

# Psychometric Validation of the Spanish Version of the Caregiver Contribution to Self-Care of Heart Failure Index (CC-SCHF)

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**Background.** The Caregiver Contribution to Self-Care of Heart Failure (CCSCHFI) is a theoretically driven instrument to measure the extent to which caregivers support heart failure (HF) patients to perform self-care. The CC-SCHF measures caregivers' contribution to self-care maintenance and self-care management and caregiver confidence in contributing to heart failure patients' self-care. To date, the CC-SCHF has never been tested in Spanish-speaking populations.

**Aim.** To translate the CC-SCHF from English into Spanish and to test its psychometric characteristics.

**Method.** The study was carried out in Aragon (Spain) using a cross-sectional design through non-probabilistic convenience sampling. For the calculation, the recommendations for this type of study were considered, which indicated recruiting between 5 to 10 participants per item, with a minimum of 200. The sample was  $n = 220$  informal caregivers of patients admitted to the Hospital Clinic Lozano Blesa in Zaragoza (Spain), who met the following inclusion criteria: (1) being the primary caregiver of a person with HF according to the criteria of the European Society of Cardiology (ESC) and being 18 years of age or older

**Results.** The majority of caregivers recruited were women with a mean age of 60.5 years. Educational levels were equally distributed in the sample with a slightly higher (38.2%) primary education subgroup. The majority (70.6%) of caregivers were married with two children (46.4%), did not work (54.1%), and lived with the patient (51.4%). The caregivers spent an average of 8.68 h per day caring for the patient. The CFAs were performed by replicating the three different factorial structures of the selfcare maintenance scale previously tested in other studies. Three separate CFAs, one for each scale (CC self-care maintenance, CC-self-care management and CC-self-confidence), were performed to confirm the dimensionality of the CC-SCHF. The first factor was labelled CC to treatment adherence behaviours, was loaded by 8 items and explained 27.5% of the total variance; the second factor was labelled CC to health promoting exercise behaviours, was loaded by 4 items and explained 10.8% of the total variance. The two factors were significantly correlated ( $r = 0.301$ ,  $p < 0.001$ ).

Caregiver Contribution to Self-Care Maintenance Scale	Factor Loading	
	Factor 1	Factor 2
1. Weigh yourself	0.550	0.288
2. Check your ankles for swelling	0.480	0.179
3. Try to avoid getting sick	0.468	0.086
4. Do some physical activity	0.324	0.511
5. Keep doctor or nurse appointments	0.621	0.117
6. Eat a low-salt diet	0.686	0.356
7. Exercise for 30 min	0.183	0.921
8. Forget to take one of your medicines	0.421	0.288
9. Ask for low-salt items when eating out or visiting others	0.465	0.334
10. Use a system (e.g., pill box) to help you remember your medicines	0.707	-0.017
11. If you had trouble breathing or ankle swelling in the past month, how quickly did you recognize it as symptoms of HF?	-0.191	0.414
12. Reduce the salt in your diet	0.043	0.832
13. Reduce your fluid intake	0.875	-0.187
14. Take an extra water pill	0.754	-0.259
15. Call the physician or nurse	-0.327	0.859
16. How sure were you that the remedy helped or did not help?	0.635	-0.141

Legend : Factor pattern of the Caregiver Contribution to Self-Care of Heart Failure Index (CC-SCHF).

**Conclusion.** There is currently no scale in Spain that measures the contribution of the caregiver of people with heart failure. The CC-SCHF is an easy-to-administer tool that can help informal caregivers and the health care team to identify gaps in self-care, allowing the design of individual plans aimed at expanding knowledge in order to improve their skills.

**Results.** The majority of caregivers recruited were women with a mean age of 60.5 years. Educational levels were equally distributed in the sample with a slightly higher (38.2%) primary education subgroup. The majority (70.6%) of caregivers were married with two children (46.4%), did not work (54.1%), and lived with the patient (51.4%). The caregivers spent an average of 8.68 h per day caring for the patient. The CFAs were performed by replicating the three different factorial structures of the selfcare maintenance scale previously tested in other studies. Three separate CFAs, one for each scale (CC self-care maintenance, CC-self-care management and CC-self-confidence), were performed to confirm the dimensionality of the CC-SCHF. The first factor was labelled CC to treatment adherence behaviours, was loaded by 8 items and explained 27.5% of the total variance; the second factor was labelled CC to health promoting exercise behaviours, was loaded by 4 items and explained 10.8% of the total variance. The two factors were significantly correlated ( $r = 0.301$ ,  $p < 0.001$ ).



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