

## **Abstract**

**Thesis:** Efficacy of an Interactive Education Model within Center Based Cardiac Rehabilitation and Hybrid Home Based Rehabilitation Models Compared with a Traditional Education Model

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**Purpose:** To develop the protocol for a hybrid home-based cardiac rehabilitation model within Indiana University Health medical system. **Methods:** Participants were referred to cardiopulmonary rehabilitation (CR) by a physician. During each participant's orientation, they were assigned into one of three research groups: an onsite traditional print education CR group as the control, an onsite online education group, and a hybrid home-based (HHBCR) group whose education was entirely the online education format. Patients who were unable to attend onsite CR were assigned to the HHBCR group which included online interactive education and home exercise sessions. 16 patients were initially recruited, and 7 patients completed CR to provide a framework for developing a HHBCR program. Data were collected before and after CR and included scores on several questionnaires: CADE-Q2, PHQ-9, Rate Your Plate, and a 6-minute walk test. **Results:** 2 patients completed onsite traditional CR, 3 patients completed online education onsite, and 2 patients completed 30-day outcomes for hybrid home-based CR with online education. The control group with print education, had increases of 9-11 points between their CADE-Q2 pre-assessment and post-assessment. The onsite online education group showed changes of -6-28 between their CADE-Q2 pre-assessment and post-assessment. The hybrid home-based online education group had increases of 4-5 points between their CADE-Q2 pre-assessment and post-assessment. All patients increased their 6MWT score pre-post assessment except for one patient in the

hybrid home-based interactive education group. Conclusion: Both traditional and online education models appear to be effective for CR patients, showing that it is important to be adaptable in order to provide strong health care services to patients in ways that are most effective and impactful to them. The hybrid-home-based care model could provide access to rehabilitation services for patients who cannot attend onsite CR for any reason. Future work in this area is necessary to continue to develop protocols that are effective and accessible for patients and clinicians alike.