

Using case studies to identify barriers and facilitators for implementing lifestyle interventions in patient care

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Discussion

Introduction: implementation research

Q The “usual” way to do it

Q Research problems:

- How to understand what is going on ‘in real life’?
- Context is crucial and full of ‘confounders’
- Control
- Effectiveness of implementation strategies

What is case study research? (1)

A case study is an empirical inquiry that: investigates a contemporary phenomenon in depth and within its real-life context,

boundaries between phenomenon and context are not clearly evident.

Case study topics: projects, decisions, communities, neighbourhoods, partnerships, organizations, implementation processes, organizational change.

(Yin, 2009)

What is case study research? (2)

- Many more variables of interest than data points
- Relies on *multiple sources of evidence*
- Theoretical propositions guide data collection and analyses

(Yin, 2009)

What is case study research? (3)

Different applications of a case study:

- To *explain* presumed causal links in real-life interventions
- To *describe* an intervention and the real-life context
- To *illustrate* certain topics within an evaluation
- To *enlighten* the situation when the intervention being evaluated has no clear single set of outcomes

Strengths

- Generalizable to theoretical propositions (not to populations or universes)
- Insight in “how” and “why” in real-life context
- Case studies can complement experiments (or other studies)

Limitations

- Convince others of scientific rigor
- They take a long time
- You can't establish causal relationships / effectiveness

Demonstration project

Implementing Lively Legs: a multiple case study

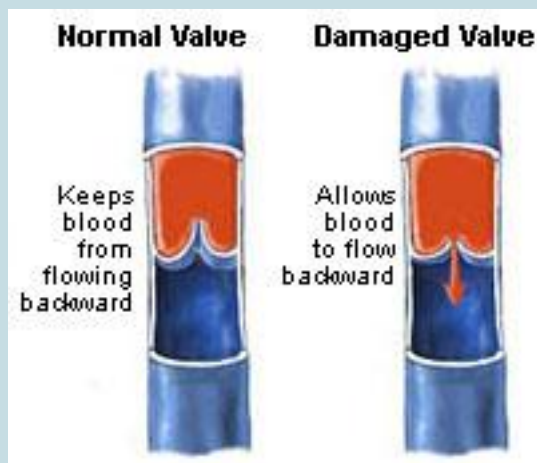
Implementation of a nurse-led lifestyle counseling program in venous leg ulcer patients 2009-2010

Research team

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What are venous leg ulcers?

- Increased pressure of blood in veins => swelling => damaged skin
- Chronic condition
- 200.000 patients in the Netherlands



Patient Characteristics

- 66 years (27-91 years)
- 60% female
- Average Body Mass Index: 30 (18-53)
- Body Mass Index <25: 24%



Previous studies

- Q Patients experience many problems
- Q Low adherence to a healthy lifestyle in venous leg ulcer patients
- Q Usual care does not address these topics sufficiently
- Q Systematic development of the Lively Legs program
- Anticipated implementation in development

The Lively Legs program

- Trained nurse as health counselor
- 4 individual counseling sessions
- Assessment
- Motivational Interviewing
- Goal setting
- Take home assignments

Objective research project

- Q To identify barriers and facilitators for implementing the Lively Legs program
- Q To develop an implementation plan



Methods

- Multiple case studies
- Five cases, five regions
 - Case 3 & Case 5 : outpatient clinic
 - Case 1 : homecare
 - Case 2 & 4 : outpatient clinic and homecare
- Focusgroups, interviews, questionnaires, nurses-registration, patient files, site visits

What did we do?

-*Prepare* the implementation:

- Identify potential barriers and facilitators for change
- Develop implementation strategies
 - Link factors ↔ strategies

-*Implement* the Lively Legs program

-*Evaluate* the implementation



Prepare the implementation

- Barriers and facilitators
- Choosing implementation strategies



Facilitators for implementation

Patients

- positive about counseling, effective on behavior change & wound

Nurses

- positive about content and effect of the program
- positive about tailoring program to patients needs
- want to be educated in behavior change
- opportunity to meeting colleges in the region

Dermatologist

- positive about effect of the program, perceived need

Organization

- more cooperation possible in the region (to give it a boost)
- more patients will be referred
- extra task & finance for home care organizations
- no major financial or organizational risks

Barriers for implementation

Patients

- Unclear where majority of patients could be recruited (no registration)

Nurses

- Uncertainty about available nursing time, consultation room
- Lack of knowledge/skills in behavior change / delivering the program

Dermatologist

- Some have other priorities, doubts about who benefits most

Organization

- No standardized care process – and/or regional treatment guidelines
- Competition between healthcare organizations (homecare)
- Outpatient clinics: extra task without extra reimbursement
- Size of a region (homecare)
- Change of managers (in 4 out of 5 outpatient clinics)

A question for you

- When you consider the initial barriers and facilitators for implementation...
- ...What kind of implementation strategies would you suggest? And why?
- ***Discuss this in groups of 4-5 persons (10 minutes)***

Linking factors to strategies (1)

Barriers & facilitators	Implementation strategy
Uncertainty about sufficient nursing time	Agreements with management on (extra) nursing time
Knowledge and skills of nurses	<p>Training Lively Legs</p> <p>Training Lively Legs after implementation (½ day)</p> <p>One practice visit by researchers</p> <p>Website with program materials and information</p> <p>Forum on website for questions and feedback</p> <p>Ask researchers for support</p>
No standardized care process - regional treatment protocol	<p>Discuss, decide and communicate the referral procedure in team</p> <p>Sending a letter to external referrers with information program</p> <p>Hand out information leaflet to referrers</p> <p>Determine referral procedure with external referrers (personal visit by nurse)</p> <p>Hand out cards with lifestyle advices and referral procedure</p> <p>Publish information on own website / local paper about program</p> <p>Inform “others” about lifestyle in leg ulcer patients</p>

Linking factors to strategies (2)

Barriers & facilitators	Implementation strategy
Unclear where majority of patients could be recruited	Monitor patient recruitment Monthly feedback on patient recruitment Screening instrument
Extra task without reimbursement BUT: -More patients will be referred to outpatient clinic or homecare -possible to test the program without major financial or organizational risks	No strategies
Change of manager (in 4 out of 5 outpatient clinics)	Limited role in implementation plan; key role nurse
Size of a region is barrier (when delivered by homecare)	Start in own homecare team and decide how to cope
Competition between healthcare organizations	Determine referral procedure with external referrers (this was also discussed in focus group)

Results evaluation implementation Lively Legs

-Was the implementation “successful”?

-How and why were implementation strategies effective or not?

-What are barriers and facilitators for implementing Lively Legs?

Was the implementation successful?

Perceived implementation success (scale 1-10):

range 4.9 – 7.0 between cases

Patient recruitment: total n=53 patients

- 1 new patient/month”: 2 cases *yes*; 1 case *partly*; 2 cases *no*
- Outpatient clinics higher recruitment

Program adherence:

- adequately;
- variation in frequency and duration;
- variation in delivering certain elements

How and why were implementation strategies effective or not?

Variation in delivery of strategies (implementation fidelity):

- range 4-14 strategies

Carried out most/valued most: training + agreements on nursing time

Not helpful: monitor patient recruitment, forum website

Not carried out: informing colleagues and referrers

But: the reason why varied between cases!

What are barriers and facilitators for implementing Lively Legs?

- Difficulties to reach and recruit patients, except when:
 - High concentration of patients (number of new patients per month)
 - Own practice hours nurses
 - Not being dependent of others for referrals
 - Standardized care process (designated step)
- Dedicated nurses & sufficient nursing time
- Working hours nurse per week
- Content of counseling (what was discussed)
- Evident need for a clear regional treatment protocol

Conclusion

- Q Nurses were able to deliver the program adequately
- Q Especially at the outpatient clinic
- Q Nurses and patients were very satisfied
- Q Use and effect of implementation strategies varied
- Q The main influencing determinants for implementing Lively Legs are:
 - Selecting dedicated nurses and facilitating them with sufficient nursing time
 - Nurses' coordination of the (standardized) care process and patient recruitment
- Q Integrate lifestyle counseling in regular care / regional treatment protocol

Discussion

- Q The value of using case studies:
 - some patterns but also differences between cases => context is crucial!
 - No insight in effectiveness of strategies. BUT:
 - How and why implementation was (not) successful

- Q How do different sources of information relate to each other? (pre – post implementation)

- Q How to move forward?