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 **Heart Failure****PREDICTORS OF ADHERENCE TO EXERCISE TRAINING IN THE HEART FAILURE: A CONTROLLED TRIAL INVESTIGATING OUTCOMES OF EXERCISE TRAINING STUDY**

ACC Moderated Poster Contributions

McCormick Place South, Hall A

Monday, March 26, 2012, 9:30 a.m.-10:30 a.m.

Session Title: Delineating Exercise-related and Hemodynamic Abnormalities in Chronic Heart Failure

Abstract Category: 14. Heart Failure: Clinical

Presentation Number: 1225-525

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**Background:** Poor adherence to exercise training is a common problem in clinical trials and in practice. The purpose of this study was to identify predictors of adherence to exercise training in the Heart Failure: A Controlled Trial Investigating Outcomes of Exercise Training (HF-ACTION) study.

**Methods:** Exercise adherence was defined as the total number of minutes/week of supervised and home exercise training. Health status and psychosocial variables were examined as univariate predictors of exercise adherence. A clinical model of the minutes/week endpoint was developed by considering over 50 clinical, demographic and exercise testing variables as potential predictors. A bootstrapped backwards selection algorithm was performed for selection of the final model. Missing data among the covariates were filled in using a multiple imputation procedure.

**Results:** Data from 1,172 study participants were included in the analysis. Health status and psychosocial variables had very little predictive power for adherence (Table). The adjusted R-square for the final clinical model was 0.14 for months 1-3 and 0.21 for months 10-12. The single strongest predictor in the model for months 10-12 was the total minutes of exercise per week in months 1-3.

**Conclusion:** Despite examining numerous clinical, psychosocial and exercise variables, our ability to predict adherence to exercise training is very limited. Baseline variables, in particular, appear to be of limited value in screening for adherence to exercise training.

Table. Univariate analysis of health status and psychosocial variables as predictors of exercise adherence

	R-square	
	Months 1-3	Months 10-12
KCCQ overall summary score	0.010	0.006
Beck Depression Inventory II score	0.007	0.005
Motivational Readiness for Change Stage	0.005	0.021
Self-efficacy score	0.0007	0.006
Adherence Barrier Scale score	0.005	0.007
KCCQ, Kansas City Cardiomyopathy Questionnaire		