

Are you a health care and information seeker or avoider? A new assessment tool

Chrysanthi Leonidou<sup>1,2</sup> and Georgia Panayiotou<sup>1,3</sup>

<sup>1</sup> Department of Psychology, University of Cyprus

<sup>2</sup> Bank of Cyprus Oncology Centre

<sup>3</sup> Center for Applied Neuroscience, University of Cyprus

Author Note:

Compliance with ethical standards:

Disclosure of potential conflicts of interest: The authors declare no conflict of interest.

Research involving Human Participants and/or Animals: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. The study was approved by the National Bioethics Committee (Protocol Number: EEBK/EΠ/2017/12).

Informed consent: Informed consent has been provided by all study participants.

Funding: Not applicable, no funding was received for this study.

## Abstract

Healthcare seeking and avoidance behaviors, when applied maladaptively may negatively impact individuals' functioning and the public healthcare system. This study describes the development of the first tool to assess these behaviors. 359 university students (279 females, 80 males; age *range*=17-45) completed the new Healthcare Behaviors Questionnaire and measures of illness anxiety. Results supported a six- (Care Seeking, Information Seeking, Asking for Care, Care Avoidance, Information Avoidance and Postponing Care) and a two-factor structure (Healthcare Seeking and Healthcare Avoidance) of the tool and provided evidence for its good psychometric properties (internal consistency and construct validity). There were no gender, living place and medical diagnosis differences in healthcare seeking and avoidance behaviors. Healthcare Behaviors Questionnaire factors were significant predictors of increased illness anxiety. The factor structure and psychometric properties of the tool remain to be confirmed in other samples, including clinical and medical populations, to support its clinical and research utility.

**Keywords:** *Healthcare seeking; Healthcare avoidance; Assessment; Illness anxiety; Health behavior.*

Are you a health care and information seeker or avoider? A new assessment tool

Healthcare seeking is the behavior employed to find remedy for a perceived health issue or illness (MacKian, 2003) and it is more likely when the symptoms are perceived as severe (Larkey, Hecht, Miller, & Alatorre, 2001). However, even if medical attention is necessary, healthcare avoidance, i.e. disengagement from or delay in obtaining healthcare, is oftentimes observed. When persistent and recurrent, healthcare seeking and avoidance have devastating consequences on personal wellbeing (Byrne, 2008) and on the healthcare system. Repeated unnecessary healthcare seeking increases healthcare costs for the individual and the public healthcare sector and has been linked to difficulties in interpersonal relationships, employment status and education. On the other hand, healthcare avoidance worsens disease prognosis, treatment options and response to treatment. Delayed healthcare is more probable to lead to radical treatments, more operations, hospital stays, institutionalization, and therefore, more stress and costs for the healthcare system (Kannan & Veazie, 2014). For these reasons, research on healthcare seeking and avoidance behaviors has major implications for individual wellbeing, and for public health, morbidity, illness progression and its consequences, and health policy (Afolabi, Daropale, Irinoye, & Adegoke, 2013; Kannan & Veazie, 2014). This study aimed to develop a tool to assess healthcare seeking and avoidance behaviors, which, to our knowledge, is not currently available.

### **Correlates of healthcare behaviors**

Existing literature attempted to understand why people seek or avoid healthcare. Healthcare avoidance has been linked to practical barriers such as financial difficulties, limited knowledge about and access to healthcare facilities (Afolabi et al., 2013; Baker, Shapiro, & Schur, 2000; DeVoe, Fryer, Phillips, & Green, 2003; El Kahi, Abi Rizk, Hlais, & Adib, 2012; Kasper, Giovannini, & Hoffman, 2000; Smith et al., 2018; Tipirneni et al., 2018; Ward, Mertens, & Thomas, 1997; Ye, Shim, & Rust, 2012). Barriers noted within the patient-

healthcare provider relationship were perceived inability to interact effectively to obtain a desired health outcome and beliefs of how patients will be treated by healthcare professionals, including confidentiality, stigma and rejection (Ballantyne, Gignac, & Hawker, 2007; Byrne, 2008; Cook, Ramseyer Winter, & O'Neill, 2020; El Kahi et al., 2012; Leyva, Taber, & Trivedi, 2020; Moore et al., 2004; Tromp et al., 2005). In addition, medical care seeking has emotional costs including fear of a potential diagnosis of serious illness and of death, and can be complicated by lack of social support and self-efficacy in coping with the anticipated health threat (Addison, 2017; Howell & Shepperd, 2017; Hua & Howell, 2019; Kannan & Veazie, 2014; Lauver, 1992; St. Jean, Jindal, & Liao, 2017; Waring, McManus, Amante, Darling, & Kiefe, 2018). Severe psychological distress has been associated with both the tendency to avoid health services, preventive care and health information as a way to avoid emotional costs (Leyva et al., 2020; Ye et al., 2012), and with higher total expenditures and use of health services (Lauver, 1992) and repeated health information seeking (McMullan, Berle, Arnáez, & Starcevic, 2019; Poel, Baumgartner, Hartmann, & Tanis, 2016). This suggests that in some cases medical care and information seeking and health information avoidance potentially serve similar functions, i.e. to alleviate stress elicited by health threats.

### **Illness anxiety and healthcare behaviors**

Although such behaviors likely vary on a continuum in the general population, severe illness anxiety is highly associated with the extremes of these behaviors (Leonidou & Panayiotou, 2018; Warwick & Salkovskis, 1990). Illness anxiety is a preoccupation with having or acquiring a severe medical disease despite appropriate medical reassurance (Rachman, 2012). For individuals with severe illness anxiety, healthcare seeking functions as a strategy to gain reassurance that everything is going well with their health, which temporarily reduces stress. Similarly, healthcare avoidance helps to avoid encountering

threatening medical information and examination results, which keeps stress at low levels.

This reinforces patient's fears because they do not obtain information that would modify their representation of illness and perception of symptoms (Abramowitz & Moore, 2007; Fergus & Valentiner, 2012; Olatunji, Deacon, Abramowitz, & Valentiner, 2007).

On this basis, the DSM-5 (American Psychiatric Association, 2013) proposed the care seeking and the care avoidant type specifiers of the Illness Anxiety Disorder, stressing the significance of these behaviors in defining this disorder. Most patients with illness anxiety diagnosis fluctuate between seeking and avoiding care (61%), whereas "pure" care-seeking (25%) and care-avoidant subtypes are less common (14%) (Newby, Hobbs, Mahoney, Wong, & Andrews, 2017). The DSM-5 working group on Somatic Symptom Disorders (personal communication, September 2014) suggested the subtypes based on clinical experience; empirical evidence is inadequate to validate or invalidate their presence, especially in the absence of validated ways to assess these behaviors. Therefore, a new assessment tool has important implication with regards to research in the general population and for the more accurate diagnosis of illness anxiety disorder, with regards to the DSM-5 specifiers.

### **Existing assessment methods for healthcare behaviors**

In existing studies, researchers asked participants to report the frequency with which they sought medical care or information over a specified period of time (e.g. during the last 1-3 months; Afolabi et al., 2013; Kannan & Veazie, 2014; Lee et al., 2013; Ye et al., 2012). In spite of providing a snapshot of the frequency of these behaviors, this data collection approach does not help to uncover the function of healthcare seeking. Number of visits could be due to a chronic medical condition or as a preventive routine check-up or to alleviate stress elicited by a perceived health threat. Also, this approach does not clearly capture individual differences, where these behaviors form a preferred pattern of dealing with symptoms. To address these research questions, and better serve the needs of individuals who engage in

extremes of these behaviors in the context of disorders like illness anxiety, there is a clear need for standardized measures of healthcare seeking and avoidance behaviors.

### **Current study**

To our knowledge, and according to the DSM-5 working group on Somatic Symptom Disorders (personal communication, September 2014), there is no other instrument that assesses medical care and information seeking/avoidance behaviors. Therefore, the Healthcare Behaviors Questionnaire is developed to address this gap. The need to develop this scale had its origin in the need to find ways to assess the Illness Anxiety Disorder specifiers. It can be applicable, however, to the general population because it is developed to assess healthcare seeking and avoidance as general behavioral patterns triggered when one has to deal with symptoms perceived as health-threatening. Healthcare behaviors were defined as any behaviors undertaken to avoid or seek remedy for a symptom or illness from various healthcare sources, including healthcare providers and sources such as articles, books, radio, T.V. and the internet. This study describes the questionnaire development procedure (item construction and analysis) and presents its factor structure, psychometric properties (internal consistency, construct validity) and descriptive characteristics. It also examines whether healthcare seeking and avoidance can predict illness anxiety assessed by well-established measures. The confirmation of factor structure and psychometric properties of the illness anxiety measures in the Greek language is also reported in this study.

## **Method**

### **Sample**

A convenience sample of 359 university students (279 females, 80 males;  $M_{age}=21.20$ ,  $SD=3.08$ ) was recruited through announcements about an online screening questionnaire for ongoing experimental studies in psychology classes they were attending and received bonus course credit for their participation.

## Measures

Participants completed the Healthcare Behaviors Questionnaire (HCBQ; see below for its development and characteristics) and the Healthcare Seeking and Utilization Scale (HCSUS), among other measures assessing psychological symptoms not relevant to this study. The HCSUS is a 7-item self-report measure constructed to assess the number of attempts to seek and utilize healthcare resources over the past month, including phone calls to healthcare professionals, visits in non-emergent and emergent healthcare settings, prescriptions received, days in inpatient treatment and hours per week spent searching for medical information. It demonstrated adequate internal consistency and utility as a measure of behavioral illness anxiety symptoms (Lee et al., 2013).

Two measures of illness anxiety were also completed to test whether the HCBQ scores predict illness anxiety. The Short Health Anxiety Inventory (SHAI; Salkovskis, Rimes, Warwick, & Clark, 2002) translated in the Greek language (Karademas, Christopoulou, Dimostheni, & Pavlu, 2008) is an 18-item questionnaire that assesses illness anxiety based on the cognitive-behavioral model (Warwick & Salkovskis, 1990) with excellent psychometric properties (Hedman et al., 2015). Each item consists of four statements that correspond to a 4-point Likert scale (score range: 0-54). It provides a total score and scores on two factors: Health Anxiety and Negative Consequences. Confirmatory factor analysis based on the data collected from this study's sample provided evidence that between one-, two- and three-factor models, the SHAI model with the best fit was the two-factor model with three modifications for covariance between items 10 and 13, 5 and 12, 7 and 8:  $\chi^2=240.003$ ,  $df=131$ ,  $p<.001$ ,  $CFI=.949$ ,  $RMSEA=.048$  [.039, .058],  $SRMR=.0454$  (see Figure S1 in Supplementary material; Leonidou & Panayiotou, 2016).

The Illness Attitudes Scales (IAS; Kellner, 1987) translated in Greek (Author & Author, 2017) is a 27-item scale, which assesses fears, attitudes and beliefs associated with

hypochondriacal concerns and abnormal illness behaviour on a 5-point Likert scale (score range: 0-108), with very good psychometric properties (Hedman et al., 2015). It gives a total score, and scores of nine subscales: Worry about illness, Concerns about pain, Health habits, Hypochondriacal beliefs, Fear of death, Disease phobia, Bodily preoccupations, Treatment experience, Effects of symptoms. Confirmatory factor analysis based on the data collected from this study's sample provided evidence that between the one-, four- and nine-factor models, the IAS model with the best fit was the nine-factor model with four modifications for the covariance between items 5 and 6, 3 and 14, 15 and 16, and a cross-loading of item 5 on the Health Habits subscale:  $\chi^2=619.193$ ,  $df=284$ ,  $p<.001$ ,  $CFI=.921$ ,  $RMSEA=.058$  [.052, .064],  $SRMR=.0603$  (see Figure S2 in Supplementary material; Leonidou & Panayiotou, 2017).

### **Item construction**

The HCBQ items were developed based on existing literature about healthcare seeking and avoidance behaviors mainly from studies in the field of health psychology and illness anxiety. Some items were adapted from the Illness Attitudes Scales (Kellner, 1987) and questions used in previous studies assessing healthcare seeking and avoidance behaviors (Afolabi et al., 2013; Kannan & Veazie, 2014; Lee et al., 2013; Ye et al., 2012). More items were developed based on the initial items following published guidelines for item construction (Rattray & Jones, 2007; Siniscalco & Auriat, 2005). The initial set included 32 questions that represent each hypothesized domain, i.e. seeking vs avoidance. An expert in the field of clinical psychology reviewed the items, suggested changes regarding wording and identified five items that were repetition of other items, hence those items were deleted. This resulted in 27 items, 13 of them were assessing health care and information avoidance and 14 were assessing health care and information seeking behaviors. The items were structured by grouping the items of each category of behaviors together. A five-point Likert scale from 0 to



4 was deemed appropriate to assess the frequency of behaviors presented by each item:

0=never, 1=rarely, 2=sometimes, 3=often, 4=most of the time.

### **Item analysis**

An item analysis (Rattray & Jones, 2007) was carried out and results showed that most participants responded by endorsing the middle options (“rarely”, “sometimes”, “often”) in most items. There were not >80% of responses in one option in any of the items and no items receiving zero endorsement, which are criteria used to question the validity of items. However, on items 21-23, 72-77% of participants endorsed the option “never” and only very few participants endorsed the options “often” and “most of the time”. There were some items for which endorsement of the two extreme options was lower <20%: participants endorsed less the options “often” and “most of the time” on items 1-4, 6-10, 15-16, 18-20, 24-27; and endorsed less the option “never” on items 11-13. It was expected that a sample of healthy in their majority young adults would endorse less the two extreme options than the middle options, on the scale assessing frequency of healthcare seeking/avoidance behaviors, therefore, no items were excluded based on the item analysis results.

### **Exploratory factor analysis**

Exploratory factor analysis was conducted using the Principal Axis Factoring extraction method with Direct Oblimin oblique rotation. Sampling adequacy was supported by KMO=.79 (KMO>.5), with individual values >.715. The Determinant=.00003124 (Determinant>.00001) and no inter-item correlations above .80 supported absence of multicollinearity. The Bartlett’s test=.35,  $p<.001$  supported the presence of correlations between some groups of items. After rotation 5% of nonredundant residuals had absolute values above 0.05. The mean communality of items with factors was .513.

To test the suggested by the DSM sub-types of care seeking and care avoidance, a second exploratory factor analysis was conducted by setting the limit for two factors to be

extracted, using the same extraction, rotation, and parametric criteria as in the first exploratory factor analysis.

### **Psychometric properties analysis**

Internal consistency of the sub-scales was tested by Cronbach's alpha. Construct validity was tested by Pearson's correlations between HCBQ subscales and HCSUS questions. T-tests were conducted to investigate differences on HCBQ scores between males and females, participants who lived in urban and rural areas, and participants who reported a medical diagnosis and those who did not. Pearson's correlation tested the association between HCBQ scores and age. Regression models were analyzed to test whether the HCBQ scores (predictor variables) can predict illness anxiety (outcome) total score and scores on illness anxiety dimensions (SHAI 2 subscales; IAS 9 subscales).

## **Results**

### **Factor structure**

Seven factors were extracted from EFA explaining 51.35% of variance, and the factor loadings after rotation by factor are presented in Table S1 (Supplementary material). Factor 4 did not reflect an interpretable construct therefore it was not included in further analyses. Therefore, six factors were retained as interpretable (variance explained after removing Factor 4: 45.71%): Information Avoidance (5 items), Information Seeking (3 items), Care Avoidance (3 items), Care Seeking (3 items), Asking for Care (4 items), Postponing Care (3 items). Each item had its highest loading on the targeted factor in most of the cases; two items loaded on two factors and these cross-loadings were meaningful: Item 18 loaded on both Care Avoidance and Care Seeking (negative value), Item 7 loaded on both Care Seeking and Information Seeking. It was decided that Item 7 was more relevant to Information Seeking, and Item 18 was more relevant to Information Avoidance (loading of item 18 on this

factor: .205) despite the high loading on the two other factors, therefore the factors were calculated as such.

Pearson's correlations between the HCBQ factors (Table 1) showed that Information Avoidance, Care Avoidance and Postponing Care showed positive correlations and, in most cases, showed negative correlations with Information Seeking, Care Seeking and Asking for Care, which were also positively correlated.

The second exploratory factor analysis provided preliminary support for the two-factor structure, explaining a lower percentage of the variance: 32.43%, compared to the first analysis. Items describing Information Avoidance, Care Avoidance and Postponing Care loaded on factor 1 and items describing Information Seeking, Care Seeking and Asking for Care loaded on factor 2. Since the six-factor model explained greater percentage of variance, it was the model that was further tested for psychometric properties and descriptive characteristics for the purpose of this study.<sup>1</sup>

### **Internal consistency**

The corrected item-total correlations for each factor ranged between  $r=.325$  and  $r=.747$ . Cronbach's alpha support adequate internal consistency for each factor (.69-.85; Table 1). Internal consistencies for the two-factor model were  $\alpha=.79$  for Healthcare seeking and  $\alpha=.82$  for Healthcare avoidance; for the overall scale  $\alpha=.75$ .

### **Construct validity**

Results of construct validity tests (Table 2) showed that Information Avoidance was negatively associated, while Information Seeking was positively associated, with time spent on online searching for medical information during the last month. Care Seeking and Asking

---

<sup>1</sup> Findings that supported the two-factor model and the correlations between the HCBQ sub-factors led to the hypothesis that a first-order and a second-order model of Information Avoidance, Care Avoidance and Postponing Care loading on Healthcare avoidance and Information Seeking, Care Seeking and Asking for Care loading on Healthcare seeking may be a better structure of the HCBQ. We preliminary tested this hypothesis with an exploratory factor analysis of the six HCBQ sub-factors and results showed that the six factors load on the two factors as described above and explain 56.32% of the variance.

for Care were positively associated with most of the questions referring to healthcare visits etc. Unexpectedly, Care Avoidance and Postponing of Care did not show negative associations with these items.

### **Descriptive characteristics**

Means, standard deviations and range of scores are presented in Table 1. Results showed no gender and living place group differences. In addition, there was no difference on HCBQ scores between participants who reported a medical diagnosis and those who did not (Tables S2, S3 & S4, Supplementary material). Age had a weak positive correlation with Information Seeking,  $r=.113$ ,  $p=.03$ ; age was not correlated with other factors.

### **HCBQ predictors of illness anxiety**

Regression results (Table 3) showed that high scores on Care Seeking significantly predicted higher SHAI total and Health Anxiety score, IAS total, Worries about Illness, Body Preoccupations, Concerns about Pain, Effects of Symptoms, Treatment Experience and Health Habits. Care Avoidance did not predict illness anxiety. Information Seeking was a significant positive predictor of SHAI total and Health Anxiety score, IAS total, Worry about Illness and Body Preoccupations. Information Avoidance was a significant positive predictor of SHAI total and Health Anxiety score, IAS total, Worry about Illness, Body Preoccupations, Effects of Symptoms, Disease Phobia and Thanatophobia. Asking for Care significantly predicted higher IAS total, Hypochondriacal Beliefs and Health Habits. Less Postponing of Care predicted higher IAS total score and Effects of Symptoms. HCBQ factors were not significant predictors of the SHAI Consequences.

## **Discussion**

Extreme healthcare seeking and avoidance have devastating consequences on individuals' functioning and on the public healthcare system, when applied repeatedly to alleviate stress elicited by perceived health threats. This study addressed the gap in the related

research and clinical field by providing a first tool, the HCBQ, to assess these behaviors. Findings suggest that it is an appropriate tool to assess medical care and information seeking and avoidance behaviors both in the general population and among individuals who present illness anxiety, who are more likely to maladaptively employ such behaviors.

Exploratory factor analyses on this study's sample provide support for a six and a two-factor structure. The two-factor structure is consistent with the specifiers of the Illness Anxiety Disorder in DSM-5, i.e. care seeking and care avoidance. The six-factor structure identifies specific behavioral patterns within the two sub-types e.g. information seeking and asking for care within the care seeking subtype and information avoidance and postponing care within the care avoidance subtype. We suggest a first- and second-order model structure with Care seeking, Information seeking and Asking for care loading on the Healthcare seeking factor and Care avoidance, Information avoidance and Postponing care loading on the Healthcare avoidance factor. The suggested factor structure received preliminary support from this study's results and remains to be confirmed using Confirmatory Factor Analysis in a future study. Findings did not support an one-factor structure and there are only moderate associations between the two behavioral categories, which indicates that healthcare seeking and avoidance represent distinct moderately correlated behaviors. It is possible that one may score high on both healthcare seeking and healthcare avoidance subscales, e.g. they may search for medical information but avoid healthcare.

The psychometric properties of the tool appear to be very good in this first investigation. Adequate to very good internal consistency has been supported for HCBQ subscales. Correlations between information seeking and avoidance and time spent on searching for medical information online and Care Seeking and Asking for Care and questions about healthcare visits during the last month provide evidence in support of the construct validity of the tool. However, Care Avoidance and Postponing of Care were not

correlated with frequency of healthcare visits and information seeking. This finding supports our initial concern that questions used to assess the frequency of healthcare visits over a specified period of time (e.g. Afolabi et al., 2013; Kannan & Veazie, 2014; Lee et al., 2013; Ye et al., 2012) may not capture healthcare seeking and avoidance as behavioral response patterns to perceived health threats. This appears to be particularly observed for healthcare avoidance behaviors, i.e. less healthcare visits, hospitalizations, medical tests, and prescriptions do not necessarily mean that one avoids or delays seeking healthcare. Lower frequency of such behaviors over a specified period of time may mean either better health hence no need for healthcare especially among young adults as in this study's sample; sufficient insight to realize that their anxiety is unrealistic and their symptoms may not require medical attention; excessive fear that medical information and assessment would confirm their worst fears. The latter two can be assessed by the HCBQ.

Moreover, with regards to demographics, results supported no gender difference in HCBQ factors, in contrast to existing evidence that young women were more likely to seek healthcare than young men (El Kahi et al., 2012). Less healthcare seeking was marginally associated with younger age in a previous study (El Kahi et al., 2012), while in this study there was a weak association between information seeking and younger age. Such findings should be replicated in samples with a wider age range relative to our young adults' sample. In addition, no living place differences in healthcare seeking and avoidance were observed. Living place may not play a role in a small country, where medical facilities should be within a short driving distance in most cases.

Furthermore, findings of this study provide preliminary evidence, since the sample was non-clinical, with regards to the Illness Anxiety Disorder specifiers in DSM-5. As expected by the diagnostic criteria (American Psychiatric Association, 2013) and the cognitive behavioral model of illness anxiety (Warwick & Salkovskis, 1990), increased care

and information seeking and less postponing of care predicted higher illness anxiety. It is also interesting that more actively asking for medical care and examinations specifically predicted hypochondriacal beliefs, i.e. beliefs that one has a disease despite appropriate medical assessment and reassurance (Kellner, 1987; Warwick & Salkovskis, 1990). However, there is no evidence that care avoidance may predict illness anxiety, which comes into contrast with the existing theoretical premise that illness anxious individuals may avoid healthcare to avoid confirming their fears (Rachman, 2012). On the other hand, information avoidance did predict illness anxiety, which may suggest that individuals who score high on illness anxiety tend to avoid medical information but they do not avoid healthcare if a symptom worries them. Addison (Addison, 2017) suggested that medical information avoidance may be a situation-dependent and not a dispositional behavior. These hypotheses should be tested in clinical samples. A cluster analysis would address whether the suggested subtypes are distinct. In addition, qualitative research is necessary to investigate the situational nature of such behaviors based on individuals' experiences.

A limitation of this study is that a Confirmatory Factor Analysis that would have showed the HCBQ model with the best fit was omitted as it would be best accomplished on a separate sample. It is a step that remains to be completed in future replication. The nonclinical sample of young, healthy in their majority adults, could have been also noted as a limitation of this study with regards to the investigation of the distinct subtypes of Illness Anxiety Disorder. However, the sample of this study was appropriate for the purpose of the development of the HCBQ as a tool that could be used to assess healthcare seeking and healthcare avoidance as behavioral patterns. This received further support by results that showed no difference on the HCBQ factors between participants who reported a medical diagnosis and those who did not.

This study is the first effort in developing a tool to assess healthcare seeking and avoidance behaviors. The suggested factor structure and psychometric properties of the HCBQ support its utility to identify behavioral tendencies for healthcare seeking and avoidance in a nonclinical sample of young adults. Follow up studies should replicate findings in other population groups so that there is further support for the clinical and research utility of the tool.



## References

- Abramowitz, J. S., & Moore, E. L. (2007). An experimental analysis of hypochondriasis. *Behaviour Research and Therapy*, 45(3), 413–424.  
<https://doi.org/10.1016/j.brat.2006.04.005>
- Addison, C. V. (2017). The issue of avoidance : information avoidance in the context of personal health concerns. <https://doi.org/10.14288/1.0354265>
- Afolabi, M. O., Daropale, V. O., Irinoye, A. I., & Adegoke, A. A. (2013). Health-seeking behaviour and student perception of health care services in a university community in Nigeria. *Health*, 05(05), 817–824. <https://doi.org/10.4236/health.2013.55108>
- American Psychiatric Association. (2013). *Diagnostic and Statistical Mannual of Mental Disorders (DSM-5)* (5th ed.). Washington, D.C.: American Psychiatric Publishing.  
<https://doi.org/10.1080/09515070801936578>
- Baker, D. W., Shapiro, M. F., & Schur, C. L. (2000). Health insurance and access to care for symptomatic conditions. *Archives of Internal Medicine*, 160(9), 1269–1274.  
<https://doi.org/10.1001/archinte.160.9.1269>
- Ballantyne, P. J., Gignac, M. A. M., & Hawker, G. A. (2007). A patient-centered perspective on surgery avoidance for hip or knee arthritis: Lessons for the future. *Arthritis & Rheumatism*, 57(1), 27–34. <https://doi.org/10.1002/art.22472>
- Byrne, S. K. (2008). Healthcare avoidance: A critical review. *Holistic Nursing Practice*, 22(5), 280–292. <https://doi.org/10.1097/01.HNP.0000334921.31433.c6>
- Cook, M., Ramseyer Winter, V., & O'Neill, E. A. (2020). Body Appreciation and Health Care Avoidance: A Brief Report. *Health & Social Work*, 45(1), 47–53.  
<https://doi.org/10.1093/hsw/hlz036>
- DeVoe, J. E., Fryer, G. E., Phillips, R., & Green, L. (2003). Receipt of preventive care among adults: insurance status and usual source of care. *American Journal of Public Health*,

- 93(5), 786–791. <https://doi.org/10.2105/ajph.93.5.786>
- El Kahi, H. a, Abi Rizk, G. Y., Hlais, S. a, & Adib, S. M. (2012). Health-care-seeking behaviour among university students in Lebanon. *Eastern Mediterranean Health Journal*, 18(6), 598–606.
- Fergus, T. A., & Valentiner, D. P. (2012). The affective and cognitive dimensions of health anxiety are associated with different orientations to health threat. *Journal of Cognitive Psychotherapy*, 26(1), 34–42. <https://doi.org/10.1891/0889-8391.26.1.34>
- Hedman, E., Lekander, M., Ljótsson, B., Lindefors, N., Rück, C., Andersson, G., & Andersson, E. (2015). Optimal cut-off points on the health anxiety inventory, illness attitude scales and whiteley index to identify severe health anxiety. *PLoS ONE*, 10(4), 1–12. <https://doi.org/10.1371/journal.pone.0123412>
- Hedman, E., Ljótsson, B., Andersson, E., Andersson, G., Lindefors, N., Rück, C., ... Lekander, M. (2015). Psychometric properties of Internet-administered measures of health anxiety: An investigation of the Health Anxiety Inventory, the Illness Attitude Scales, and the Whiteley Index. *Journal of Anxiety Disorders*, 31, 32–37. <https://doi.org/10.1016/j.janxdis.2015.01.008>
- Howell, J. L., & Shepperd, J. A. (2017). Social exclusion, self-affirmation, and health information avoidance. *Journal of Experimental Social Psychology*, 68, 21–26. <https://doi.org/10.1016/j.jesp.2016.05.005>
- Hua, J. N., & Howell, J. (2019). *Coping Self-Efficacy Influences Health Information Avoidance*. University of California Merced.
- Kannan, V. D., & Veazie, P. J. (2014). Predictors of avoiding medical care and reasons for avoidance behavior. *Medical Care*, 52(4), 336–345. <https://doi.org/10.1097/MLR.0000000000000100>
- Karademas, E. C., Christopoulou, S., Dimostheni, A., & Pavlu, F. (2008). Health anxiety and

cognitive interference: Evidence from the application of a modified Stroop task in two studies. *Personality and Individual Differences*, 44(5), 1138–1150.

<https://doi.org/10.1016/j.paid.2007.11.007>

Kasper, J. D., Giovannini, T. A., & Hoffman, C. (2000). Gaining and losing health insurance: Strengthening the evidence for effects on access to care and health outcomes. *Medical Care Research and Review*, 57(3), 298–325.

<https://doi.org/10.1177/107755870005700302>

Kellner, R. (1987). *Abridged manual of the illness attitude scales*. New Mexico: University of New Mexico, Department of Psychiatry, School of Medicine.

Larkey, L. K., Hecht, M. L., Miller, K., & Alatorre, C. (2001). Hispanic Cultural Norms for Health-Seeking Behaviors in the Face of Symptoms. *Health Education & Behavior*, 28(1), 65–80. <https://doi.org/10.1177/109019810102800107>

Lauver, D. (1992). A Theory of Care-seeking Behavior. *Image: The Journal of Nursing Scholarship*, 24(4), 281–288. <https://doi.org/10.1111/j.1547-5069.1992.tb00734.x>

Lee, H., Turkel, J. E., Cotter, S. P., Milliken, J. M., Cogle, J., Goetz, A. R., & Lesnick, A. M. (2013). Attentional bias toward personally relevant health-threat words. *Anxiety, Stress & Coping*, 26(5), 493–507. <https://doi.org/10.1080/10615806.2012.713474>

Leonidou, C. & Panayiotou, G. (2018). How do illness-anxious individuals process health-threatening information? A systematic review of evidence for the cognitive-behavioral model. *Journal of Psychosomatic Research*, 111, 100-115.

Leonidou, C. & Panayiotou, G. (2016). Assessing health anxiety with the Greek SHAI: Psychometric properties and identification of correlates and predictors. *European Health Psychologist*, 18(S), 526.

Leonidou, C. & Panayiotou, G. (2017, May). The assessment of health anxiety and of health care behaviors: Translation, standardization, and development of tools in the Greek

- language (Greek title: Η αξιολόγηση του άγχους υγείας και των συμπεριφορών φροτνίδας υγείας: Μετάφραση, στάθμιση και δημιουργία εργαλείων στην ελληνική γλώσσα). *16<sup>th</sup> Congress of the Hellenic Psychological Society, Thessaloniki, Greece.*
- Leyva, B., Taber, J. M., & Trivedi, A. N. (2020). Medical Care Avoidance Among Older Adults. *Journal of Applied Gerontology : The Official Journal of the Southern Gerontological Society*, 39(1), 74–85. <https://doi.org/10.1177/0733464817747415>
- MacKian, S. (2003). A review of health-seeking behaviour: Problems and prospects. Manchester: Health Systems Development Programme, University of Manchester.
- McMullan, R. D., Berle, D., Arnáez, S., & Starcevic, V. (2019, February 15). The relationships between health anxiety, online health information seeking, and cyberchondria: Systematic review and meta-analysis. *Journal of Affective Disorders*. Elsevier B.V. <https://doi.org/10.1016/j.jad.2018.11.037>
- Moore, P. J., Sickel, A. E., Malat, J., Williams, D., Jackson, J., & Adler, N. E. (2004). Psychosocial Factors in Medical and Psychological Treatment Avoidance: The Role of the Doctor–Patient Relationship. *Journal of Health Psychology*, 9(3), 421–433. <https://doi.org/10.1177/1359105304042351>
- Newby, J. M., Hobbs, M. J., Mahoney, A. E. J., Wong, S. (Kelvin), & Andrews, G. (2017). DSM-5 illness anxiety disorder and somatic symptom disorder: Comorbidity, correlates, and overlap with DSM-IV hypochondriasis. *Journal of Psychosomatic Research*, 101, 31–37. <https://doi.org/10.1016/j.jpsychores.2017.07.010>
- Olatunji, B. O., Deacon, B. J., Abramowitz, J. S., & Valentiner, D. P. (2007). Body vigilance in nonclinical and anxiety disorder samples: Structure, correlates, and prediction of health concerns. *Behavior Therapy*, 38(4), 392–401. <https://doi.org/10.1016/j.beth.2006.09.002>
- Rachman, S. (2012). Health anxiety disorders: A cognitive construal. *Behaviour Research*

- and Therapy*, 50(7–8), 502–512. <https://doi.org/10.1016/j.brat.2012.05.001>
- Rattray, J., & Jones, M. C. (2007). Essential elements of questionnaire design and development. *Journal of Clinical Nursing*. <https://doi.org/10.1111/j.1365-2702.2006.01573.x>
- Salkovskis, P. M., Rimes, K. a, Warwick, H. M. C., & Clark, D. M. (2002). The Health Anxiety Inventory: Development and validation of scales for the measurement of health anxiety and hypochondriasis. *Psychological Medicine*, 32(5), 843–853. <https://doi.org/10.1017/S0033291702005822>
- Siniscalco, M. T., & Auriat, N. (2005). Questionnaire design. In K. N. Ross (Ed.), *Quantitative Research Methods in educational planning* (pp. 1–84). International Institute for Educational Planning/UNESCO.
- Smith, K. T., Monti, D., Mir, N., Peters, E., Tipirneni, R., & Politi, M. C. (2018). Access Is Necessary but Not Sufficient: Factors Influencing Delay and Avoidance of Health Care Services. *MDM Policy & Practice*, 3(1), 238146831876029. <https://doi.org/10.1177/2381468318760298>
- St. Jean, B., Jindal, G., & Liao, Y. (2017). Is ignorance really bliss?: Exploring the interrelationships among information avoidance, health literacy and health justice. *Proceedings of the Association for Information Science and Technology*, 54(1), 394–404. <https://doi.org/10.1002/pra2.2017.14505401043>
- te Poel, F., Baumgartner, S. E., Hartmann, T., & Tanis, M. (2016). The curious case of cyberchondria: A longitudinal study on the reciprocal relationship between health anxiety and online health information seeking. *Journal of Anxiety Disorders*, 43, 32–40. <https://doi.org/10.1016/j.janxdis.2016.07.009>
- Tipirneni, R., Politi, M. C., Kullgren, J. T., Kieffer, E. C., Goold, S. D., & Scherer, A. M. (2018). Association Between Health Insurance Literacy and Avoidance of Health Care

Services Owing to Cost. *JAMA Network Open*, 1(7), e184796.

<https://doi.org/10.1001/jamanetworkopen.2018.4796>

Tromp, D. M., Brouha, X. D. R., Hordijk, G. J., Winnubst, J. A. M., Gebhardt, W. A., van der Doef, M. P., & De Leeuw, J. R. J. (2005). Medical care-seeking and health-risk behavior in patients with head and neck cancer: the role of health value, control beliefs and psychological distress. *Health Education Research*, 20(6), 665–675.

<https://doi.org/10.1093/her/cyh031>

Ward, H., Mertens, T. E., & Thomas, C. (1997). Health seeking behaviour and the control of sexually transmitted disease. *Health Policy and Planning*, 12(1), 19–28.

Waring, M. E., McManus, D. D., Amante, D. J., Darling, C. E., & Kiefe, C. I. (2018). Online health information seeking by adults hospitalized for acute coronary syndromes: Who looks for information, and who discusses it with healthcare providers? *Patient Education and Counseling*, 101(11), 1973–1981. <https://doi.org/10.1016/j.pec.2018.06.016>

Warwick, H., & Salkovskis, P. (1990). Hypochondriasis. *Behaviour Research and Therapy*, 28(2), 105–117. [https://doi.org/https://doi.org/10.1016/0005-7967\(90\)90023-C](https://doi.org/https://doi.org/10.1016/0005-7967(90)90023-C)

Ye, J., Shim, R., & Rust, G. (2012). Health Care Avoidance among People with Serious Psychological Distress: Analyses of 2007 Health Information National Trends Survey. *Journal of Health Care for the Poor and Underserved*, 23(4), 1620–1629.

<https://doi.org/10.1353/hpu.2012.0189>

Table 1.  
*Pearson's correlation between HCBQ factors*

	Range	M (SD)	Cronbach's alpha	1	2	3	4	5	6
1 Information Avoidance	18	4.60 (3.94)	.79	-	-.120*	.264**	.004	.065	.429**
2 Information Seeking	12	4.02 (2.58)	.72			.024	.222**	.379**	.095
3 Care Avoidance	12	5.02 (3.02)	.75				-.273**	-.134*	.182**
4 Care Seeking	12	4.87 (2.53)	.77					.383**	-.007
5 Asking for Care	13	4.01 (2.53)	.69						.219**
6 Postponing Care	12	1.10 (1.87)	.85						-

Note. \* $p < .05$ ; \*\* $p < .01$

Table 2.

*Pearson's correlation between HCBQ factors and HCSUS questions.*

Frequency during the last month:	Information Avoidance	Information Seeking	Care Avoidance	Care Seeking	Asking for Care	Postponing Care
Phone calls to healthcare professionals	-.056	.162**	-.065	.129*	.127*	.004
Visits to healthcare centers except of first aid department	-.006	.045	-.059	.087	.204**	.000
Visits to emergency department	-.003	-.059	-.026	-.052	.019	.009
Number of healthcare professionals visited	-.024	.072	-.101	.075	.148*	-.011
Medical examinations	-.044	-.018	-.061	-.026	.077	-.003
Prescriptions	-.018	.048	-.075	.095	.182**	.008
Request for unprescribed medication or other treatment	.093	.064	.046	-.001	.170**	-.016
Inpatient treatment	-.042	-.031	-.012	-.038	-.005	-.015
Hours of searching for symptoms and illness on the internet or other information sources	-.130*	.357**	-.034	.088	.100	-.062

*Note.* \* $p < .05$ ; \*\* $p < .01$



Table 3.

*HCBO factors as predictors (beta values) of illness anxiety*

Model/ Outcome variable:	Care Seeking	Care Avoidance	Information Seeking	Information Avoidance	Asking for Care	Postponing Care
SHAI total $F(6,196)=5.81, p<.001, R^2=.15$	.238**	.014	.185*	.219**	.016	-.060
SHAI Health Anxiety $F(6,196)=6.58, p<.001, R^2=.17$	.268***	.037	.195*	.179*	.024	-.050
SHAI Consequences $F(6,196)=1.24, p>.05, R^2=.04$	.037	-.053	.063	.211*	-.014	-.055
IAS total $F(6,348)=12.26, p<.001, R^2=.17$	.232***	.089	.149**	.209***	.141*	-.115*
IAS Worries about illness $F(6,348)=5.48, p<.001, R^2=.09$	.190**	.085	.134*	.142*	.027	-.112
IAS Body Preoccupations $F(6,348)=7.05, p<.001, R^2=.11$	.187**	.097	.126*	.199**	.048	-.053
IAS Concerns about Pain $F(6,348)=6.86, p<.001, R^2=.11$	.204***	.043	.107	.103	.116	-.074
IAS Hypochondriacal beliefs $F(6,348)=4.65, p<.001, R^2=.07$	-.083	.043	.073	.040	.209**	.076
IAS Effects of Symptoms $F(6,348)=5.13, p<.001, R^2=.08$	.188**	.107	.096	.138*	.046	-.121*
IAS Treatment Experience $F(6,348)=4.63, p<.001, R^2=.07$	.251***	.103	.078	.041	-.020	-.086
IAS Disease Phobia $F(6,348)=5.42, p<.001, R^2=.09$	.059	.057	.105	.210***	.113	-.033
IAS Thanatophobia $F(6,348)=5.33, p<.001, R^2=.08$	.069	-.074	.273***	.050	.083	-.077
IAS Health Habits $F(6,348)=5.39, p<.001, R^2=.08$	.141*	-.002	.036	-.013	.182**	-.099

Note. SHAI=Short Health Anxiety Inventory; IAS=Illness Attitudes Scales. \*\*\*  $p<.001$ ; \*\*  $p<.01$ ; \*  $p<.05$ .

Supplementary Table 1.

*Factor loadings after rotation*

	Factor					
	Information for Avoidance	Asking Care	Care avoidance	Factor 4	Care Seeking	Postponing Information Seeking
27 Προτιμώ να μην παρακολουθώ τηλεοπτικές ή ραδιοφωνικές εκπομπές που αναφέρονται σε θέματα υγείας που με ανησυχούν. (I prefer not to watch TV or radio broadcasts that refer to health issues that make me worry.)	.783					
26 Προτιμώ να μη διαβάζω πληροφορίες για θέματα υγείας που με ανησυχούν σε ενημερωτικά έντυπα, βιβλία, ή άρθρα. (I prefer not to read information from informational leaflets, books and articles on health issues that make me worry.)	.779					
24 Προτιμώ να μην έρχομαι σε επαφή με πληροφορίες για θέματα υγείας που με ανησυχούν για να μην αναστατωθώ. (I prefer not to come into contact with information for health issues that make me worry so that I do not get frustrated.)	.738					
25 Προτιμώ να μην επισκέπτομαι επαγγελματίες υγείας για να μην αναστατωθώ. (I prefer not to visit healthcare professionals so that I do not get frustrated.)	.544					
10 Όταν παρουσιάζω κάποιο σωματικό σύμπτωμα, ζητώ να γίνουν αναλύσεις ή άλλες διαγνωστικές εξετάσεις. (When I present a somatic symptom, I request medical examination or other diagnostic tests to be conducted.)		.738				
8 Όταν παρουσιάζω κάποιο σωματικό σύμπτωμα, παροτρύνω το γιατρό μου ή άλλο επαγγελματία υγείας να διερευνήσει. (When I present a somatic symptom, I encourage my doctor or other healthcare professional to examine it.)		.648				
9 Όταν παρουσιάζω κάποιο σωματικό σύμπτωμα, ζητώ φαρμακευτική αγωγή ή άλλου είδους θεραπεία, με ιατρική συνταγή. (When I present a somatic symptom, I request prescribed medication or other type of treatment.)		.512				

7 Όταν παρουσιάζω κάποιο σωματικό σύμπτωμα, αφιερώνω χρόνο στο να παρακολουθώ σχετικές εκπομπές στην τηλεόραση ή στο ραδιόφωνο. (When I present a somatic symptom, I spent time to watch relevant broadcasts on tv or on the radio.)	.425	.389
4 Όταν παρουσιάζω κάποιο σωματικό σύμπτωμα, επισκέπτομαι τις πρώτες βοήθειες. (When I present a somatic symptom, I visit the emergency department.)	.349	
16 Όταν παρουσιάζω κάποιο σωματικό σύμπτωμα, ανησυχώ αλλά προτιμώ να μην επισκέπτομαι κάποιο επαγγελματία υγείας. (When I present a somatic symptom, I worry but I prefer not to visit a healthcare professional.)	.701	
15 Όταν παρουσιάζω κάποιο σωματικό σύμπτωμα, ανησυχώ αλλά προτιμώ να μην επισκέπτομαι κάποιο κέντρο υγείας. (When I present a somatic symptom, I worry but I prefer not to visit a healthcare center.)	.621	
17 Όταν παρουσιάζω κάποιο σωματικό σύμπτωμα, ανησυχώ αλλά προτιμώ να μην επισκέπτομαι τις πρώτες βοήθειες. (When I present a somatic symptom, I worry but I prefer not to visit the emergency department.)	.603	
19 Προτιμώ να μην εκφράζω σε άλλα άτομα την ανησυχία μου για κάποιο σωματικό σύμπτωμα που έχω ή για πιθανή ασθένεια. (I prefer not to express my worries for a somatic symptom or illness that I have to other people.)	.538	
20 Αν έρθω σε επαφή με πληροφορίες που σχετίζονται με μια ασθένεια αμέσως εστιάζω αλλού την προσοχή μου. (If I come into contact with information that is related to an illness I focus my attention elsewhere immediately.)		
11 Εκφράζω την ανησυχία μου για κάποιο σωματικό σύμπτωμα στην οικογένεια μου ή σε άλλα άτομα για να ακούσω τη γνώμη τους. (I express my worry for a somatic symptom to my family or other people to get their opinion.)	.631	

13 Αν έρθω σε επαφή με πληροφορίες που σχετίζονται με κάποιο σωματικό σύμπτωμα ή μια ασθένεια που πιθανόν να έχω, δίνω προσοχή σε αυτές. (If I come into contact with information that is related to a somatic symptom or illness that I may have, I pay attention to them.)	.597
12 Όταν παίρνω ιατρική συμβουλή για μια ασθένεια που με ανησυχεί καθησυχάζομαι. (When I get medical advice about an illness that I worry about I feel relieved.)	.586
14 Όταν αναζητώ πληροφορίες για κάποιο σωματικό σύμπτωμα ή μια πιθανή ασθένεια καθησυχάζομαι. (When I search for information for a somatic symptom or a possible illness, I feel relieved.)	.423
1 Όταν παρουσιάζω κάποιο σωματικό σύμπτωμα, επισκέπτομαι κάποιο κέντρο υγείας. (When I present a somatic symptom, I visit a healthcare center.)	.741
2 Όταν παρουσιάζω κάποιο σωματικό σύμπτωμα, επισκέπτομαι κάποιο επαγγελματία υγείας. (When I present a somatic symptom, I visit a healthcare professional.)	.724
3 Όταν παρουσιάζω κάποιο σωματικό σύμπτωμα, τηλεφωνώ σε κάποιο επαγγελματία υγείας. (When I present a somatic symptom, I call a healthcare professional.)	.535
22 Αναβάλω τις ιατρικές μου εξετάσεις λόγω της ανησυχίας μου για τα αποτελέσματα. (I postpone my medical examinations due to my worries about the results.)	.832
21 Αναβάλω το ραντεβού μου με επαγγελματία υγείας λόγω της ανησυχίας μου για το τι θα μάθω για την υγεία μου. (I postpone my appointment with a healthcare professional due to my worry about what I will hear about my health.)	.808
23 Αναβάλω τη λήψη των αποτελεσμάτων των ιατρικών μου εξετάσεων λόγω της ανησυχίας μου για τα αποτελέσματα. (I postpone reception of my medical examination results due to my worry about the results.)	.745

5 Όταν παρουσιάζω κάποιο σωματικό σύμπτωμα, αφιερώνω χρόνο στο να ψάχνω πληροφορίες για αυτό στο διαδίκτυο. (When I present a somatic symptom, I spent time to search for information on the internet.)		.784
6 Όταν παρουσιάζω κάποιο σωματικό σύμπτωμα, αφιερώνω χρόνο στο να διαβάζω σχετικές πληροφορίες από ενημερωτικά έντυπα, βιβλία ή άρθρα. (When I present a somatic symptom, I spent time to read relevant information on leaflets, books or articles.)		.738
18 Προτιμώ να μην έρχομαι σε επαφή με πληροφορίες στο διαδίκτυο που αφορούν κάποιο σύμπτωμα ή μια πιθανή ασθένεια που με ανησυχεί. (I prefer not to come into contact with information on the internet that refers to a symptom or a possible illness that worries me.)	.345	-.392

---

Supplementary Table 2.

*Gender differences in HCBQ factors*

	Gender	N	Mean	SD	T-test
Information Avoidance	female	279	4.49	3.79	t(357)=-.93, p>.05
	male	80	4.96	4.39	
Information Seeking	female	279	3.97	2.61	t(357)=-.65, p>.05
	male	80	4.19	2.49	
Care Avoidance	female	279	4.90	3.03	t(357)=-1.36, p>.05
	male	80	5.43	2.98	
Care Seeking	female	279	4.91	2.49	t(357)=.49, p>.05
	male	80	4.75	2.68	
Asking for Care	female	279	4.00	2.85	t(357)=-.13, p>.05
	male	80	4.05	2.90	
Postponing Care	female	279	1.03	1.82	t(357)=-1.29, p>.05
	male	80	1.34	2.01	

Supplementary Table 3.

*Living area differences in HCBQ factors*

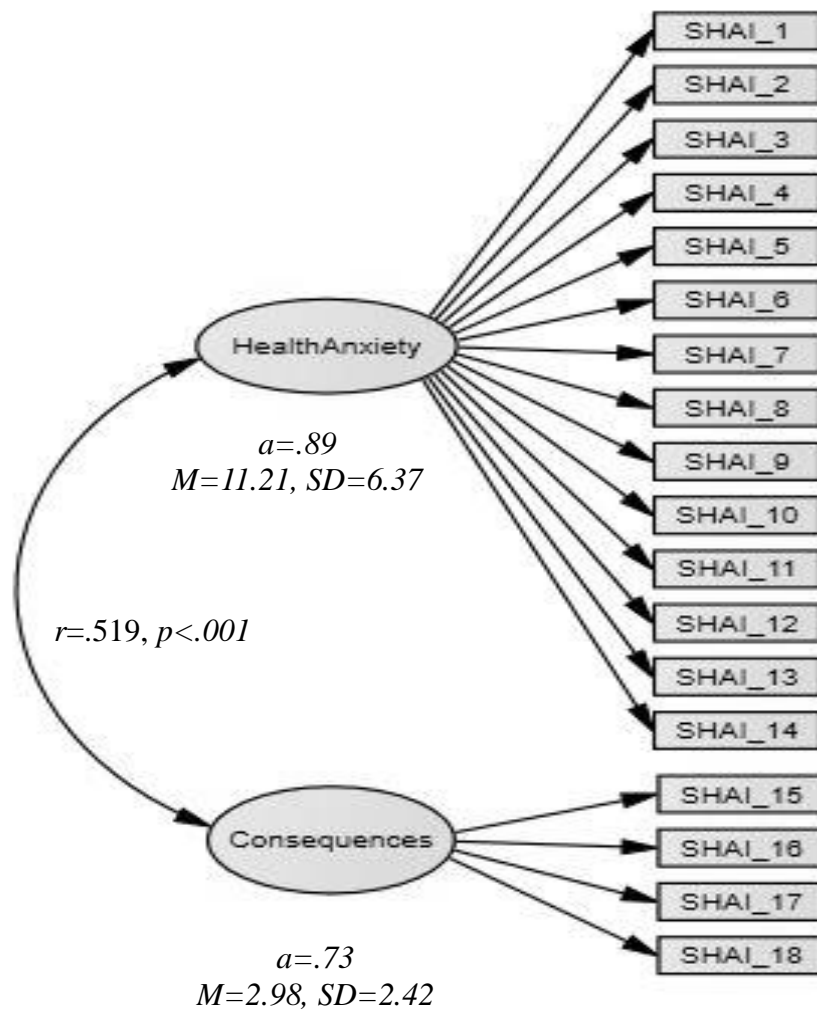
	Living Area	N	Mean	SD	T-test
Information Avoidance	urban	252	4.56	3.94	t(355)=-.21, p>.05
	rural	105	4.66	3.90	
Information Seeking	urban	252	4.116	2.57	t(355)=.88, p>.05
	rural	105	3.85	2.62	
Care Avoidance	urban	252	5.03	3.00	t(355)=.14, p>.05
	rural	105	4.98	3.08	
Care Seeking	urban	252	4.87	2.50	t(355)=.07, p>.05
	rural	105	4.85	2.65	
Asking for Care	urban	252	4.00	2.84	t(355)=-.25, p>.05
	rural	105	4.09	2.90	
Postponing Care	urban	252	1.12	1.80	t(355)=.14, p>.05
	rural	105	1.09	2.04	

Supplementary Table 4.

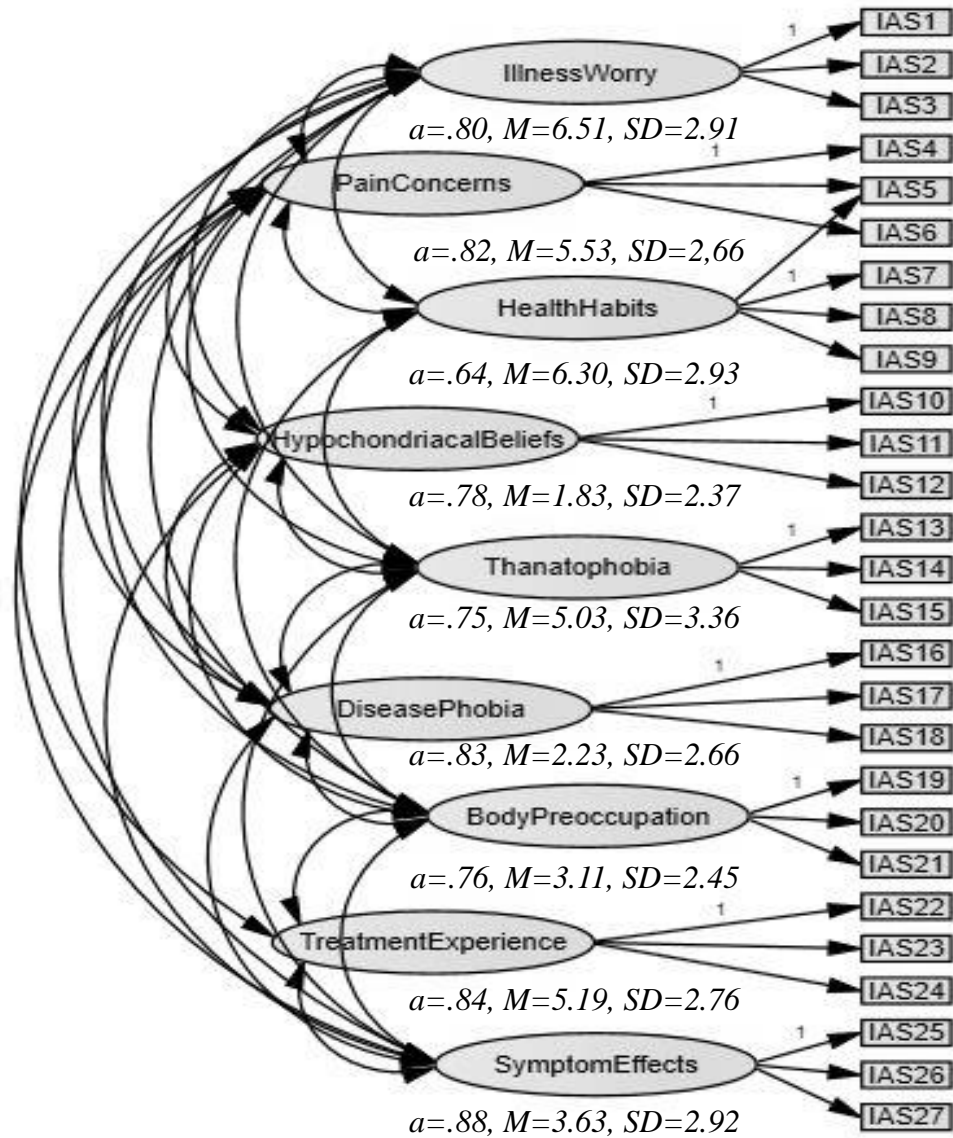
*Medical diagnosis group differences in HCBQ factors*

	Medical Diagnosis	N	Mean	SD	T-test
Information Avoidance	No	324	4.66	4.00	t(357)=.94, p>.05
	Yes	35	4.00	3.22	
Information Seeking	No	324	3.99	2.55	t(357)=-.57, p>.05
	Yes	35	4.26	2.91	
Care Avoidance	No	324	4.97	2.99	t(357)=-.90, p>.05
	Yes	35	5.46	3.27	
Care Seeking	No	324	4.84	2.54	t(357)=-.67, p>.05
	Yes	35	5.14	2.50	
Asking for Care	No	324	4.05	2.87	t(357)=.65, p>.05
	Yes	35	3.71	2.67	
Postponing Care	No	324	1.10	1.88	t(357)=.05, p>.05
	Yes	35	1.09	1.70	





*Supplementary Figure 1.* Factor structure of the Greek version of the Short Health Anxiety Inventory (Karademas et al., 2008; Leonidou & Panayiotou, 2016; Salkovskis et al., 2002).



*Supplementary Figure 2.* Factor structure of the Greek version of the Illness Attitudes Scales (Kellner, 1986; Leonidou & Panayiotou, 2017). Range of Pearson's  $r$  between the subscales:  $r=.060 - r=.616$ .