Remote Patient Monitoring and Telehealth

# Willingness of non-participants of conventional cardiac rehabilitation to participate in cardiac telerehabilitation: results of semi-structured interviews

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#### Introduction

Cardiac rehabilitation (CR) is considered a Class IA recommendation in secondary prevention of ischemic heart disease and heart failure. Participation rates are low however. Telerehabilitation (TR) is widely studied to overcome known barriers. However, the willingness of patients that refuse centre-based CR to participate in TR is scarcely studied. This study aims to assess the willingness to participate in TR in patients that refuse conventional centre-based CR, as well as the main barriers to participation in CR and TR.

### Methods

Patients were screened during hospitalisation on the cardiology, cardiac surgery and cardiac intensive care departments. Patients that were eligible for CR but refused to participate were asked to participate in the study. A semi-structured interview consisting of 18 questions was performed during hospitalisation. After signing an informed consent, interviews were conducted, recorded and analysed. Additional data was extracted and analysed from the hospital electronic health records.

### Results

A total of 20 patients were included. Mean age was 69.6 years (± 10), 17 patients were male (85%), cardiac pathologies were ischemic heart disease (10), heart failure (5) and arrhythmia (5). Six patients (30%) owned a smartphone. Primary reasons not to participate in conventional CR were transport issues (7), lack of motivation (5), cost (3), already being physically active at home (2), or other reasons (3).

Eight patients (40%) indicated that, if a programme existed, they would participate in a TR programme.

In the group of patients that would not want to participate in TR (n = 12), 10 said lack of digital literacy was a reason, 9 said not having the needed technology (either a computer, a smartphone or both) was a reason. Five said that lack of motivation was a reason and 3 didn't see the utility of doing rehabilitation at home or rehabilitation at all. The most important reason not to participate was a lack of digital literacy in 6 patients, and a lack of motivation or not seeing the utility of rehabilitation in 6 patients.

In the group of patients that would participate in TR, all 8 said that not needing transport was an advantage, 2 indicated that being able to perform rehabilitation on flexible hours was an advantage. All 8 indicated that not needing transport was the main advantage of TR for them. The most important barrier for this group was not being fluent with computers and/or smartphone (3).

## Conclusions

Of a group of patients not willing to participate in conventional CR, 40% would be prepared to participate in TR. Lack of digital literacy and lack of motivation were the main reasons not to participate in TR. Not needing transport was seen as the main advantage of TR. Further research in larger populations will be needed to confirm these results.