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Patient Empowerment: A Measure of Patient Empowerment Received by the German Health Card

Katharina Spitalewsky[a], Stefan Skonetzki[b], Maria Pritsch[c], Christian Kohl[d], Petra Knaup[d]

[a] *Medical Informatics, University of Heidelberg, Germany*
[b] *Institute for Medical Informatics, Erlangen, Germany*
[c] *Department of Medical Biometry, University of Heidelberg, Germany*
[d] *Department of Medical Informatics, University of Heidelberg, Germany*

Abstract

Problem: Patient Empowerment is a major aim of the German Health Card project. Up to now, it is unclear how patient empowerment can be measured. Methods: Literature review, development of patient empowerment indicators (PEI), design of a questionnaire to measure PEI for electronic prescription, validation of the questionnaire, analysis of indicators that can be determined by Health Card Terminals (HCT). Results: Six basic requirements for patient empowerment. and a questionnaire with 39 items. Conclusions: Patient Empowerment is difficult to measure. The suggested questionnaire has to be validated again by a representative sample. Then it can be used for a pilot study.

Keywords:

patient empowerment, measurement, qualitative research, electronic prescription, patient behaviour

Introduction

"To empower" means to give (someone) the power or legal right to do something[1]. Known empowerment concepts base on the principle of strengthening the mental power of the individual. The approach is already realised in disciplines like sociology, psychiatry or marketing. Empowerment is also a major aim of Germany's electronic health card project. The patient is enabled to continuously check all medical data on the card with the help so called Health Card Terminal (HCT). The objective of the paper is to define indicators for patient empowerment in the context of electronic prescription on the German Electronic Health Card (GEHC) and to introduce methods to measure them.

Materials and Methods

The aim of patient empowerment is to better integrate the patient in decisions e.g. by providing more individualized information. He is better involved in his treatment and more responsible for his health. Our working definition is based on Gibsons definition: „empowerment is a process of helping people to assert control over the factors which affect their lives. This encompasses both the individual responsibility in health care and the broader institutional, organizational or societal responsibilities in enabling people to assume responsibility for their own health." [1]. In addition we use the dimensions of empowerment developed by Zenz in his paper "Evaluating Empowerment: The world vision area development programme"[2].

We developed a process model for the prescription process and carefully analysed sub-processes in which the patient can be involved. To identify items that characterise patient empowerment in each of the processes we conducted a moderated brainwriting with 16 scientists. We enhanced the resulting item list by patient empowerment indicators (PEI) from literature e.g. "Satisfaction with quality of care" or "Desire for more information" and by technology acceptance indicators e.g. "Response time" and "Compatibility". We developed a 39-item questionnaire and performed a first iterative validation with more than 30 participants.

Results

The Dimensions of patient empowerment

We matched Gibson's definition with Zenz's model [2] to make sure that it can be used for the patient empowerment problem. Applying Zenz's statement in health care resulted in four our basic requirements for patient empowerment: Literacy, creative power, independence, self-efficacy. They apply, when the patient has access to his medical data by his GEHC.

Modelling the prescription process

Modelling the workflow of prescriptions we defined seven processes: Consulting the physician, Patient deletes the prescription (Action at the HCT), Patient hides or reveals the prescription (Action at the HCT), Dispensation, Reading prescription (Action at the HCT), No action, (the prescription is not valid any longer after a certain time span.), Advice (pharmacy). This process is not necessarily

1 Longman Dictionary of Contemporary English DCE, 1987

linear. Functions can be omitted or can be performed repeatedly.

Items for describing empowerment and IT-acceptance

We conducted a brainwriting to analyse for each step in the process, which decisions of a patient could be expected and which influence patient empowerment would have. We matched all answers with our four core requirements. The Matching resulted in two new requirements: exogenous empowerment, endogenous empowerment.

In a final step the resulting items were completed by items for measuring IT-acceptance, known in the literature [2]-[13]. We organised our item list in four tables: a) Description of the population, b) Description of medical background, and c.) descriptive data of terminal use and usage. The fourth table contains the six prerequisites mentioned above.

Measuring empowerment

Planning controlled trials for measuring patient empowerment should first of all start with determining the inclusion criteria, like that the patient is an owner of a GEHC. For measuring the items introduced in table a)-c) different methods have to be used. Items which are part of the Health Card data (e.g. age, sex) could be collected in a log file, if data protection laws are followed. as well as data like length of HCT consultation. Other items cannot be measured objectively, but have to be investigated by questioning patients. We designed a questionnaire for patient attitudes with four parts and 39 items. Part A is demographic data of table 1, Part B Medical Background – table 2, Part C is attitude towards HCT and Part D is behaviour. Some items in the questionnaire are requested by statements to be judged by the patient. For this personal judgement the 4-point Likert-Scale is used for questions like 'by using a HCT I feel more independent from the general practioner and the pharmacist'.In a first validation phase, the questionnaire was validated by 30 participants.

Discussion

A potential of the HCT is that additional information about the prescribed drug can be presented. If this is formulated in a way, which can be well understood by the patient, this could positively influence patient compliance [14]. Nevertheless we can cannot guarantee that the empowered patient makes clinically sound decisions.

We will validate our approach in the real setting of patients using the HCT, when the GEHC and the terminals are available. For this it is necessary that the patients have their own cards and used the HCT. Questions about the satisfaction with the functionality can be used to improve the system. The aim of our further research is to present individualized information about the drugs during HCT encounter and to analyse if the patient is empowered by this.

Conclusion

To measure patient empowerment precisely and to finally define the indicators that determine patient empowerment, further research is necessary. Our questionnaire is a first step and considers the problems patients may have with Health Card Terminals. It can be adapted to other telematics applications and may hopefully lead to empowered patients and accepted technologies in healthcare.

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Address for correspondence

Petra Knaup, Department of Medical Informatics, Im Neuenheimer Feld 400, 69120 Heidelberg