

Table I – Summary of articles selected for review

Author	Year	Sample characteristic	Intervention	Result
Ducan <i>et al.</i> [10]	2014	39 patients with LVEF <40% and stable medication for 30 days were divided into a control group (20) and a group with physical exercise intervention (22).	Both groups received educational guidance on HF for 12 weeks. The intervention group performed 24 weeks of aerobic exercise for 30 minutes 3 days a week and strength exercises 2 days a week. During the first 12 weeks, the exercise group received weekly goals, and the remaining sessions were performed independently.	The results indicated that the group that performed exercise improved their self-efficacy in performing physical exercise and improved their mood.
Pressleer <i>et al.</i> [11]	2010a	414 participants divided into 3 groups: HF, chronic degenerative disease without HF and control group.	All groups underwent a battery of neuropsychological tests and assessment of comorbidity, blood pressure, oxygen saturation, depressive symptoms and sociodemographic interview.	The group with HF showed low results in executive function, psychomotor speed and memory. The severity of HF was associated with greater cognitive deficit.
Pressleer <i>et al.</i> [12]	2010b	166 patients with chronic systolic HF and LVEF of 40%	Tests were applied to assess the patients' cognitive function, such as: working memory, global cognitive function, language proficiency, visual-spatial ability and executive function. Telephone calls were made 12 months after the start of the study to monitor the sample.	The results indicated that lower LVEF and worse memory results were predictors of mortality. Lower SBP and DBP and worse results in executive function, working memory and psychomotor speed also had predictive results of mortality.
Abdelbasset <i>et al.</i> [13]	2019	69 patients with mild to moderate depression and systolic HF NYHA II and III with reduced ejection fraction <40% divided into 3 groups: Group I low to moderate intensity exercises; Group II continuous moderate intensity exercises, and Group III did not perform exercises.	Group I – 3x a week, lasting 20 to 30 minutes and intensity 40% to 50% of HR max in the first 6 weeks and 30 to 40 minutes of 50% to 70% of HR max in the last 6 weeks. Group II – 3x a week, lasting 40 to 50 minutes of moderate aerobic exercise and intensity of 60 to 70% of HR max for 12 weeks.	The results showed that both groups I and II that performed physical exercise reduced their depression levels without any significant difference between them.

			Group III - did not perform exercise. The PHQ-9 questionnaire was applied to the groups at the beginning of the study, after 6 months of the intervention and at the end.	
Bandeira <i>et al.</i> [14]	2020	79 elderly patients with HF	Cross-sectional study that evaluated the cognitive function of patients with HF through the Mini Mental State Examination (MMSE)	39.2% of patients had impaired cognitive function.
Abdelbasset & Alqahtani [15]	2019	46 participants with NYHA II and III HF, and mild to moderate depression divided into 2 groups: a control group and the other performed moderate aerobic exercise.	3 x a week, lasting 30 minutes at 60 to 70% of HR _{max} for 12 weeks.	The group that exercised had a greater decrease in depression.
Redwine <i>et al.</i> [16]	2020	69 patients with symptomatic stage C HF and a mean age of 65 years	Patients were divided into 3 intervention groups: Tai Chi Chuan, resistance exercise, and control group.	The groups that performed Tai Chi Chuan and resistance exercises showed greater effectiveness in improving cognitive function.

HR_{max} = maximum heart rate; LVEF = left ventricular ejection fraction; HF = heart failure; SBP = systolic blood pressure; DBP = diastolic blood pressure; PHQ-9 = Patient Health Questionnaire; NYHA = New York Heart Association