

# Psychometric Testing of the Hebrew Version of the European Heart Failure Self-Care Behaviour Scale

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*Short title: Hebrew version of the European Heart Failure Self-care Behaviour Scale*

## Abstract

**Background:** The assessment of self-care behaviour is important for tailoring care to patients and evaluate effectiveness of heart failure (HF) disease management programs. The European HF Self-care Behaviour (EHFScB) scale is a validated instrument used worldwide. The purpose of the study was to evaluate psychometric properties of the Hebrew version of the 9-item EHFScB scale in Israeli HF patients.

**Methods:** To develop the Hebrew version of the EHFScB scale, forward and back translation was performed. The psychometric evaluation was based on data from 102 HF patients (mean age  $61\pm12$  years, male 75%, NYHA II and III 42% and 51%, respectively) included in two cross-sectional studies performed in 2007 and 2015–2017 in an Israeli hospital. Content validity, construct validity, known-groups validity and discriminant validity were assessed. Reliability was evaluated with internal consistency.

**Results:** Content validity and usability were confirmed by HF experts and HF patients. Construct validity was tested using factor analysis and extracted two factors (factor 1: consulting behaviour and factor 2: adherence to the regimen). Known-groups validity testing revealed a significant difference before and after an educational intervention in the total score ( $n=40$ ,  $41.6\pm23.8$  vs.  $67.6\pm21.8$ ,  $p<0.01$ ). A weak correlation between the self-care score and

health-related quality of life ( $r=-0.299$ ,  $p<0.01$ ) was observed, showing that these concepts were related, but not overlapping. Cronbach's alpha was 0.78 for the total scale, 0.76 for factor 1 and 0.68 for factor 2, suggesting that the internal consistency of this scale was acceptable.

**Conclusions:** Our study provides support for the usability, validity and reliability of the 9-item Hebrew version of the EHFS<sub>c</sub>B scale.

**Keywords:** Heart failure; Measurement; Reliability; Validity

## INTRODUCTION

Self-care is important for the long-term management of heart failure (HF). Self-care is defined as the process of maintaining health through health-promoting practices and managing illness and is performed in both healthy and ill states [1, 2]. Suggested self-care behaviour for patients with HF include: adherence to medication, maintaining appropriate nutrition, regular exercise and appropriate management of events related to worsening symptoms, such as weight gain, which is mostly caused by fluid retention [3, 4]. Self-care is shown to bring beneficial impacts on both medical- and person-centered outcomes in patients with HF. Those who engage more in self-care have better health-related quality of life (HRQL), lower mortality and readmission rates than those who engage less in self-care [4-7]. An improvement in self-care is one of the therapeutic targets of many disease-management programs [8]. A recent meta-analysis evaluating self-care intervention in HF patients revealed that interventions with longer duration reduced mortality risk and risk of HF-related hospitalizations [9]. To identify possible deficits in HF self-care behaviour and evaluate the effectiveness of interventions to improve self-care, the patient's self-care behaviour needs to be assessed with a validated tool. The standards of care published by the Heart Failure Association of the European Society of Cardiology, advocate the use of a standardized scale for measuring self-care behaviour [10]. The optimal scale should be a short, simple and clear questionnaire.

Currently there are two HF- specific self-care behaviour scales used worldwide. The Self-Care of Heart Failure Index (SCHFI) is a self-report questionnaire comprising 15 items and the scale is divided into three sub-scales measuring self-care maintenance, self-care management, and self-care confidence[11]. The *European Heart Failure Self-care Behaviour*

scale (EHFScB scale) is a 9 item self-administered questionnaire addressing self-care behaviour in HF patients [12, 13]. It has been translated from English into more than 15 languages and used as outcome measure in many disease-management trials [14-16]. A recent review of the psychometric properties of the EHFScB scale concluded that it is a reliable and valid tool to measure self-care behaviour [17]. Both scales are used to measure HF- specific self-care but the conceptualization of the HF self-care between the two instruments seems to be slightly different [18]. Compared with the SCHFI, the EHFScB scale focuses more on self-care behaviour and the total number of items is fewer, which would make patients feel easier to answer the scale.

Self-care behaviour might be of varying significance and importance in different cultures [16] and there might be cultural and country-specific challenges to the performance of self-care [19]. Therefore, it is important to test reliability and validity in translated instruments, since the mere translation of the scale into another language does not automatically imply that the translated scale is suitable for use in that language. Each language represents different cultures, customs, religions and mentalities [20]. Although the scale has been thoroughly evaluated and found to be very practical and reliable [17], data on the usability of the EHFScB scale in different cultures and languages is still scarce. The current Israeli culture is an interesting mosaic of very different cultures but, until now, a Hebrew translation of the EHFScB scale has not been available. The worldwide increase in the number of patients with HF is also observed in Israel, where it is estimated that there are approximately 100,000 HF patients who could benefit from the translated scale.

The aim of this study was to assess the psychometric properties of the Hebrew version of the 9-item EHFScB scale in Israeli HF patients.

## **METHODS**

### **The EHFSdB scale**

The EHFSdB scale is a self-administered questionnaire used to measure the self-care behaviours that are necessary for patients with HF. The EHFSdB scale was first published as a 12-item scale in 2003 [12] and was revised to a 9-item scale in 2009 by omitting three items from the original scale [13]. Each item uses a 5-point Likert scale from 1 (I completely agree) to 5 (I completely disagree). The raw score for the EHFSdB scale ranges from 9 to 45 points, with a lower score indicating better self-care behaviour. For reasons of interpretation, a standardized score from 0–100 was introduced for the 9-item EHFSdB scale, with higher scores reflecting better self-care [21]. In the present study, we used the standardized score. Content validity of the original scale was confirmed by literature review, HF experts and HF patients [13, 21]. Cronbach's alpha of the total scale is reported to be 0.80, and the value of a consulting behaviour subscale was 0.85. Convergent and discriminant validity were also established in the original scale [13].

### **Study procedure**

Firstly, we translated the EHFSdB scale into Hebrew (Phase 1); subsequently, we evaluated the psychometric properties of the translated scale (Phase 2).

#### **Phase 1**

To ensure semantic equivalence, the translation of the EHFS<sub>CB</sub> scale from English into Hebrew was performed in several steps. First, the English version of the scale was translated into Hebrew (VY & TBG) and then blindly back-translated into English by two English teachers, not known to the patient group. Second, the original Hebrew translation and the back-translated versions were evaluated by three bilingual cardiologists for correctness of translation and proper use of terms. The comments on the proper translation of two items (medication and diet) were discussed until a consensus was reached. The discussion on the item about medication was related to finding the correct translation of the word ‘prescribed,’ whereas the item on diet was to find the best word that reflected the intake of low salt food and not use of the word diet as a weight losing/slimming activity. In the next step, the Hebrew scale was administered to 10 healthy individuals. They had no comments about language comprehension and found the meaning of every question easy to understand. The translated version is displayed in Table 1.

## **Phase 2**

### **1. Study design**

To evaluate the psychometric properties of the Hebrew version of the EHFS<sub>CB</sub> scale, data from two cohort studies was merged and analysed. The first study was conducted in January to October 2007 and the second between October 2015 and February 2017 in Israel.

### **2. Participants**

Participants from both studies were Israeli Hebrew-speaking patients with documented HF who were attending the HF clinic at the Rabin Medical Centre, a tertiary-care teaching hospital. In both studies, eligible patients were invited to participate in the study after receiving both written and oral information. Data was collected by means of self-administered questionnaires and a medical chart review.

In the first cohort study, HF patients who were attending the clinic for the first time were invited to participate in this study by their treating cardiologists or general practitioner. Inclusion criteria were being older than 18 years and able to understand and complete the questionnaire in Hebrew. Exclusion criteria were having a condition that made it impossible for patients to participate in the study (impaired mental status, psychiatric disorder or severe mobility handicap due to non-cardiac problems).

In the second cohort study, patients who participated in the HF-Wii study[22] in Israel were included. Patients were enrolled from the HF clinic at the Rabin Medical Center from October 2015 to February 2017. The eligibility criteria were as follows: (a) diagnosis of HF [New York Heart Association (NYHA) I–IV], independent of the ejection fraction; (b) older than 18 years, without an upper age limit; and (c) able to speak/understand the Hebrew language. The exclusion criteria were as follows: (a) unable to use a Wii -game b) unable to fill in data collection material; and (c) a life expectancy shorter than six months.

### **3. Ethical considerations**

Both studies were approved by the local Ethics Committee and each patient signed the informed consent form.



#### **4. Testing of psychometric properties**

##### *Content validity and practical use*

Content validity of the original EHFS<sub>c</sub>B scale was confirmed by analysing the relevant literature and consulting with experts in the management of HF patients [12]. For the Hebrew version of the EHFS<sub>c</sub>B scale, four HF experts, including cardiologists and HF nurses, were consulted for their opinions on completeness, user friendliness and the relevance of the scale to the Israeli population before the first cohort study. Participants were asked about difficulties in administering the questionnaire. Time to complete this scale was also examined.

##### *Construct validity*

*Item analysis:* To assess the distribution of responses of the EHFS<sub>c</sub>B scale, data from the Likert scale is presented as an interval scale. The floor and ceiling effects were shown as percentages of patients who obtained the minimum and maximum possible standardized score, respectively. The presence of missing items was also examined.

*Factor validity:* In a previous meta-analysis, it was found that the factor structure is not consistent in different language versions [17]. We therefore performed a principal component factor analysis with promax rotation. To choose the number of factors, the Kaiser criterion [23] that eigenvalues be greater than one and the scree plot were used.

*Known-groups technique:* The known-groups technique was used to show the ability of the EHFS<sub>c</sub>B scale to differentiate between patients before and after an educational intervention

[12]. We hypothesized that an educational intervention by a nurse would be effective in improving self-care in HF patients [24]. In the first cohort study, we compared HF patients' self-care as assessed using the EHFS<sub>c</sub>B scale before and after the educational intervention using a paired t-test. A HF nurse provided a one-hour educational session. The importance of adherence to self-care appropriate for HF patients was emphasized. An illustrated educational booklet on HF was provided and patients were given the option to contact the HF nurse directly by phone for further advice and guidance if needed. Within 12±4 weeks, at their next visit to the clinic, patients were asked once again to complete the EHFS<sub>c</sub>B scale. The known-group validity was not tested in the second cohort study, because these patients were recruited for a randomized controlled study (HF-Wii study) [22] and the intervention was not focused on patient education related to self-care, therefore not creating two groups that could be compared based on their level of self-care. *Discriminant validity:* We hypothesized, on the basis of previous review [17], that a weak or no correlation (the absolute value of correlation coefficient  $r. < 0.30$ ) [25] between the total score of the EHFS<sub>c</sub>B scale and HRQL would be found, since they were considered to measure different constructs. HRQL was assessed using the Minnesota Living with Heart Failure Questionnaire (MLwHFQ). The MLwHFQ consists of 21 items that cover HF-related physical, psychological and social impairments [26]. The patient's perception of such impairment is assessed on a scale ranging from 'no' (score of 0) to 'very much' (score of 5). The total MLwHFQ score ranges from 0 to 105: a higher score indicates worse HRQL. Data from the second cohort study was used for this analysis. The relationship between the total score of the EHFS<sub>c</sub>B scale and the MLwHFQ score was assessed using Pearson's correlation coefficient.

The discriminant validity was tested only in the second cohort study. After the first cohort study we realized that we needed additional data on HRQL and collected the HRQL data in the second cohort study.

### Reliability

Internal consistency was measured using Cronbach's alpha. An  $\alpha$  coefficient of 0.70 was considered sufficient [27].

### Threshold score

In a previous study by Wagenaar et al. [28], adequate self-care was defined by a threshold of the total score on the EHFS<sub>c</sub>B scale of 70. HF patients with an adequate self-care score ( $\geq 70$ ) had fewer instances of all-cause hospitalization than those with inadequate self-care (score  $< 70$ ) [28]. To further explore the value of a threshold of 70, the demographic and clinical characteristics of participants were compared using this threshold. In addition, the percentage of patients with adequate self-care (score  $\geq 70$ ) was compared before and after an educational intervention by means of McNemar's test using data from the first cohort study.

## **5. Demographic and clinical data collection**

The following demographic and clinical variables of patients were collected from the questionnaires and medical records: age, gender, marital status, education, aetiology of HF, duration of HF, New York Heart Association (NYHA) functional class, left ventricular ejection fraction (LVEF).

## 5. Statistical analysis

Descriptive data is presented as a mean and standard deviation for continuous variables and nominal scaled variables are displayed as numbers and percentages. To compare the demographic and clinical characteristics of patients, the Student's t-test or Mann-Whitney U test for continuous variables, and Chi-square test or Fisher's exact test for categorical variables were used as appropriate. Missing data from the EHFScB scale were handled according to the instructions recommended by original authors [12], meaning that, if fewer than three items of the total score were missing, missing items were substituted with a score of 3. If more than three items were missing, the EHFScB scale was considered missing. The missing values in the MLwHFQ were substituted by 0 in cases of up to three missing items. All statistical tests were two-tailed, and a  $p$ -value  $<0.05$  was considered statistically significant. All analyses were performed using SAS version 9.3 for Windows (SAS Institute Inc., Cary, North Carolina, USA) and IBM SPSS Statistics for Windows, version 25.0 (Armonk, NY, USA: IBM Corp).

## **RESULTS**

### **Sociodemographic and clinical characteristics of the participants**

In the first cohort study, 44 consecutive HF patients were invited to participate in the study, and 42 patients (95%) agreed to complete the questionnaire. None of these patients had been followed by a dedicated HF clinic and none had received previous HF education. In the second cohort study, a total of 105 HF patients were approached to participate in the HF-Wii study; 60 agreed and completed the baseline measurement.

In total (n=104), the patients' mean age was  $61 \pm 12$  years and 75% were male. Functional capacity and LVEF were significantly reduced (51% of the patients were in NYHA III and their mean LVEF was 31%). In the second cohort study, ischemic cardiomyopathy was the aetiology of HF in 53% of the patients and more than one third (38%) had diabetes and 20% had renal failure. The mean score of MLwHFQ was  $44 \pm 24$ . Other demographic and clinical characteristics are presented in Table 2.

### **Content validity and usability**

Four HF experts found that the Hebrew version of the EHFBS<sub>CB</sub> scale was appropriate but items concerning general self-care like weight reduction and smoking cessation were considered to be missing. Considering the possibility of comparing the results with other translation versions, and these two behaviours were not HF-specific self-care behaviours, we decided not to add the items as part of the total scale but collect such data separately using a self-administered questionnaire when it is necessary.

Patients found the scale easy to complete after a short explanation; they took no more than 10–15 minutes to complete it and their need for assistance was minimal.

## **Construct Validity**

### *Item analysis*

The item analysis demonstrated skewed distributions in two items (Table 3). Approximately 70 patients answered the item 6 with a score of 4 or 5, suggesting that they did not contact their doctor nor nurses when they experienced fatigue. Ninety percent of patients reported the item 8 with a score of 1 or 2, indicating that most patients took their medication as prescribed. The most frequently performed self-care behaviours were taking medicines as prescribed (mean score,  $1.3 \pm 1.0$ ), whereas the less frequent self-care behaviours were consulting behaviour in cases of increasing fatigue, swollen legs, or weight gain ( $4.1 \pm 1.4$ ,  $3.6 \pm 1.7$ ,  $3.6 \pm 1.6$ , respectively). The frequency of missing data varied between 0% and 2.9% across items. The mean of the raw total score for the EHFScB scale was  $27.2 \pm 8.4$ , and the standardized score was  $49.5 \pm 23.3$ .

### *Structure validity*

A principal component factor analysis with promax rotation demonstrated a two-factor model (Table 4). Factor 1 consisted of four items about consulting behaviour in cases of worsening HF (items 2, 3, 4 and 6). Factor loading of these four items ranges from 0.54 to 0.85. Since item 1 “I weigh myself every day” loaded on both factors, we decided to classify the item into factor 2 due to theoretical considerations. Factor 2 therefore included five items regarding adherence to the regimen, such as a low-salt diet (items 1, 5, 7, 8 and 9). Factor loading of the five items

ranged from 0.41 to 0.56. A cumulative percentage of variance explained by the two factors was 53.6%.

#### Floor and ceiling effects

Table 5 shows the results of floor and ceiling effects of the standardized score for the EHFS<sub>CB</sub> scale. The floor effect, indicating the lowest self-care behaviour, was observed in 19% of the HF patients in a subscale of “adherence to the regimen,” but in the total score, the floor effect was shown in only 2% of patents. In contrast, percentages for the ceiling effects indicating greatest self-care behaviour in the total score and two subscales ranged from 0.98% to 4.9%.

#### known-groups technique and discriminant validity

In the first cohort study, two patients did not attend the clinic for follow-up visits after a nursing intervention due to transportation issues. Thus, a total of 40 patients with HF were analysed for known-groups ability. The total score of the EHFS<sub>CB</sub> scale was  $41.6 \pm 23.8$  before the nurse education. After the educational intervention, the score was significantly improved ( $67.6 \pm 21.8$ ,  $t = -6.1$ ,  $p < .001$ ). All items showed a statistically significant change after the educational intervention (Table 6).

A weak correlation between the total score of the EHFS<sub>CB</sub> scale and the MLwHFQ score ( $r = -0.299$ ,  $p = .002$ ) was found.

#### **Reliability: Internal consistency**

Cronbach’s alphas for the subscale of ‘consulting behaviour’ and ‘adherence to the regimen’ were 0.76 and 0.68 respectively, whereas Cronbach’s alpha for a single-factor model was 0.78.

As shown in Table 4, item-total correlation of item 8 was low, but deletion of this item did not improve the internal consistency of the scale. Thus, it was decided to keep item 8 in the scale.

### **Threshold score**

Taking a threshold of 70, 21 patients (21%) were classified into the adequate self-care group (total score of the EHFScB scale  $\geq 70$ ,  $81.0 \pm 7.8$ , whereas 81 patients (79%) were in the inadequate self-care group (score  $\leq 70$ ,  $41.3 \pm 18.5$ ). As presented in Table 2, most of patients' characteristics were similar between the two groups, but patients with adequate self-care were likely to have more ischemic aetiology (75% vs. 45%,  $p = 0.08$ ). There was a significant difference in the percentages of adequate self-care before and after an educational intervention by HF nurses (4 patients (10%) and 21 patients (53%), respectively,  $p < .001$ ), in the first cohort study.



## DISCUSSION

This study shows that the Hebrew version of the 9-item EHFSB scale is a valid and reliable scale to measure HF-specific self-care behaviour, consistent with previous reports about the EHFSB scale in other languages (Dutch [12, 13] German [29] Italian [21], English [30], Danish [31] Japanese [32] and Chinese [33]).

### Content validity

The EHFSB scale was translated into Hebrew language through several steps. After forward- and back- translation by bilingual translators, the original and the back-translated version were compared for accuracy, and each item was discussed by translation experts until a consensus was reached. Through these steps, semantic equivalence between the two languages is considered to be achieved.

There are three aspects of content validity: relevance, comprehensiveness, and comprehensibility [34]. In the present study, these aspects were examined by HF experts, healthy individuals, and HF patients. The Hebrew EHFSB scale is therefore considered to have good content validity. With regard to comprehensibility, HF experts suggested that self-care behaviours such as stopping smoking and losing weight should be included in the scale; however, the items were not added into the Hebrew version of the EHFSB scale because these were not HF-specific self-care behaviour and adding adenoidal items would complicate comparing scores to other samples using a 9-item version. This confirms previous reflections that items such as smoking cessation and limiting alcohol are relevant self-care behaviours. Although they might not be specifically relevant to HF patients, these behaviours are important to consider in self-care and might be addressed as additional items when assessing self-care. The recently developed ‘Self-Care in Chronic Illness Inventory’ (SC CII) consists of more

general self-care behaviours that are important for patients with chronic illness [35]. Although the SC CII is not HF specific, it might be considered for use in parallel with the EHFSB scale when measuring general self-care behaviour.

#### Construct validity: structure validity

In the present study, two factors (consulting behaviour and adherence to the regimen) were extracted. This two-factor model supports findings reported by Jaarsma et al., [13] which included 2592 patients from Sweden, the Netherlands, the United Kingdom, Italy, Germany and Spain. Meanwhile, some previous studies have reported a three-factor model for this scale [21, 29, 33], where items from a subscale of adherence to the regimen were divided into two factors, but a subscale of consulting behaviour always consisted of the same four items as ours. Unlike in the previous study [13], item 1 (I weigh myself every day) loaded equally strongly on the subscale “consulting behaviour” in this study. This might be explained by low self-monitoring and self-management behaviours in this Israeli sample, as described below. In other words, if patients regularly check their weight, they are more likely to consult healthcare providers in case of HF worsening. Regardless of a slightly lower factor loading for item 1, we decided to include it in the subscale of adherence to the regimen in consideration of our theoretical interpretation, an acceptable value of Cronbach alpha and previous findings [13, 17].

#### Construct validity: known-group validity and discriminant validity

Consistent with our hypothesis that after nurse education, patients had a higher EHFSB scale score, the score significantly improved after the education, suggesting sufficient known-group validity of the Hebrew scale. Similar results were reported from the original scale [12] and Italian version [36]. As we had hypothesized, a weak correlation between the EHFSB scale score and the MLwHFQ score was observed, which confirms discriminant validity of the

Hebrew scale. The result is consistent with previous findings reported from original and other translation version [17] and indicates that self-care is a different construct than HRQL.

#### Socio-cultural issues

It was notable that this Israeli sample of HF patients showed a rather low score related to symptom management compared to other samples [13]. Appropriate self-care requires symptoms to be understood and interpreted correctly. Symptoms such as dyspnea, swollen ankles, fatigue or weight gain might not be recognized by the Israeli patients as serious enough to contact a healthcare provider. Patient education should include contents to promote comprehensive understanding of heart failure and its symptoms, as well as the importance of self-care behaviours [37]. For Israeli health care, bringing the importance of self-monitoring and self-management to the patient's attention might therefore be an important component influencing the educational process among HF patients [37]. At the same time, the result suggests that this scale can be used to reveal possible socio-cultural differences in self-care, for example, the differences of willingness of patients from different cultures to seek help when it is necessary (consulting behaviour) or the possibilities in a health care system to do this behaviour (access to care).

#### Reliability

For the reliability assessment, Cronbach's alpha for the studied sample was 0.78 for the total 9-item scale, and 0.76 and 0.68 for the subscales of 'consulting behavior' and 'adherence to the regimen' respectively. Given that Cronbach's  $\alpha \geq 0.70$  suggests sufficient internal consistency of the scale [38], our results confirm that the total scale and the subscale of 'consulting behaviour' have adequate internal consistency. These results are consistent with the original EHFS<sub>ScB</sub> scale [13]. Similar results were calculated for other language versions that

reported values around 0.70 and 0.80 for the 9-item version [17]. Contrary to the low alpha value (0.56) for the subscale ‘adherence to the regimen’ in the original scale[13], our Hebrew scale shows acceptable internal consistency for the subscale.

#### Use of scale in clinical and research

In this paper, we have added knowledge about the floor and ceiling effects of the EHFS<sub>CB</sub> scale, showing that the scale can be a valuable tool in research studies to detect changes in self-care behaviours; for example, after an educational intervention. A Spanish research group used the EHFS<sub>CB</sub> scale to describe self-care behaviour in their HF patients over time [39]. Wagenaar and colleagues described a significant change in self-care behaviour (measured with the EHFS<sub>CB</sub>s) after using an educational website [16].

We have also added knowledge about the value of a possible threshold value of 70 for the EHFS<sub>CB</sub> scale. This threshold was described previously by Wagenaar and colleagues [28], who were not able to define a clinically relevant change in EHFS<sub>CB</sub> scale scores, but found that patients with self-care behaviour scoring lower than 70 had a significantly greater number of 18-month all-cause hospitalization compared to patients with a score of  $\geq 70$ . In our current study, we could not perform such an analysis; however, we did observe that the threshold of 70 was meaningful. There was a significant difference in percentages of patients with adequate self-care ( $\geq 70$ ) after an educational intervention by HF nurses. It needs to be further investigated whether such a threshold might be used to tailor patient education or in clinical practice to tailor appropriate educational interventions for specific patient groups.

#### Study limitations

We acknowledged several limitations of the present study. We merged 2 datasets to strengthen the study and during that time the HF guidelines were updated. However, necessary self-care behaviours for HF patients were not changed. Second, the sample size was relatively small, and some analyses were performed using data from only one cohort study. Third, we did not ask patients about relevance and comprehensiveness of the items. Test-retest reliability was not evaluated in the study. But it was evaluated in other language versions and the EHFSB scale was found to be a stable scale in other populations [29, 32], and is not expected to be different in the Hebrew version.

## **CONCLUSIONS**

Our study supports the usability, validity and reliability of the Hebrew version of the EHFSB scale. In research, the Hebrew version of the EHFSB scale can be used to evaluate outcomes of HF management programs or other educational or behavioural interventions in Hebrew-speaking HF patients. Although the scale was developed for research, first experiences in other countries indicate that it also has potential to structure education and counselling to improve self-care in HF patients.

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Table 1: The European Heart Failure Self-care Behaviour Scale: Hebrew version

סולם הענות הטיפול העצמי בחולי אי ספיקת לב

על פי האיגוד האירופאי לאי ספיקת לב  
לפניך מספר הצהרות המתייחסות להרגשתך ולטיפולך באי ספיקת הלב.  
ענה/י על כל הצהרה על ידי סימון המספר המייצג אותך (מתאים לך) ביותר.  
לכל הצהרה יש טווח תשובות בין 1 ל 5 :  
1= אני מסכים לחלוטין , 5 = לא מסכים כלל.  
גם אם את/ה לא בטוח/ה לגבי הצהרה מסוימת, הקף/י את המספר המתאים ביותר להרגשתך.

מסכים לחלוטין				לא מסכים כלל	
1	2	3	4	5	1. אני שוקל את עצמי כל יום
1	2	3	4	5	2. אם קוצר הנשימה שלי מתגבר אני מתקשר/ת לרופא או לאחות המטפלים
1	2	3	4	5	3. אם רגליי נפוחות יותר מהרגיל אני מתקשר/ת לרופא או לאחות המטפלים
1	2	3	4	5	4. אם אני עולה מעל 2 ק"ג במהלך שבוע אחד אני מתקשר/ת לרופא או לאחות המטפלים
1	2	3	4	5	5. אני מגביל/ה את כמות השתייה שלי (לא יותר מ 1.5-2 ליטר/ ליום)
1	2	3	4	5	6. אם אני מתעייף/ת יותר מהרגיל אני מתקשר/ת לרופא או לאחות המטפלים
1	2	3	4	5	7. אני מקפיד/ה על דיאטה דלת מלח
1	2	3	4	5	8. אני לוקח/ת את התרופות שלי בהתאם להוראות
1	2	3	4	5	9. אני מתעמל/ת בקביעות

