A Cloud Follow-up Platform for Cardiac Rehabilitation with "Super Jogging" as The Core

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Introduction

The Chinese Guidelines for Cardiac Rehabilitation and Secondary Prevention suggest that exercise rehabilitation should be taken as the core of cardiac rehabilitation after PCI. The first draft of cardiac rehabilitation case management was constructed according to the Chinese Expert Consensus on Graded Diagnosis and Treatment of Exercise Rehabilitation of Patients with Chronic Coronary Syndrome. At present, there is no information platform to support the follow-up management of cardiac rehabilitation of patients after PCI.

Method

First, a 6-person nursing information team was established, and 12 information requirements for the cloud follow-up platform were collected. Then, the new cardiac rehabilitation process after PCI was combed, and five information modules were formed. After the system was implemented, the Quality-of-Life Scale, the Coronary Heart Disease Self-Management Scale, the Self-Made Satisfaction Questionnaire, and the participants' blood glucose, blood pressure, blood lipids, and weight were assessed to evaluate the feasibility, usefulness, and satisfaction of the system.

Results

Five information modules of the cloud follow-up platform, on the one hand, are used for information collection, induction, analysis and summary, on the other hand, to make exercise prescription according to the cardiopulmonary exercise test. The part user interface of the "PCI Heart Rehabilitation Cloud Follow-up Platform" as showed in Figure 1. Satisfaction of clinical nurses with cloud follow-up platform was 88.5%, and patients' satisfaction with cloud follow-up platform was 89.9%. In the 12 patients after PCI in the preliminary experiment, the blood sugar, blood pressure, blood lipid and weight of the patients were statistically significant ($P < 0.05$), and the patients' quality of life scale score had statistical difference before and after the coronary heart disease self-management scale score ($P < 0.01$).

Figure 1 The user interface

Conclusions

The platform improved the outcomes of cardiac rehabilitation in post-PCI patients, increased self-management behavioral compliance, and achieved greater satisfaction.

Acknowledgments

Thanks to the nursing information theory training teachers: Polun Chang, Qiaoling Xu, thanks to help the article calibration friends: Kaixin Li, Zhenzhen Cai.

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Abstract

We reviewed the literature and used the Microsoft office 2019 drawing tool to design a cloud follow-up platform for cardiac rehabilitation after percutaneous coronary interventional (PCI) therapy.

Keywords. PCI, super-jogging, cardiac rehabilitation, follow-up platform

1.Introduction

The Chinese Guidelines for Cardiac Rehabilitation and Secondary Prevention suggest that exercise rehabilitation should be taken as the core of cardiac rehabilitation after PCI[1]. The first draft of cardiac rehabilitation case management was constructed according to the Chinese Expert Consensus on Graded Diagnosis and Treatment of Exercise Rehabilitation of Patients with Chronic Coronary Syndrome [2]. At present, there is no information platform to support the follow-up management of cardiac rehabilitation of patients after PCI.

2. Methods

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