Short Health Anxiety Inventory (SHAI)-Polish version: evaluation of psychometric properties and factor structure

Janusz Kocjan

Summary

Objectives: The aim of the study was to adapt the English language version of the Short Health Anxiety Inventory (SHAI) developed by Salkovskis et al. to the Polish language and to investigate its psychometric properties and factor structure in clinical and non-clinical samples.

Method: A total of 296 individuals participated in the study: 172 in the clinical sample (46% females and 54% males; mean age: 57.29 ± 13.01 years) and 124 in the non-clinical sample (51% females and 49% males; mean age: 54.45 ± 13.63). They completed the Polish language version of an 18-item SHAI and the Hamilton Anxiety Rating Scale (HAM-A). To assess psychometric properties, internal consistency, test-retest reliability, item-total statistics, construct and convergent validity, an analysis of ROC curves was performed.

Results: Both samples had excellent internal consistency (Cronbach's α 0.91 and 0.92) and test-retest reliability (r=0.91 and r=0.94). Correlational analysis revealed a significant relationship of anxiety to SHAI total score and to each of the two SHAI subscales. Factor analysis revealed a two-factors solution, which accounted for 48% and 49% of the variance. A cut-off score of 20 was optimal for detecting a severe form of health anxiety in the clinical and non-clinical sample, providing the best balance between specificity and sensitivity.

Discussion: Despite the widespread application of SHAI, a Polish language version has not yet been created. The psychometric properties of the scale confirmed a high reliability and accuracy of the proposed solutions.

Conclusions: Our findings confirm that the SHAI-Polish version is a reliable and valid instrument for detecting health anxiety.

hypochondriasis, health anxiety, Short Health Anxiety Inventory

The classification and diagnosis of hypochondria has always been a serious problem and raised many doubts [1]. In literature, it was recently described as one of the most difficult and challenging areas of modern psychiatry [2]. In light of previous taxonometric studies, hypochondria had for a long time been classified as a somatoform disorder. However, conceptually it is best understood as an anxiety disorder (health anxiety), as had been suggested earlier. The mechanism described is a result of observation, supported by empirical findings, that the symptoms of hypochondriasis overlap remarkably with some anxiety disorders (particularly panic disorder, obsessive–compulsive disorder and some types of phobia) [3]. This is also reflected in the new DSM-5 classification, where the diagnosis of hypochondriasis was replaced by two new diagnostic entities: somatic symptom disorder (SSD) and illness anxiety disorder

Janusz Kocjan: Silesian Medical University in Katowice, School of Medicine in Katowice, Poland.
Correspondence address: j_kocjan@wp.pl

(IAD). Both diagnoses share high health anxiety as a common criterion, but additional somatic symptoms are required only for SSD [4].

The cognitive–behavioral model proposed by Salkovskis & Warwick explains the development and maintenance of severe health anxiety (a clinical form of hypochondriasis) [5,6]. This approach builds on Beck's cognitive theory of psychopathology, which proposes that emotional disorders are caused by negative cognitive schemas and dysfunctional beliefs [7]. For example, negative beliefs about the self, the world and the future underlie depression, whereas beliefs about social incompetence and negative evaluation underlie social phobia. In case of hypochondriasis, the habitual tendency to misinterpret health-related information as highly threatening is the result of situational, but erroneous assumptions about health and illness.

Currently, several questionnaires can be used to assess health anxiety: Health Anxiety Questionnaire (HAQ) [8], the Illness Attitude Scales (IAS) [9], the Whiteley Index of hypochondriasis (WI) [10], Short Health Anxiety Inventory (SHAI) [11], Multidimensional Inventory of Hypochondriacal Traits (MIHT) [12], Somatosensory Amplification Scale (SSAS) [13], Illness Behavioral Questionnaire (IBQ) [14] and Minnesota Multiphasic Personality Inventory (MMPI-2) [15]. Only the SHAI was constructed according to the cognitive–behavioral model, whereas MIHT's usefulness seems to be limited. This is due to the structure of the questionnaire, where 31 questions are divided into 4 subscales to assess the major recognised dimensions of hypochondriasis: cognitive, behavioral, affective and perception dimensions. Although the first two subscales assess specific facets of the cognitive and behavioral dimensions, they focus on the very aspects of hypochondriasis – namely, beliefs about others being unsupportive (alienation) and reassurance-seeking behaviors. These subscales fail to cover other important features of hypochondriasis emphasized in cognitive–behavioral models of health anxiety, including catastrophic misinterpretation of somatic cues, bodily checking and avoidance of health threat information [16]. Furthermore, most of the previously developed scales contain statements concerning the belief that one is seriously ill (e.g. "I have a serious illness", "I'm seriously

ill"), which leads to overestimation of results in patients suffering from somatic diseases or diagnosed based on their suspicions. SHAI was designed to limit this problem, so that it is applicable both in a person suffering from health anxiety and in patients with other anxiety disorders, co-existing physical illness, poor general health, those undergoing medical consultation, and in healthy subjects [11].

To my knowledge, of the questionnaires mentioned above, only the MMPI-2 was validated in Poland. Its major scales are 3 control scales and 10 clinical scales, including a 32-item HD scale used to assess hypochondriacal disorders [17]. However, the scale contains items related to somatic complaints and does not mention hypochondriacal fears or beliefs. Therefore, it seems reasonable to use this scale in the assessment of somatization rather than health anxiety. The lack of adequate tool to identify and assess health anxiety poses a problem for clinicians as well as therapists working with such patients. It also causes difficulties in estimating the prevalence of health anxiety in the general population as well as identifying its determinants and subsequent consequences in various areas. A Polish language version of a health anxiety questionnaire is necessary. Given the current conceptualization of hypochondriasis as an anxiety disorder, as well as the advantages and disadvantages (that do not negate the clinical utility of these measures) of available research tools, the present study focused on the Short Health Anxiety Inventory.

The aim of the study was to adapt the English language version of the SHAI to the Polish context and to investigate its psychometric properties and factor structure in clinical and non-clinical samples.

METHOD

Participants

Overall, 296 participants were examined (age range 23–80 years), divided into two groups. Group 1 (clinical) consisted of 172 patients (46% females and 54% males) with cardiovascular diseases undergoing cardiac treatment in Professor Leszek Giec Upper Silesia Medical Centre in Ka-

towice. The mean age of the subjects was 57.29 ± 13.01 years. There was an equal distribution in the group based on education level: vocational (n=62, 36%), secondary (n=56, 33%) and higher (n=54, 31%) education. The patients' areas of residence were town (n=93, 54%), city (n=61, 36%) and village (n=18, 10%). The majority of respondents were occupationally inactive (n=93, 54% vs. n=79, 46% of occupationally active subjects). Group 2 (non-clinical) comprised 124 persons (51% females and 49% males, mean age 53.89 ± 13.78) who do not have any chronic diseases. Education level was mostly higher education (n=38, 41%), followed by vocational (n=32, 35%) and secondary (n=22, 24%) education. As before, the main area of residence was town (n=49, 53%), followed by city (n=33, 36%) and village (n=10, 11%). The majority of respondents in group 2 were occupationally inactive (n=48, 52% vs. n=44, 48% occupationally active).

There were no differences between the groups with regard to gender (p=0.482), age (p=0.132), education level (p=0.261), occupational status (p=0.753) and area of residence (p=0.969).

PSYCHOMETRIC INSTRUMENTS

- Short Health Anxiety Inventory (SHAI)

SHAI is an 18-item self-report measure of health anxiety developed by Salkovskis et al. [11]. It enables estimating the magnitude of health anxiety in two components: illness likelihood (IL) and negative consequences of an illness (NC), as well as in the general index, which constitutes the sum of point values of both components. Each of the 18 items consists of four statements, in which individuals select the one that best reflects their feelings over the past 6 months. In monitoring the treatment process, questions should be related to a shorter period of time, e.g. past week. If more than one statement reflects the patient's feelings, they select all that apply in their case. The responses are scored on a 4-point Likert scale, where: 0 – no symptoms, 1 – mild symptoms, 2 – severe symptoms and 3 – very severe symptoms, clinical form of hypochondriasis. If more than one statement is selected, the higher scoring statement is used for analysis [11].

The translation process proceeded in several stages. After obtaining the agreement from the first author, the original scale was translated from the English to the Polish language by two independent translators – English philology graduates who work as English language lecturers in Poland. Both drafts were compared and the most accurate versions of the controversial points were determined. In the next stage, the text was back-translated and compared with the original English language version. The final form of the Polish language version of SHAI was exactly the same as the original.

- Hamilton Anxiety Rating Scale (HAM-A)

This scale is widely used to to detect anxiety states. It consists of 14 items which were divided into two subscales evaluating psychic anxiety (mental agitation and psychological distress) and somatic anxiety (physical complaints related to anxiety). Each item is scored on a 5-point Likert scale, where 0 represents lack of anxiety symptoms and 4 represents a severe form of anxiety. The result is interpreted as follows: <17 points no anxiety, 18–24 points mild severity, 25–30 moderate severity and >30 points severe anxiety disorders [18,19].

STATISTICAL METHODS

All statistical analyses were conducted using the STATISTICA (StatSoft) software, version 10.0. Descriptive statistics were performed for quantitative (continuous) variables by calculating means and standard deviations. The Cronbach's alpha coefficient was used to measure the internal consistency and homogeneity of items. The test-retest method was used to assess scale stability. Convergent validity was assessed by calculating Pearson's correlation coefficient between SHAI and other measures used to assess health anxiety. A cut-off score for identification of the clinical form of hypochondriasis was derived using ROC (receiver operating characteristic) curves. The significance level was set at p<0.05.

RESULTS

Means, standard deviations and Cronbach's alpha coefficients for SHAI and its subscales are shown in Table 1.

Table 1. Descriptive statistics (SHAI and subscales)

Variables (points range)	Clinical group			Non-clinical group		
	M	SD	α	M	SD	α
IL (0–42)	15.16	7.32	0.91	10.25	7.27	0.92
NC (0–12)	2.53	2.08	0.74	2.86	2.15	0.75
SHAI (0–54)	17.69	8.62	0.91	13.22	8.82	0.92

Notes: IL, illness likelihood; NC, negative consequences of illness.

Test-retest reliability was used to determine scale stability. Repeat measurements were performed 1 week (cardiac patients) and 3 weeks (healthy subjects) after initial testing. The correlation coefficient between the two sets of responses was as follows: clinical samples (n=72) r=0.91, p<0.001; non-clinical samples (n=64) r=0.94, p<0.001.

Next, scale homogeneity was evaluated. The mean item-total correlations were r=0.35 in the clinical sample and r=0.44 in the control group. In both groups, the lowest item-total correlation coefficient was found in item 16 (r=0.42 in the clinical sample and r=0.47 in the non-clinical sample), but exceeded the minimal accepted value (r=0.30), indicating that each item was related to the overall scale [19]. Cronbach's alpha decreased if individual items were excluded.

Correlations between SHAI and its subscales with the Hamilton Anxiety Rating Scale are presented in Table 2.

Table 2. SHAI and Hamilton Anxiety Scale correlations

Variable	Clinical group			Non-clinical group		
	SHAI	SHAI-IL	SHAI-NC	SHAI	SHAI-IL	SHAI-NC
SHAI	-	0.98*	0.71*	-	0.97*	0.79*
SHAI-IL	0.98*	-	0.58*	0.97*	-	0.64*
SHAI-NC	0.71*	0.58*	-	0.79*	0.64*	-
HAM-A	0.67*	0.54*	0.41*	0.63*	0.57*	0.39*
HAM-A PS	0.60*	0.58*	0.44*	0.55*	0.51*	0.42*
HAM-A SS	0.52*	0.43*	0.35*	0.47*	0.38*	0.36*

Notes: HAM-A PS: Hamilton Anxiety Scales: physic component; HAM-A SS: Hamilton Anxiety Scales: somatic component; SHAI-IL, Short Health Anxiety Inventory – illness likelihood subscale; SHAI-NC, Short Health Anxiety Inventory – negative consequences of illness; *p<0.001.

Factor loadings, eigenvalues and proportions of total variance are presented in Table 3.

Table 3. SHAI: confirmatory factor analysis – factor loading for the two-factor solution

Factors of health anxiety	Clinical group		Non-clinical group	
	IL	NC	IL	NC
1. Worry about health	0.76	0.19	0.78	0.28
2. Noticing aches and pains	0.61	0.07	0.56	0.31
3. Awareness of bodily sensations	0.54	0.04	0.47	0.33
4. Ability to resist thoughts of illness	0.73	0.08	0.62	0.32
5. Fear of having serious illness	0.87	0.29	0.64	0.22
6. Picturing self being ill	0.60	0.01	0.67	0.08

7. Ability to take mind off health thought	0.67	0.09	0.80	0.28
8. Relieved if doctor says nothing's wrong	0.46	0.38	0.71	0.20
9. Hear about illness	0.61	0.23	0.55	0.20
10. Wonder what body sensations mean	0.42	0.28	0.55	0.26
11. Risk for developing illness	0.58	0.27	0.56	0.35
12. Belief of having a serious illness	0.80	0.29	0.67	0.27
13. Think of something else when I feel bodily sensations	0.50	0.08	0.50	0.34
14. Perception of familiars/friends on your health concerns	0.55	0.32	0.49	0.31
15. Ability to enjoy life if have an illness	0.38	0.49	0.12	0.95
16. Chance of medical cure if have an illness	0.38	0.41	0.30	0.64
17. Illness would ruin aspects of life	0.39	0.50	0.30	0.82
18. Loss of dignity if had an illness	0.34	0.52	0.20	0.81
Eigenvalues	6.80	1.53	5.71	2.65
Total variance	0.39	0.09	0.32	0.17

Notes: IL, illness likelihood; NC, negative consequences of illness.

To verify the parameters of the two-factor model, confirmatory factor analysis (CFA) was conducted. The model was tested using the following goodness-of-fit indices: χ^2/d.f. (chi-square relative to its degrees of freedom), CFI (comparative fit index), IFI (incremental fit index), TLI (Tucker-Lewis index), NFI (normed fit index) and RMSEA (root mean square error of approximation). The results are presented in Table 4.

Table 4. Goodness-of-fit indices of the two-factor solution to empirical data from the samples

Groups	Goodness-of-fit indices									
	χ^2	df	χ^2/df	p	CFI	IFI	TLI	NFI	RMSEA	RMSEA 90%CI
Entire group (n=296)	331.21	118	2.81	<0.001	0.95	0.95	0.94	0.90	0.07	0.07–0.08
Clinical sample (n=172)	276.13	96	2.87	<0.001	0.96	0.96	0.96	0.91	0.06	0.06–0.07
Non-clinical sample (n=124)	261.73	96	2.73	<0.001	0.95	0.95	0.94	0.89	0.06	0.06–0.07

Notes: CFI, comparative fit index; IFI, incremental fit index; NFI, normed fit index; RMSEA, root mean square error of approximation; TLI, Tucker-Lewis index.

Based on the HARS results, anxiety disorders were found in 79 (26.68%) subjects, from a total sample of 296 respondents. In this group, the mean SHAI score was 25.66 points (SD=9.27; range: 7–42) and was statistically significant higher (p<0,001) than in group with no anxiety disorders (n=217; M=10.29; SD=6.12; range: 0–28). Anxiety disorders were more prevalent in the clinical group (n=62; 36.04%) than in the non-clinical group (n=17; 13.7%). However, in both groups the mean SHAI point score obtained among subjects with anxiety disorders (clinical group: M=23.14, SD=11.29, range: 12–42; non-clinical group: M=16.04, SD=7.85, range: 11–37) was significantly higher (p<0,001) than in individuals with no symptoms of anxiety disorders (clinical group: M=13.39, SD=5.78, range: 3–28; non-clinical group: M=8.14, SD=5.11, range: 0–18).

As a next step, ROC analysis was performed to determine the threshold value of SHAI providing the highest sensitivity and specificity for

the diagnosis of health anxiety. Taking into account the current conceptualization of hypochondriasis as an anxiety disorder (health anxiety), the reference point used was a HAM-A diagnosis of anxiety disorders. The results were as follows: AUC=0.866, SE=0.024, 95% CI 0.81–0.91 (p<0.001). In the last stage of analysis, the sensitivity, specificity, and positive (PPP) and negative (NPP) predictive power were determined for each cut-off score of SHAI (Table 5).

Table 5. Sensitivity, specificity, positive (PPP) and negative (NPP) predictive power for selected SHAI cut-off scores: differentiating hypochondriasis from anxiety disorders

Cut-off score	Sensitivity (%)	Specificity (%)	PPP (%)	NPP (%)
1	2.4	100.0	69.5	0.00
15	61.0	94.0	82.4	82.0
18	72.0	84.1	86.0	67.0
20	79.3	78.0	89.3	61.9
21	82.9	72.5	90.4	57.6
22	85.4	69.8	91.4	56.0
23	86.6	62.1	91.1	50.7
24	90.2	58.2	93.0	49.3
25	90.2	52.7	92.3	46.3
26	92.7	47.8	93.5	44.4
27	95.1	44.5	95.3	43.6

DISCUSSION

SHAI has been adapted and validated among British [11], Canadian [21], American [22,23], Spanish [24], Iranian [25] and Hungarian [26] samples, and has become a popular measure among both clinicians and researchers. The original version of SHAI showed good reliability at Cronbach's α=0,92 [11]. Internal consistency was calculated in 15 clinical and non-clinical studies. The alpha coefficients for the 18-item SHAI ranged from 0.74 to 0.96 [27]. The Polish language version also demonstrated excellent reliability at Cronbach's α=0.91 in clinical samples and α=0.92 in healthy subjects (Table 1). Test-retest reliability of the SHAI was reported only in one study and its stability was r=0.87 (during a 3-week period), lower than in the present study.

A moderate relationship between anxiety (using HARS) and health anxiety was found. At this point it is important to again rely on the definition in the newly published DSM-5 that removed the term hypochondriasis from the nomenclature and replaced it with the diagnoses of illness anxiety disorder (hypochondriacal disorder in ICD-10) and somatic symptom disorder (somatization disorder in ICD-10). Hypochondriasis is relatively well defined and may correspond to the concept of health anxiety. However, this is not the anxiety disorder as defined in DSM-5 or ICD-10 as hypochondriasis involves assigning an affect meaning of somatic origin. For this reason, a correlation with HAM-A may be divergent rather than convergent measure of validity. To measure convergent validity, one of the scales of somatization referred to earlier might additionally be used.

Statistically significant positive correlations between the SHAI subscales were also observed. This suggests that the global health anxiety construct receives a relatively large contribution from the illness likelihood (IL) factor and a relatively smaller but nonetheless significant contribution from the negative consequences (NC) factor (Table 2).

The original two-factor SHAI structure was proposed by Salkovskis et al., with one factor assessing fear of illness and the other assessing the negative consequences of an illness [10].

The model was confirmed by Wheaton et al. [22]. Two remaining factor structure studies hint

at a possibility of other solutions. Abramowitz et al. identified a third factor, body vigilance (BV), that contains items related to monitoring the body [23]. A completely different factor structure was proposed by Alberts et al., who divided the illness likelihood subscale into two distinct subscales: fear of illness and thought intrusion. The authors suggested that the NC subscale should be removed, because it was not directly designed to measure health anxiety [21]. However, according to the cognitive–behavioral model, awareness of the negative consequences of an illness is an important element in the assessment of health anxiety. Perceiving a health threat is associated not only with an estimation of illness likelihood but also with an assessment of the severity of the disease, difficulty in coping with illness and inadequacy of medical services [28]. Factor analysis conducted in this study (Table 3) validated the original two-factor model and explained 48% and 49% of variation in clinical and non-clinical samples respectively. All factor loadings in the two-factor model were significant and ranged from 0.41 to 0.95. Furthermore, based on criteria recommended by Kline [29], results of confirmatory factor analysis provide an acceptable fit of the two-factor solution to empirical data (Table 4).

Salkovskis et al. suggested that in interpreting the results of testing with SHAI higher scores reflect higher health anxiety [11]. This approach does not allow to assess which results indicate a normal health anxiety level and which suggest a severe form of hypochondriasis. Several studies attempted to determine cut-off scores for the identification of a clinical form of hypochondriasis, but only Abramowitz et al. presented a clear and rigorous research on the appropriate use of cut-off scores to interpret the SHAI. A score over 27 points was reported as being most reliable for the identification of health anxiety, allowing to accurately distinguish hypochondriasis from other anxiety disorders [30]. Other researchers have proposed less stringent cut-off scores at 15 [31], 18 [32] and 20 points [33]. They did not provide sufficient information on how these scores were identified, however. The specificity and sensitivity values presented in Table 5 show that a cut-off score of 20 is optimal for the Polish language version of SHAI. This allows to correctly classify 79% of patients with hypo-

chondriasis and 78% of those with other anxiety disorders. A cut-off score of 27 points provides a correct diagnosis of hypochondriasis in 95% of patients, but is associated with a significant decrease in tool specificity. In addition, the obtained value of AUC=0.866 indicates an almost 87% probability that a randomly selected person with symptoms of an anxiety disorder has higher scores on SHAI than a person without symptoms of anxiety.

Given the sample contained a group of patients with cardiovascular diseases (worried about a real rather than an imaginary disease) it may seem that the scale measures somatic preoccupation, not theoretical hypochondriasis. According to Salkovskis et al. [11], the primary reason for developing the SHAI was to create a questionnaire of health anxiety that could be used in medical contexts, because most previous measures of health anxiety included items concerning the belief that one is physically ill, and the endorsement of such items resulted in elevated scores in individuals who were temporarily sick or diagnosed with a serious illness. The SHAI was designed to reduce this problem. Modifications, such as adding the statement "other than your existing disease", are made to items 5, 9, 11 and 12, and are useful in clinical samples diagnosed with one or more diseases, so that participant responses are not limited by an existing serious health condition (e.g. in the current study the modification was "As a rule,

I am not afraid that I have a serious illness [other than heart disease]").

Despite widespread application of SHAI, a Polish language version had not been created before. The results of the study on the psychometric properties of the scale confirmed a high reliability and accuracy of proposed solutions. However, the present study has some limitations. The first limitation is a short time period between the first and second measurement in the clinical group. This is the result of short-time hospitalizations. However, it was decided not to perform a repeat measurement by means of a telephone survey. This method reduces the anonymity of study participants and leads to the loss of original self-report properties of the tool, which could lead to false results (overestimation or underestimation). The choice of clinical group is justified by empirical researches on the

prevalence of health anxiety in various medical conditions. Elevated health anxiety was found in patients with multiple sclerosis [34], diabetes type I and II [35] and in women with early stage breast cancer [36]. Given the prevalence of anxiety among cardiac patients, selecting this group of patients seems to be well founded. Further research on the psychometric properties of SHAI among patients with hypochondria diagnosed according to the DSM-5 criteria, and a comparison of the results in this group with patients suffering from other anxiety disorders (e.g. obsessive–compulsive disorders and panic disorder) is required. In future research, the relationship of SHAI to other measures designed to assess health anxiety (e.g.HAQ and MIHT) should be carried out. For this purpose, Polish language versions of these tools are needed.

CONCLUSIONS

The Short Health Anxiety Inventory is a first Polish language tool to identify and assess the severity of hypochondriasis from the cognitive–behavioral perspective. Results presented in this study indicate excellent psychometric properties of the scale. Despite some limitations, it may be concluded that SHAI is a useful measure of identification and assessment of health anxiety in clinical and non-clinical samples, which can be applied both in clinical practice and in research.

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ANEKS

INWENTARZ LĘKU O ZDROWIE (SHAI)

Każda z poniższych pozycji składa się z czterech stwierdzeń. Proszę przeczytać dokładnie każde z nich a następnie wybrać to, które najlepiej opisuje Pana/Pani uczucia w ciągu ostatnich 6 miesięcy. Wyboru proszę dokonać poprzez zakreślenie odpowiedniej litery (a/b/c/d). Jeżeli więcej niż jedno stwierdzenie odnosi się do Pana/Pani osoby, proszę również je zakreślić.

1. a) nie martwię się o moje zdrowie.
   b) od czasu do czasu martwię się o moje zdrowie.
   c) poświęcam dużo mojego czasu martwiąc się o moje zdrowie
   d) poświęcam większość mojego czasu martwiąc się o moje zdrowie.

2. a) odczuwam dolegliwości bólowe rzadziej niż inne osoby w moim wieku.
   b) odczuwam dolegliwości bólowe tak samo często jak inne osoby w moim wieku.
   c) odczuwam dolegliwości bólowe częściej niż inne osoby w moim wieku.
   d) odczuwam dolegliwości bólowe przez cały czas.

3. a) zwykle nie mam świadomości doznań i zmian zachodzących w moim ciele
   b) czasami mam świadomość doznań i zmian zachodzących w moim ciele
   c) często mam świadomość doznań i zmian zachodzących w moim ciele
   d) stale mam świadomość doznań i zmian zachodzących w moim ciele

4. a) oparcie się myślom o chorobie nigdy nie stanowi dla mnie problemu.
   b) przez większość czasu potrafię oprzeć się myślom o chorobie.
   c) staram się oprzeć myślom o chorobie, ale często nie jestem w stanie tego zrobić.
   d) myśli o chorobie są tak silne, że już dłużej nawet nie staram się im oprzeć.

7. a) zwykle nie obawiam się, że mam poważną chorobę.
   b) czasami obawiam się, że mam poważną chorobę.
   c) często obawiam się że mam poważną chorobę.
   d) zawsze obawiam się że mam poważną chorobę.

6. a) nie wyobrażam sobie siebie będącego chorym (nie mam takich myśli)
   b) od czasu do czasu wyobrażam sobie siebie będącego chorym
   c) często wyobrażam sobie siebie będącego chorym

d) ciągle wyobrażam sobie siebie będącego chorym

7. a) nie mam żadnych trudności, aby odciągnąć moje myśli od myśli na temat mojego zdrowia.

   b) czasami mam trudność, aby odciągnąć moje myśli od myśli na temat mojego zdrowia.

   c) często mam trudność, aby odciągnąć moje myśli od myśli na temat mojego zdrowia.

   d) nic nie potrafi odciągnąć moich myśli od myśli na temat mojego zdrowia.

8. a) odczuwam długotrwałą ulgę, jeżeli mój lekarz powie mi, że nic mi nie dolega

   b) początkowo odczuwam ulgę, ale obawy czasami później wracają

   c) początkowo odczuwam ulgę, ale obawy zawsze potem wracają

   d) nie odczuwam ulgi, jeżeli mój lekarz powie mi, że nic mi nie dolega

9. a) jeżeli słyszę o jakiejś chorobie, nigdy nie myślę, że ją mam.

   b) jeżeli słyszę o jakiejś chorobie, czasem myślę, że ją mam.

   c) jeżeli słyszę o jakiejś chorobie, często myślę, że ją mam.

   d) jeżeli słyszę o jakiejś chorobie, zawsze myślę, że ją mam.

10. a) jeśli doświadczam doznań lub zmian zachodzących w moim ciele, rzadko zastanawiam się co to oznacza

    b) jeśli doświadczam doznań lub zmian zachodzących w moim ciele, często zastanawiam się co to oznacza

    c) jeśli doświadczam doznań lub zmian zachodzących w moim ciele, zawsze zastanawiam się co to oznacza

    d) jeśli doświadczam doznań lub zmian zachodzących w moim ciele, muszę wiedzieć co to oznacza

11. a) czuję, że ryzyko rozwinięcia się u mnie poważnej choroby jest bardzo niskie.

    b) czuję, że ryzyko rozwinięcia się u mnie poważnej choroby jest dość niskie.

    c) czuję, że ryzyko rozwinięcia się u mnie poważnej choroby jest umiarkowane.

    d) czuję, że ryzyko rozwinięcia się u mnie poważnej choroby jest wysokie

12. a) Nigdy nie myślę, że mam poważną chorobę.

    b) Czasami myślę, że mam poważną chorobę.

    c) Często myślę, że mam poważną chorobę.

    d) Zawsze myślę, że mam poważną chorobę.

13. a) jeśli zauważam niewyjaśnione doznania cielesne, nigdy nie mam trudności, aby myśleć wtedy o innych rzeczach.

    b) jeśli zauważam niewyjaśnione doznania cielesne, czasami trudno jest mi myśleć o innych rzeczach

    c) jeśli zauważam niewyjaśnione doznania cielesne często trudno jest mi myśleć o innych rzeczach

    d) jeśli zauważam niewyjaśnione doznania cielesne, zawsze trudno jest mi myśleć o innych rzeczach

14. a) moja rodzina/przyjaciele powiedzieliby, że nie martwię się wystarczająco o moje zdrowie.

    b) moja rodzina/przyjaciele powiedzieliby, że mam normalne nastawienie do mojego zdrowia.

    c) moja rodzina/przyjaciele powiedzieliby, że za bardzo martwię się o swoje zdrowie.

    d) moja rodzina/przyjaciele powiedzieliby, że jestem hipochondrykiem.

Odpowiadając na poniższe pytania proszę pomyśleć, co mogłoby się stać, gdyby Pan/Pani miał poważną chorobę (np. choroba serca, nowotwór, stwardnienie rozsiane). Oczywiście nie wiemy na pewno co się wtedy wydarzy, dlatego proszę określić najprawdopodobniejszy rozwój zdarzeń opierając się na tym, co dotychczas Pan/Pani wie o swojej osobie oraz na wiedzy ogólnej dotyczącej poważnych chorób.

15. a) jeśli miałbym poważną chorobę, nadal byłbym w stanie w dużym stopniu cieszyć się rzeczami w moim życiu

    b) jeśli miałbym poważną chorobę, byłbym w stanie tylko trochę cieszyć się rzeczami w moim życiu.

    c) jeśli miałbym poważną chorobę, byłbym prawie zupełnie niezdolny cieszyć się rzeczami w moim życiu

    d) jeśli miałbym poważną chorobę, byłbym całkiem niezdolny cieszyć się rzeczami w moim życiu

16. a) jeśli rozwinęłaby się u mnie poważna choroba, to jest duże

prawdopodobieństwo, że współczesna medycyna będzie mnie w stanie wyleczyć.

b) jeśli rozwinęłaby się u mnie poważna choroba, to istnieje umiarkowane prawdopodobieństwo, że współczesna medycyna będzie mnie w stanie wyleczyć

c) jeśli rozwinęłaby się u mnie poważna choroba, to jest bardzo małe prawdopodobieństwo, że współczesna medycyna będzie mnie w stanie wyleczyć

d) jeśli rozwinęłaby się u mnie poważna choroba, to wykluczone, że współczesna medycyna będzie mnie w stanie wyleczyć.

17. a) poważna choroba zrujnowałaby niektóre aspekty mojego życia.

b) poważna choroba zrujnowałaby wiele aspektów mojego życia.

c) poważna choroba zrujnowałaby niemal każdy aspekt mojego życia.

d) poważna choroba zrujnowałaby każdy aspekt mojego życia.

18. a) jeśli miałbym poważną chorobę, nie czułbym, że straciłem moją godność.

b) jeśli miałbym poważną chorobę, czułbym, że straciłem trochę mojej godności.

c) jeśli miałbym poważną chorobę, czułbym, że straciłem sporo mojej godności

d) jeśli miałbym poważną chorobę, czułbym, że całkowicie straciłem moją godność.