Oral Communication
OC-883

Sustaining Physical Activity Beyond Cardiac Rehabilitation: A Challenge for Global Rehabilitation Systems

Topic: Telerehabilitation

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BACKGROUND

Adherence to outpatient rehabilitation home exercise programs and prescribed ongoing physical activity (PA) has been reported to wane over time. Devices that facilitate remote patient monitoring have the potential to clearly identify adherence, or not, to prescribed home therapies and exercise. Cardiac rehabilitation (CR) is a structured program designed to improve cardiovascular health and promote long-term physical activity (PA) adherence. There is limited evidence on how well PA levels are maintained post CR, particularly in real-world settings with continuous PA monitoring. This study fills a critical gap by providing objective, continuous PA monitoring data in CR patients before and after discharge, highlighting the challenges of long-term PA adherence. This study investigates PA patterns during and after CR, emphasizing the need for inclusive and equitable post-CR support systems. Aligning with the ISPRM 25 theme, this research underscores the global challenge of sustaining PA and its relevance to the United Nations Sustainable Development Goal of good health and well-being.

METHODS

A two-phase prospective observational study was conducted in 11 patients undergoing standard (~36-sessions spanning over 3-4 months: Phase 1) CR program at NYU Rusk Rehabilitation and six months post discharge (Phase 2). Daily PA was monitored using Fitbit activity trackers, recording step counts, sedentary time, light, moderate, and vigorous intensity PA duration. As part of the standard CR program, patients were educated on the importance of PA throughout the program and at discharge. Patients were encouraged to be physically active in the community.

RESULTS

The nonparametric Wilcoxon signed-rank test revealed statistically significant differences in sedentary time and time spent in light, moderate, and vigorous-intensity activity between rehabilitation and non-rehabilitation days. Additionally, significant differences in sedentary time, as well as moderate and vigorous-intensity activity, were observed between Phase 1 and Phase 2.

CONCLUSION

Cardiac rehabilitation facilitates adherence to recommended PA levels. PA significantly declines on non-rehab days and following program completion. Promoting long-term PA maintenance through remote monitoring, behavioral coaching, and support is indicated. Results inform future research on hybrid CR and post-CR interventions to sustain PA reduce cardiac events and promote health

Statement of Disclosures

None

Doi: 10.5606/archisprm.2026.OC-883

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