model.

| Subscale (Item nos.) | Communalities min–max | Cronbach’s α | Mean (SD) | Kurtosis |
|----------------------|------------------------|--------------|-----------|----------|
| Fear (1–4, 7, 16–23) | 0.45–0.83              | 0.96         | 2.0 (0.638) | −1.27    |
| Help seeking (5, 6, 9, 10, 12–14, 26, 27) | 0.62–0.79              | 0.95         | 2.04 (0.689) | −1.38    |
| Symptom effects (24, 25, 33–35) | 0.66–0.89              | 0.92         | 2.01 (0.641) | −0.88    |
| Treatment experience (11, 15, 29–31) | 0.56–0.7               | 0.85         | 2.02 (0.637) | −0.99    |

Table 2: The final model factors’ loadings, item-total correlations, Cronbach’s α if items deleted

| Questions | Factor loadings | Corrected item-total correlation | Cronbach’s α if item deleted |
|-----------|----------------|---------------------------------|-----------------------------|
| **Fear**  |                |                                 |                             |
| Q1: Do you worry about your health? | 0.72 | 0.67 | 0.96 |
| Q2: Are you worried that you might get really sick in the future? | 0.69 | 0.87 | 0.95 |
| Q3: Does the thought of being sick scare you? | 0.66 | 0.62 | 0.96 |
| Q4: If you have pain, do you worry that it may be caused by a bad sickness? | 0.61 | 0.89 | 0.95 |
| Q7: If pain lasts for a week or more, do you believe that you have a bad sickness? | 0.62 | 0.78 | 0.95 |
| Q16: If a doctor tells you what he/she found, do you soon begin to believe that you might have another sickness? | 0.83 | 0.79 | 0.95 |
| Q17: Are you afraid of news that reminds you of death? | 0.83 | 0.80 | 0.95 |
| Q18: Does the thought of dying scare you? | 0.76 | 0.73 | 0.95 |
| Q19: Are you afraid that you might die soon? | 0.88 | 0.85 | 0.95 |
| Q20: Are you afraid that you might have cancer? | 0.74 | 0.71 | 0.96 |
| Q21: Are you afraid that you have something wrong with your heart? | 0.83 | 0.79 | 0.95 |
| Q22: Are you afraid that you have another bad sickness? | 0.77 | 0.73 | 0.95 |
| Q23: When you read or hear about a sickness, do you think that you might have that sickness? | 0.90 | 0.87 | 0.95 |
| **Help seeking** |                |                                 |                             |
| Q5: If pain lasts for a week or more, do you tell your mom or dad? | 0.79 | 0.73 | 0.95 |
| Q6: If pain lasts for a week or more, do you ask your mom or dad if you can go to the doctor? | 0.80 | 0.75 | 0.95 |
| Q9: Do you try not to eat foods that may not be good for you (such as junk food)? | 0.87 | 0.83 | 0.94 |
| Q10: Do you check your body to find out if there is something wrong? | 0.86 | 0.81 | 0.94 |
| Q12: When you feel sick, do you tell your mom or dad? | 0.85 | 0.81 | 0.94 |
| Q13: When you feel sick, do you ask your mom or dad if you can go to the doctor? | 0.87 | 0.83 | 0.94 |
| Q14: Do you ask your mom or dad for medicine? | 0.89 | 0.85 | 0.94 |
| Q26: When you have a strange feeling in your body, do you tell your mom or dad? | 0.85 | 0.81 | 0.94 |
| Q27: When you have a strange feeling in your body, do you ask your mom or dad if you can go to the doctor? | 0.82 | 0.77 | 0.95 |
| **Symptoms effects** |                |                                 |                             |
| Q24: When you have a strange feeling in your body, do you find it hard to think about something else? | 0.82 | 0.72 | 0.91 |
| Q25: When you have a strange feeling in your body, do you worry about it? | 0.88 | 0.81 | 0.89 |
| Q33: Do strange feelings in your body stop you from going to school? | 0.81 | 0.71 | 0.91 |
| Q34: Do strange feelings in your body stop you from enjoying yourself? | 0.94 | 0.90 | 0.88 |
| Q35: Do strange feelings in your body stop you from keeping your mind on what you are doing? | 0.88 | 0.80 | 0.90 |
| **Treatment experience** |                |                                 |                             |
| Q1: Do you believe that you are really sick, but the doctors do not know why? | 0.84 | 0.71 | 0.81 |
| Q5: When your doctor tells you that you are not sick, do you not believe him/her? | 0.74 | 0.61 | 0.83 |
| Q29: How many times have you seen your doctor in the last year? | 0.78 | 0.64 | 0.83 |
| Q30: How many doctors have you seen in the past year? | 0.79 | 0.68 | 0.82 |
| Q31: How often have you been treated (had to take medicine or had surgery) during the past year? | 0.81 | 0.67 | 0.82 |
Validation de la version arabe de l’échelle d’attitude à l’égard de la maladie chez l’enfant

Résumé

Contexte : Une anxiété excessive en matière de santé peut entraîner des troubles importants tels que l’hypocondrie. Chez l’enfant, l’évaluation de la gravité de l’anxiété liée à la santé a été réalisée à l’aide de l’échelle d’attitude à l’égard de la maladie chez l’enfant ; cependant, aucune version arabe validée de cet outil n’existe.

Objectifs : La présente étude a mis au point et a validé une version arabe du questionnaire des échelles d’attitude à l’égard de la maladie chez l’enfant en Jordanie en 2017 afin de fournir un outil permettant de mesurer la gravité de l’anxiété liée à la santé dans le monde arabophone.

Méthodes : Le questionnaire susmentionné a été traduit de l’anglais vers l’arabe. Il a ensuite fait l’objet d’une rétro-translation par un autre traducteur et les deux versions ont été comparées avant la réalisation des entretiens cognitifs. La version finale du questionnaire a été distribuée à 597 enfants. Parmi ceux-ci, 200 ont été invités à répondre à nouveau au questionnaire après 10 à 15 jours pour évaluer la fiabilité test-retest. Une analyse factorielle confirmatoire sur le modèle à quatre facteurs basé sur la version originale du questionnaire a été réalisée. La cohérence interne et la fidélité test-retest ont été évaluées.

Résultats : L’analyse factorielle confirmatoire a montré un bon ajustement (indice d’ajustement = 0.92) avec le modèle à quatre facteurs des peurs, de la recherche d’aide, de l’expérience du traitement et des effets des symptômes. La fiabilité test-retest était élevée et le modèle avait une bonne validité discriminante et une bonne cohérence interne.

Conclusions : La version arabe de l’Échelle d’attitude à l’égard de la maladie chez l’enfant fournit un outil approprié pour enquêter sur la prévalence et la gravité de l’anxiété infantile au Moyen-Orient.
التحقق من موثوقية النسخة العربية لمقاييس اتجاهات أمراض الطفولة

وليد الكريم، جوناثان لينج، واسان جرار

الخلاصة

يمكن أن يؤدي القلق الصحي المفرط إلى اضطرابات كبيرة مثل التوهم المرضي. أجري، في الأطفال، تقييم لشدة القلق الصحي بمقاييس الخلفية: اتجاهات أمراض الطفولة؛ مع أنه لا تتوفر نسخة عربية مصدق عليها لهذه الأداة.

أهداف الدراسة: هدفت هذه الدراسة إلى إعداد نسخة عربية لاستبيان حول مقاييس اتجاهات أمراض الطفولة في الأردن في عام 2017، وأثبتت موثوقيتها كأداة لقياس شدة القلق الصحي في العالم العربي.

طرق البحث: تُرِجَم استبيان مقاييس اتجاهات أمراض الطفولة من الإنجليزية إلى العربية، ثم أعيدت ترجمتها من مترجم مختلف وقورنت النسختان.

النتائج: أظهر تحليل عامل التأكيد توافقًا جيدًا (مؤشر جودة الملءمة = 0.92) مع نموذج مكون من أربعة عوامل من المخاوف، والمساعدة في البحث، وتهيج العلامة، وتأثيرات الأعراض. كانت موثوقية الاختبار - وإعادة الاختبار عالية وكان النموذج صلحاً وتمايز جيدة ونماذج داخلي.

الاستنتاجات: تعد النسخة العربية من "استبيان مقاييس اتجاهات أمراض الطفولة" أداة مناسبة لاستقصاء انتشار قلق الطفولة في الشرق الأوسط.

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Appendix 1: Original CIAS:

*Childhood Illness Attitude Scales*
K. D. Wright & G. J. G. Asmundson (2003)

**Directions:** Below are a number of questions. Read each question carefully and put an X on the line in front of the words that best answers the question. There are no right or wrong answers. Remember, find the words that best answers the question.

| Question                                                                 | None of the time | Sometimes | A lot of the time |
|-------------------------------------------------------------------------|------------------|-----------|-------------------|
| 1. Do you worry about your health?                                       |                  |           |                   |
| 2. Are you worried that you might get really sick in the future?         |                  |           |                   |
| 3. Does the thought of being sick scare you?                             |                  |           |                   |
| 4. If you have pain, do you worry that it may be caused by a bad sickness? |                  |           |                   |
| 5. If pain lasts for a week or more, do you tell your mom or dad?        |                  |           |                   |
| 6. If pain lasts for a week or more, do you ask your mom or dad if you can go to the doctor? |                  |           |                   |
| 7. If pain lasts for a week or more, do you believe that you have a bad sickness? |                  |           |                   |
| 8. Do you try not to have habits that may be bad for you, such as smoking, drinking, or drugs? |                  |           |                   |
| 9. Do you try not to eat foods that may not be good for you (such as junk food)? |                  |           |                   |
| 10. Do you check your body to find out if there is something wrong?      |                  |           |                   |
| 11. Do you believe that you are really sick, but the doctors do not know why? |                  |           |                   |
| 12. When you feel sick, do you tell your mom or dad?                     |                  |           |                   |
| 13. When you feel sick, do you ask your mom or dad if you can go to the doctor? |                  |           |                   |
| 14. Do you ask your mom or dad for medicine?                             |                  |           |                   |
15. When your doctor tells you that you are not sick, do you not believe him/her? 
___ None of the time  ___ Sometimes  ___ A lot of the time

16. If a doctor tells you what he/she found, do you soon begin to believe that you might have another sickness? 
___ None of the time  ___ Sometimes  ___ A lot of the time

17. Are you afraid of news that reminds you of death? 
___ None of the time  ___ Sometimes  ___ A lot of the time

18. Does the thought of dying scare you? 
___ None of the time  ___ Sometimes  ___ A lot of the time

19. Are you afraid that you might die soon? 
___ None of the time  ___ Sometimes  ___ A lot of the time

20. Are you afraid that you might have cancer? 
___ None of the time  ___ Sometimes  ___ A lot of the time

21. Are you afraid that you have something wrong with your heart? 
___ None of the time  ___ Sometimes  ___ A lot of the time

22. Are you afraid that you have another bad sickness? 
___ None of the time  ___ Sometimes  ___ A lot of the time

   Which sickness? ____________________________________________

23. When you read or hear about a sickness, do you think that you might have that sickness? 
___ None of the time  ___ Sometimes  ___ A lot of the time

24. When you have a strange feeling in your body, do you find it hard to think about something else? 
___ None of the time  ___ Sometimes  ___ A lot of the time

25. When you have a strange feeling in your body, do you worry about it? 
___ None of the time  ___ Sometimes  ___ A lot of the time

26. When you have a strange feeling in your body, do you tell your mom or dad? 
___ None of the time  ___ Sometimes  ___ A lot of the time

27. When you have a strange feeling in your body, do you ask your mom or dad if you can go to the doctor? 
___ None of the time  ___ Sometimes  ___ A lot of the time

28. Has your doctor told you that you have a sickness?  ___ Yes  ___ No

   If yes, what sickness? _________________________________________

29. How many times have you seen your doctor in the last year? 
___ 0 times  ___ 1-2 times  ___ 3 or more times

30. How many doctors have you seen in the past year? 
___ 0  ___ 1-2  ___ 3 or more
31. How often have you been treated (had to take medicine or had surgery) during the past year?  

___ 0 times  ___ 1-2 times  ___ 3 or more times

32. If you have had treatments in the last year, what were they?

_______________________________________________________________

The next three questions concern feelings in your body (for example, pain, aches, pressure in your body, breathing problems, being tired etc.)

33. Do strange feelings in your body stop you from going to school?  

___ None of the time  ___ Sometimes  ___ A lot of the time

34. Do strange feelings in your body stop you from enjoying yourself?  

___ None of the time  ___ Sometimes  ___ A lot of the time

35. Do strange feelings in your body stop you from keeping your mind on what you are doing?  

___ None of the time  ___ Sometimes  ___ A lot of the time
| Question                                                                 | Yes | No    | Not applicable | Don't know |
|-------------------------------------------------------------------------|-----|-------|----------------|------------|
| هل أنت قلق على صحتك؟                                                   |     |   ✔️  |                 |            |
| هل أنت قلق من أن تصبح مريضا جدا في المستقبل؟                         |     |   ✔️  |                 |            |
| هل فكرة أن تكون مريض تخيفك؟                                          |     |   ✔️  |                 |            |
| إذا شعرت بالألم هل تقصد من أن يكون سبب الألم مرضي؟                   |     |   ✔️  |                 |            |
| إذا استمر الألم لأسابيع أو أكثر هل تخاف أن يكون الخاص بك أمراضي؟     |     |   ✔️  |                 |            |
| هل تقلق من أن تكون مريض تخيفك؟                                       |     |   ✔️  |                 |            |
| إذا استمر الألم لأسابيع أو أكثر هل تخاف أن تكون أمراضي؟              |     |   ✔️  |                 |            |
| هل تقلق من أن تكون مريض تخيفك؟                                       |     |   ✔️  |                 |            |
| إذا استمر الألم لأسبوع أو أكثر هل تخاف أن يكون الخاص بك أمراضي؟     |     |   ✔️  |                 |            |
| هل تحاول أن تقلع عن العادات التي ممكن أن تكون ضارة للصحتك مثل التدخين؟ |     |   ✔️  |                 |            |
| هل تحاول أن تقلع عن أكل الأطعمة التي قد تكون مضرة بصحتك مثل البيتزا والأطعمة الكثيرة الدهنية؟ |     |   ✔️  |                 |            |
| هل تخاف من الأخبار التي تذكرك بالموت؟                                   |     |   ✔️  |                 |            |
| هل تخاف من الموت؟                                                       |     |   ✔️  |                 |            |
| هل تخاف أن تموت قريبا؟                                                  |     |   ✔️  |                 |            |
| هل تخاف من أن تكون مصابا بالسرطان؟                                   |     |   ✔️  |                 |            |
| هل تخاف من أن تكون مصابا بمرض في القلب؟                               |     |   ✔️  |                 |            |
| هل تخاف من أن يكون لديك مرض مسبي آخر؟                              |     |   ✔️  |                 |            |

Appendix 2: Translated CIAS
الكثير من الأوقات أحياناً إطلاقاً
إذا شعرت أن لديك إحساس غريب في جسدك هل تقلق بشانه؟
إذا شعرت بإحساس غريب في جسدك هل تطلب من والدك أو والدك أن يأخذاك إلى الطبيب؟
إذا شعرت بإحساس غريب في جسدك هل تقلق بشأنه؟
إذا شعرت بإحساس غريب في جسدك هل تطلب من والدك أو والدك أن يأخذاك إلى الطبيب؟
• هل أخبرك الطبيب أنك تعاني من مرض ما؟
• إذا كانت الإجابة بالإيجاب فما هو؟
• كم مرة زرت الطبيب خلالي العام الماضي؟
• كم طبيب زرت في العام الماضي؟
• كم مرة تم علاجتك (خضعت لعملية أو أخذت دواء) خلال العام الماضي؟
• إذا أخذت أي علاجات خلال العام الماضي إذا كانت؟
• الأمثلة الثلاثة القادمة تتعلق بإحساس في جسدك (مثل الألم، الأوجاع، صعوبة في التنفس الاحساس بالارهاق ...........)
• هل الإحساس الغريب في جسدك يمنعك من الذهاب للمدرسة؟
• هل الإحساس الغريب في جسدك يمنعك من الاستمتاع بوقتك؟
• هل الإحساس الغريب في جسدك يمنعك من التركيز فيما تقوم به؟

| مرات أو أكثر | 3 مرة | 2 مرة | 1 مرة | نهائياً |
|----------------|-------|-------|-------|-------|
| أحياناً إطلاقاً |       |       |       |       |

- 3 مرات أو أكثر
- 2 مرة
- 1 مرة
- نهائياً