

Barriers and facilitators assessment instrument

Introduction, instructions, and instrument

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1 Introduction

Implementation of innovations is a difficult process. Knowledge about barriers and facilitators to the innovation is important. This was reason for the Centre for Quality of Care Research (WOK), Radboud University Nijmegen Medical Centre,¹ to develop an instrument to measure barriers to and facilitators for improvement of patient care, with a special focus on preventive care.

The original questionnaire was in Dutch. This current document gives some information on the instrument's development and contains the English version.

Reference

This instrument, also the English version, should be referred to as:

Peters MAJ, Harmsen M, Laurant MGH, Wensing M. Ruimte voor verandering? Knelpunten en mogelijkheden voor verandering in de patiëntenzorg [Room for improvement? Barriers to and facilitators for improvement of patient care]. Nijmegen: Centre for Quality of Care Research (WOK), Radboud University Nijmegen Medical Centre, 2002.

Papers who refer to the instrument

By searching the internet, several papers and books can be found who refer to the Barriers and Facilitators Assessment Instrument.

A review who included the instrument is written by [Chaudoir et al. \(2013\)](#).

Other languages

There are also Norwegian and Swedish versions of the instrument. These can be assessed through communicatie.igh@radboudumc.nl.

¹ Current: Scientific Center for Quality of Healthcare (IQ healthcare), Radboud university medical center

2 Methods

The barriers and facilitators for change were based on a literature study and an expert panel consensus procedure. Items found were divided in four categories: 1) innovation characteristics, 2) care provider characteristics, 3) patient characteristics, and 4) characteristics of the organisational, social, political and societal context. The items were translated into questions and the instrument was tested.

We conducted several psychometric tests during the development of the questionnaire (between brackets the criteria):

- response ($\geq 60\%$) and item-response ($\geq 90\%$),
- percentage (fully) (dis-)agree ($\geq 10\%$ and $\leq 90\%$) and inter quartile range (≥ 1).

If an item didn't meet two or more criteria, then it was not included in the questionnaire.

In the end, we also calculated the Cronbachs' alpha's; these were:

- Innovation: 0.65
- Professional: 0.63
- Patiënt: 0.68
- Context: 0.66

A total of 27 items remained. The final instrument was used in twelve projects and proved to be useful. It showed different barriers and facilitators to the different projects (see table 1), what proves the relevance of a barriers and facilitators analysis. The use of a standard instrument makes it possible to compare between different projects.

More information is to be found in the Dutch version of the report.

Table 1: Questionnaire for perceived barriers for change (Peters et al. 2002)²

Comparison of barriers for change across different innovations and settings requires a standardized measurement instrument. A validated questionnaire was developed to identify perceived barriers for change, and then applied in 12 different implementation studies in the Netherlands. Literature analyses and focus groups with implementation experts were used to identify possible barriers for change. Validation studies were performed to test psychometric characteristics of the questionnaire. A study on prevention of cardiovascular diseases in general practice ($n = 329$ GPs) showed that perceived barriers, as measured with the questionnaire, explained 39% of the self-reported clinical performance. The questionnaire includes questions on characteristics of the innovation, the care provider, the patient and the context. The questions on patients and contexts particularly focused on the implementation of preventive activities. As examples, findings from three studies are presented below (percentages).

	Prevention of cardiovascular diseases (n = 190 GPs)	Management of lower urinary tract symptoms in men (n = 40 GPs)	Management of anaemia in pregnant women (n = 160 midwives)
Innovation characteristics (%)			
Compatibility	8	83	8
Time investment	52	75	7
Specificity, flexibility	12	70	15
Didactic benefit	11	53	2
Attractiveness	15	68	4
Care provider characteristics			
Attitude, role perception	15	78	6
Knowledge and motivation	13	80	9
Doubts about the innovation	27	80	17
Life style, working style	40	28	12
Education	15	-	-
Involvement	2	55	13
Patient characteristics			
Age	17	-	-
Etnicity	68	-	-
Financial situation, socioeconomic status	52	-	-
Number of patient contacts	62	-	-
Health status	58	-	-
Motivation to change	25	-	8
Context characteristics			
Group norms, socialisation	18	58	24
Reimbursement, insurance system	61	68	4
Laws, regulations	34	-	10
Opening hours of practice	27	38	-
Supporting staff	70	-	-
Facilities	22	-	-
Practice building	38	-	-

² Table derived from: Wensing M, Grol R. Methods to identify implementation problems. In: Grol R, Wensing M, Eccles M. Improving patient care: The implementation of change in clinical practice. London: Elsevier Limited, 2005.

3 Instructions for use

This instrument consists of general questions about the implementation of guidelines or innovations. These questions can be changed in such a way that they address the specific guideline or innovation, and time of measurement. See box 1 for some examples.

Some questions can be asked in any situation, and questions 17-27 can be asked in case of preventive care. Additional questions can be asked about respondent characteristics or the setting in which the care provider is working. Also questions about items derived from behavioural (or other) theories can be added. This is all up to the researcher.

In each question '*directive or innovation*' is typed italic. This means you can fill in the name of the guideline or directive or the name/description of the innovation here. Between brackets () is stated the item's name.

Some questions are formulated positive, others negative. To find out which items are barriers, you need the percentages disagree and fully disagree of positive questions (1-3, 16) and the percentage agree and fully agree of negative questions (4-15, 17-27) (this means you have to recode). If you want, you can also add an extra option 'not applicable' to the answering scale.

Question before introducing the guideline or innovation:

- I think working according to this guideline is going to be too time consuming.

Question after introducing the guideline or innovation:

- Working according to this guideline is too time consuming.

Box 1: Examples of questions in different situations

If you use the instrument, we would like to get information about it, like where you found the information about the instrument, and for which project/subject you use the instrument. This information can be send to communicatie.igh@radboudumc.nl.

4 The Barriers and Facilitators Assessment Instrument

Instructions for filling in the questionnaire

Short description of the motivation for and aims of the study

Request to fill in the questionnaire

Filling in the questionnaire takes about 15 minutes

Please read the instructions, before filling in the questionnaire:

- Read each question, including the answering options, before giving an answer;
- Choose the answer that is most applicable to your situation.
- Choose only one answer, unless stated differently.
- Fill in this questionnaire only for yourself and your situation.

Tell who carries out the study and who is contact person.

Tell how to send the questionnaire back, to whom and within what time pad.

Thank you for your response!

Barriers to and facilitators for implementation – General

Give a short introduction to the guideline/directive or innovation

Following are a couple of statements about working according to the *directive or innovation*. We would like to know whether you agree with the statement or not and in what degree. If you do not have a strong opinion, please try to find out if it is more like ‘agree’ or more like ‘disagree’. If you really do not know, you can select the option ‘do not agree nor disagree’.

	Fully dis- agree	Dis- agree	Do not agree nor dis- agree	Agree	Fully agree
1. This ' <i>directive or innovation</i> ' leaves enough room for me to make my own conclusions. <i>(innovation: specificity, flexibility)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. This ' <i>directive or innovation</i> ' leaves enough room to weigh the wishes of the patient. <i>(innovation: specificity, flexibility)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. This ' <i>directive or innovation</i> ' is a good starting point for my self-study. <i>(innovation: didactic benefit)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I did not thoroughly read nor remember the ' <i>directive or innovation</i> '. <i>(care provider: involvement)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I wish to know more about the ' <i>directive or innovation</i> ' before I decide to apply it. <i>(care provider: knowledge, motivation)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I have problems changing my old routines. <i>(care provider: life style, working style)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I think parts of the ' <i>directive or innovation</i> ' are incorrect. <i>(care provider: doubts about innovation)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I have a general resistance to working according to protocols. <i>(care provider: attitude, role perception)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Fully dis- agree	Dis- agree	Do not agree nor dis- agree	Agree	Fully agree
9. Fellow doctors (general practitioners) do not cooperate in applying the ' <i>directive or innovation</i> '. <i>(care provider: group norms, socialisation)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Other doctors or assistants do not cooperate in applying the ' <i>directive or innovation</i> '. <i>(care provider: group norms, socialisation)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Managers/directors do not cooperate in applying the ' <i>directive or innovation</i> '. <i>(care provider: group norms, socialisation)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Patients do not cooperate in applying the ' <i>directive or innovation</i> '. <i>(patient: motivation to change)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Working to the ' <i>directive or innovation</i> ' is too time consuming. <i>(innovation: time investment)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. The ' <i>directive or innovation</i> ' does not fit into my ways of working at my practice. <i>(innovation: compatibility)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Working according to this ' <i>directive or innovation</i> ' requires financial compensation. <i>(context: reimbursement, insurance system)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. The lay-out of this ' <i>directive or innovation</i> ' makes it handy for use. <i>(innovation: attractiveness)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Barriers and facilitators for implementation – preventive care

Following a couple of questions about implementation of preventive care.

It is difficult to give preventive care ... <i>(context: supportive staff)</i>	Fully dis- agree	Dis- agree	Do not agree nor dis- agree	Agree	Fully agree
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. ... if there is not enough supportive staff. <i>(context: supportive staff)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. ... if instruments needed are not available. <i>(context: facilities)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. ... because the timing of the preventative care is awkward. <i>(context: opening hours of practice)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. ... if physical space is lacking (e.d. consulting room). <i>(context: practice building)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. ... because I am not trained in giving preventive care. <i>(care provider: education)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. ... because I have not been involved in setting up the preventive care. <i>(care provider: involvement)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. ... to patients with a different cultural background. <i>(patient: ethnicity)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. ... to patients who seem healthy. <i>(patient: health status)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. ... to patients with a low socio-economic status. <i>(patient: financial situation, economic status)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. ... to older patients (60+). <i>(patient: age)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. ... to patients rarely visiting the practice. <i>(patient: number of patient contacts)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>