Comparing Mixed-Sex, Women-Only, and Home-Based Cardiac Rehabilitation Models: Patient Characteristics, Utilization, and Outcomes

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Abstract

Background: This study compared: characteristics, program utilization, and outcomes in women electing to participate in mixed-sex, women-only, or home-based cardiac rehabilitation (CR), and a matched sample of men.

Methods and Results: In this retrospective study, electronic records of CR participants in Toronto who are offered choice of program model between January 2017-July 2019 were analyzed; clinical outcomes were assessed at intake and post-6-month program, and analyzed using general linear mixed models. There were 1181 patients (727 women [74.7% mixed, 22.0% women-only, 3.3% home-based]; 454 age and diagnosis-matched men) who initiated CR; 428 (58.9%) women completed the programs. Women in home-based were significantly younger than women-only (61.3±16.9 vs 68.1±12.1, \(P=.034\)), there were significantly more women who were not working in women-only than mixed-sex (80.4% vs 64.1%; \(P=.009\)), and cardiorespiratory fitness among women was higher at initiation of mixed-sex than women-only (\(VO_{2\text{peak}}\) 5.1±1.5 vs 4.6±1.3 ml/kg/min; \(P=.007\)). Session adherence was significantly greater with mixed-sex (58.8±28.9% sessions attended/25) than women-only (54.3±26.3% sessions attended/25; \(P=.046\)); program completion was significantly lower with home-based (33.3%) than either supervised model (59.7%; \(P=.035\)). There were significant improvements in high-density lipoprotein (\(P=.001\)) and quality of life (\(P=.001\)), and lower depressive symptoms (\(P=.030\)) as well as waist circumference (\(P=.001\)) with mixed-sex only. \(VO_{2\text{peak}}\) was significantly higher at discharge in mixed-sex than women-only (estimate=1.67, standard error=0.63, 95% confidence interval=0.43–2.91).

Conclusions: Participation in non-gender-tailored women-only CR was not advantageous, and may be less accessible. Further research is needed to investigate offering remote women-focused sessions or peer support.