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Do German hospital report cards have the potential to improve the quality of care?

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ABSTRACT

Background: Hospitals report cards have been put in place within the past few years to increase the amount of publicly reported quality information in Germany.
Objective: The aim of this study was to assess the potential of German hospital report cards to improve quality of care.
Methods: First, a systematic Internet search aimed at identifying available report cards was conducted. Second, cross-sectional data (August/September 2013) were analyzed with respect to awareness, comprehension, and impact of report cards by using descriptive analysis and binary multivariate logistic regression models.
Results: Hospital report cards ($N = 62$) have become broadly available. However, awareness remains low, about one third (35.6%) of all respondents ($N = 2027$) were aware of German hospital report card. Regarding comprehensibility, in 60.7% of all experiments ($N = 6081$), respondents selected the hospital with the lowest risk-adjusted mortality; significant differences could be determined between the report cards ($p < .001$) with scores ranging from 27.5% to 77.2%. Binary multivariate logistic regression analysis revealed different significant respondent-related predictors on each report card. Finally, an impact on hospital choice making was determined.
Conclusions: To increase the potential of hospital report cards, health policy makers should promote the availability of report cards. In addition, the comprehensibility of German hospital report cards cannot be regarded as satisfying and should be enhanced in the future.

1. Introduction

Quality of care concerns have been published in the media in western industrialized countries for decades [1–4]. In addition, studies have shown remarkable variability in quality of care across health care providers [5–9]. One approach to improve the quality of health care delivery is the publication of provider performance data to the general public by means of a report card. The report cards generally assess quality of care by measuring adherence to clinical guidelines and by providing additional structural information [10]. For several years, the German Advisory Council on the Assessment of Developments in the Health Care System has noted the lack of transparency in the German health care market as one main weakness of healthcare provision in Germany. The Council has thus requested more market transparency in the health system [11], something that is supposed to have an increasing quality of care effect.

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Berwick and colleagues [12] developed the fundamental framework for quality improvement in this context. According to this framework, public reporting can improve the quality of care through two pathways. Regarding the first pathway, "Improvement through Selection," consumers select providers according to their own preference and perception about the quality of the providers. Thereby, public reporting empowers consumers with knowledge about which of the providers are offering the best quality and should be selected, and which should be avoided. The market shares will shift to the providers with higher quality, leaving the low-performing providers to care for a lower number of patients [13–17]. This will lead to higher overall quality, as patients will increasingly allocate themselves to providers with higher quality. The second pathway, "Improvement Through Changes in Care," emphasizes the role of providers [12] and assumes that public reports can help providers identify areas in which they underperform and require improvement [12,18]. In contrast to internal quality measurement, providers get the opportunity to have access to quality data of other providers and can compare their quality with the leading ones. In this context, a comprehensive literature review by Fung et al. found evidence that public reporting stimulates quality improvement activity at the hospital level [13] (see also [19,20]).

However, the German Advisory Council on the Assessment of Developments in the Health Care System stated in 2012, that there was still no unequivocal proof of the effectiveness of the "Improvement through Selection" pathway [11], something that is especially true for the German health care system [21]. Thus, the aim of this study was to assess the potential of hospital report cards to improve the quality of health care delivery in Germany by means of steering patients to high-quality providers. Therefore, according to Werner and Asch, four preconditions have to be fulfilled and will be addressed with respect to Germany: (1) report cards must exist, (2) consumers must be aware of those report cards and have access to them, (3) consumers must be able to comprehend the information, (4) and report cards must have an impact on hospital choice making [16].

2. Methods

This study is comprised of two components. The first component was conducting a systematic Internet search procedure in order to identify available hospital quality report cards (precondition 1). The second component was carrying out an online-based cross-sectional study to assess the awareness (precondition 2), comprehension (precondition 3), and impact (precondition 4) of report cards.

2.1. Component 1: identification of hospital report cards

Available report cards were identified by means of a systematic Internet search procedure in accordance with previously published studies [22,23]. As most Internet users start with a search engine when looking for health information online [24,25], we also proceeded in that manner. After putting in one key word (in sum, twenty keywords were used; e.g., hospital, hospital search, hospital recommendation, good hospital, hospital rating) into two search engines (i.e., Google, Yahoo), we analyzed the first 50 hits for each word (five result pages). Thus, a total of 2000 hits were analyzed.

2.2. Component 2: online based cross-sectional study to assess the awareness, comprehensibility and impact of hospital report cards

We applied an online-based cross-sectional study by surveying an online panel in order to address preconditions 2–4. It is important to mention that we modified the second precondition slightly; instead of assessing the access to report cards we focused on the use of such report cards to investigate the current meaning of the report cards (to date, approximately 80% of the German population are online [26]).

The applied questionnaire consists of three parts. First, a short introduction about the background and the objective of the study were presented followed by several questions to investigate the awareness and usage of hospital report cards as well as the impact on hospital choice making.

Second, we assessed the comprehension of the report cards by conducting an experiment. We analyzed whether respondents were able to select the hospital with the lowest risk-adjusted mortality (RAM) based on the ten most frequently viewed German hospital report cards. Thereby, we presented each participant with the RAM rate of five hospitals on three randomly selected report cards. Randomization was carried out using survey software; we set quotas for subgroups regarding age, gender, and German states in order to avoid significant differences between the participants for each report. Participants were asked to select the hospital with the lowest RAM, to justify their choice and to assess the comprehensibility of the report card. We then selected one risk-adjusted outcome indicator from the German Hospital Quality Report 2010, published annually by the AQUA-Institute (Institute for Applied Quality Improvement and Research in Health Care) [27]. This report is part of the external quality assurance for hospitals in Germany. Thereby, hospital treatment is documented for selected interventions for each patient based on previously determined quality indicators. To date, a set of roughly 300 quality measures is mandatory for all hospitals approved to provide care to Statutory Health Insurance members. The performance data is then transmitted to a central external agency (AQUA Institute), as well as to the corresponding state offices for quality assurance where the data is evaluated. In addition, a hospital-level quality report is published annually. Afterwards, performance results are fed back to the hospitals so that hospitals can assess their own quality against other hospitals and implement appropriate measures in order to improve quality of care [28]. In case the evaluations indicate a possible quality deficit of individual hospitals, the so-called Structured Quality Dialog can be initiated to clarify this discrepancy [27]. Under certain conditions, the mandatory documented data can also be provided for hospital-level publicly reporting purposes on report cards. The risk-adjusted outcome indicator was chosen based on the following four criteria: elective procedure, availability of risk-adjusted quality information on