Bridging the gap from hospital discharge to cardiac rehabilitation using the intervention mapping approach (BRIDGE2CARE)


DOI
10.1093/eurjpc/zwab061.426

Publication date
2021

Document Version
Final published version

Published in
European journal of preventive cardiology

Citation for published version (APA):
Bridging the gap from hospital discharge to cardiac rehabilitation using the intervention mapping approach (BRIDGE2CARE)

Keessen P.1; Van Duijvenbode ICD1; Latour CHM1; Kraaijenhagen RA.2; Janssen V.3; Jorstad HT.; Scholte Op Reimer WJM4; Visser B.1

1Amsterdam University of Applied Sciences, Centre of Expertise Urban Vitality, Faculty of Health, Amsterdam, Netherlands (The)
2Amsterdam University of Applied Sciences, Cardiovaal Cardiac Rehabilitation, Amsterdam, Netherlands (The)
3Leiden University Medical Center, Department of Cardiology, Leiden, Netherlands (The)
4Amsterdam UMC - Location Academic Medical Center, Department of Cardiology, Amsterdam, Netherlands (The)

Funding Acknowledgements: Type of funding sources: Public Institution(s). Main funding source(s): Dutch Research Council

INTRODUCTION: Cardiac rehabilitation (CR) is the cornerstone of secondary prevention. After hospital discharge, patients have to wait for participation in CR while often feeling overwhelmed by their cardiac event and in need of tailored information and support.

PURPOSE: The objective of this study was to develop a remote (digital) intervention to bridge the gap from hospital discharge to CR.

METHODS: We developed an intervention by completing the first three steps of the intervention mapping protocol. Step 1: identification of information- and support needs from the literature and semi-structured interviews. Step 2: Describing performance objectives for the intervention and selecting determinants. Step 3: Generation of program themes and theory based change methods.

RESULTS: (Step 1) The following information- and support needs were identified from the literature (n = 33) and semi-structured interviews (n = 22): information about pathology and intervention, medication and side effects, daily physical activities, psychological distress, body signals and social support. Advanced communication and pedagogical skills of the health care provider and the ability to build trust were described as important prerequisites for the intervention. (Step 2) The following performance objectives were formulated: (1) Patients gain knowledge on how their cardiac illness and procedure affects their bodies and health, (2) Patients gain knowledge about medication and side effects, (3) Patients know which daily physical activities they can and can’t do after hospital discharge and are physically active, (4) Patients and informal caregivers can deal with psychological distress and know how to discriminate between harmful and harmless body signals. Objectives were described per determinant (knowledge, skill, attitude, social influence, self-efficacy and outcome expectation). (Step 3) A comprehensive remote intervention was developed using theory based coaching strategies, a digital patient platform and information videoclips.

CONCLUSION: This study describes the information and support needs of patients after cardiac hospitalization and offers a remote intervention that bridges the gap from hospital discharge to CR.

Abstract Figure. BRIDGE2CARE
**Bridging the gap from hospital discharge to cardiac rehabilitation (BRIDGE2CARE)**

**Hospital discharge**
- Coach assesses information and support needs of patient, introduces patient to eHealth portal and helps patient navigate to find tailored information and gain support from professional.

**Intake Coach CR**
- Hospital discharge
- eHealth platform

**Week 1-3**

**Period of uncertainty at home**

**Coaching (week 1, 2 and 3)**
- Providing tailored information
- Reducing psychological distress
- Stimulating self-efficacy and daily physical activity

**Health information video clips**
- Medication + side effects
- Pathophysiology and anatomy
- Psychological wellbeing
- Informal caregiver/ Social support

**Personal platform patient**
- Discussion board
- Questionnaires
- Monitoring progress
- Fellow patients

**Week 4-6**

**Patient continues with exercise based cardiac rehabilitation at the center or remotely.**
- Patient is well informed, feels supported and confident.

**Week 6-12**

**Patient completes cardiac rehabilitation and has sufficient knowledge, skills and self-efficacy.**