

Research paper

Perceived usefulness of nine quality improvement tools among Swiss physicians

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ABSTRACT

Background: Doctors' opinions about quality improvement tools likely influence their uptake and eventual impact on patient care. Little is known about physicians' perception of the comparative utility of various quality improvement tools.

Methods: We conducted a mail survey of doctors in Geneva, Switzerland (2745 physicians, of whom 56% participated), to measure the perceived usefulness of 9 quality improvement tools.

Results: In decreasing order of perceived utility these tools were regular continuous education (rated as very or extremely useful by 75% of respondents), mortality and morbidity conferences (65%), quality circles (60%), patient

satisfaction measurement (42%), assessment of the fulfillment of therapeutic objectives (41%), assessment of compliance with guidelines (36%), periodic evaluation of doctors' skills (14%), onsite visits with peer-review of medical records (11%), and certification of office practices (8%).

Conclusion: Quality improvement tools seen as most useful by physicians are traditional methods such as continuous education and mortality and morbidity conferences. Methods that rely on the measurement of indicators or that have a judgmental component received less support.

Keywords: health care quality assessment, cross-sectional survey, expert opinions, peer groups, guidelines compliance.

How this fits in with quality in primary care?

What do we know?

Quality initiatives are costly and their success may depend on physician buy-in and involvement.

What this study adds?

This study shows that doctors have highly contrasted opinions about the potential usefulness of quality improvement tools. Certification of office practices, on-site evaluation visit and periodic evaluations of doctors' skills, appeared to be distrusted by the medical community, while, continuous education, quality circles and mortality and morbidity conferences were seen as useful by most doctors.

Introduction

Quality improvement in health care is a collaborative process which requires participation of the main stakeholders, including doctors. While organizational infrastructure is a necessary prerequisite for quality improvement, physician involvement and motivation are key factors for success.¹⁻³ Several quality improvement tools target predominantly physicians. Some are traditional, such as continuous education, audit and feedback, educational outreach visits, mortality and morbidity conferences, quality circles or reliance on a second opinion, while others have evolved in the fields of industry or services and have been introduced into medical practice only fairly recently.⁴⁻⁹ The latter include quality certification, monitoring of quality indicators including patient satisfaction surveys, among other quality management procedures.

Little is known about physicians' perception of the comparative utility of various quality improvement tools. This is important as quality initiatives are costly and their success may depend on physician buy-in and involvement. We conducted a survey to assess physicians' opinion of nine quality tools,

namely regular continuous education, participation in quality circles, mortality and morbidity conferences, compliance of medical practice with guidelines, assessment of the fulfillment of therapeutic objectives, patient satisfaction measurement, certification of office practices, on-site evaluation visit with peer-review of medical records and periodic evaluation of doctors' skills. We also examined physician characteristics associated with favorable opinions.

Methods

We conducted a mail survey among all doctors practicing patient care in canton Geneva, Switzerland.^{10,11} Briefly, all doctors were invited to participate, both hospital-based and in private practice. The survey assessed various topics related to health care policy and the role of the medical profession. This study was approved by the Research Ethics Committee of Geneva University Hospitals.

The leading question on the utility of quality care tools was "Several tools are currently proposed to improve healthcare quality, either in hospitals or at doctors' offices. According to you, what is the utility of the following tools for the

improvement of healthcare quality in your work environment?" The proposed items are presented in Figure 1. The answers were rated from 1 (not at all useful) to 5 (extremely useful). Doctors' characteristics were also recorded, such as age, sex, specialty, and practice setting.

We reported the distributions of perceived usefulness, overall and across subgroups of respondents. For each subgroup classification, we performed a chi-square to test for different utility perceptions among subgroups.

Results

Of the 2745 eligible physicians, 1546 (56%) returned the questionnaire and 1530 (56%) completed the section of the questionnaire that pertained to quality improvement tools. Participation was similar to the one obtained (59%) in a former survey on a same population.¹² Participation was not related to age, setting of practice and source data base. However, men responded more frequently than women (58.0% vs. 53.7%, $p = 0.027$) and participation varied according to specialty, from 52.6% in technical specialists to 62.2% in primary care doctors ($p = 0.003$). Only 173 belonged to a managed care organization.

Regular continuous education (rated as very or extremely useful by 75% of respondents), mortality and morbidity conferences (65%) and participation in quality circles (60%) were seen as useful by a majority of practitioners (Figure 1).

Patient satisfaction measurement (42%), assessment of the fulfillment of therapeutic objectives (41%) and compliance of medical practice with guidelines (36%) were seen as useful by more than one third of doctors. Periodic evaluation of doctors' skills (14%), on-site evaluation visit with peer-review of medical records (11%) and certification of office practices (8%) received low levels of support.

Most tools were perceived as more useful by younger doctors (Table 1) and hospital-based doctors held more positive opinions on quality improvement tools than doctors in private practice.

Discussion

This study shows that doctors have highly contrasted opinions about the potential usefulness of various quality improvement tools. Because the same scale was used to rate each of nine tools, our results allow a direct comparison of perceived utility. Some tools, such as the certification of office practices, on-site evaluation visit and periodic evaluations of doctors' skills, appeared to be distrusted by the medical community, while approaches such as continuous education, quality circles and mortality and morbidity conferences were seen as useful by most doctors.

Tools that imply judgment of the doctors' work were seen as having limited usefulness. This may simply mean that doctors do not want to submit to such procedures. A qualitative study

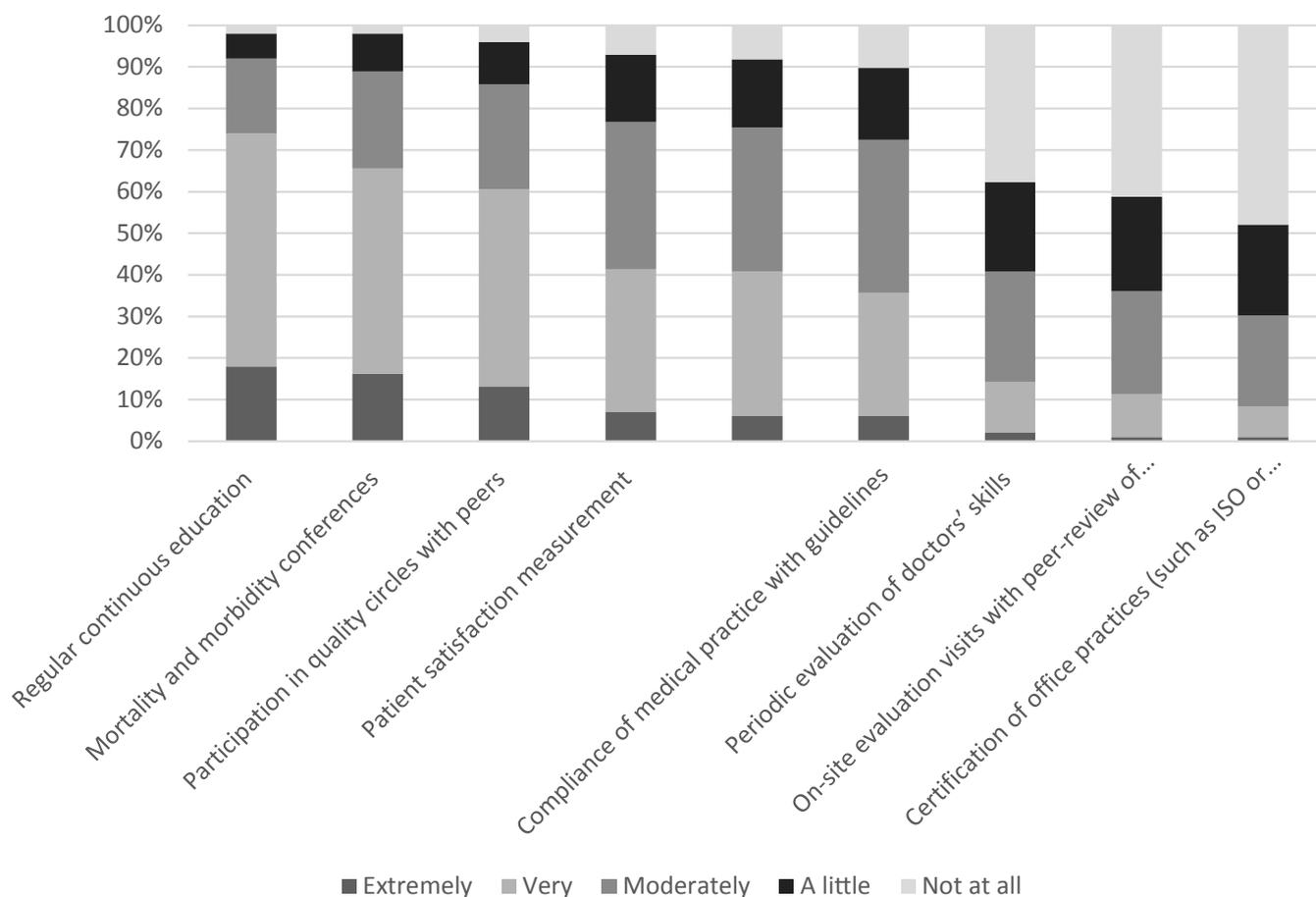


Figure 1: Distribution of respondents among the different ratings of usefulness for the improvement of healthcare quality for the nine assessed quality tools

Table 1: Subgroup analysis for several doctors' characteristics - Results for the six most acceptable quality tools (Rating: 4 (very) and 5 (extremely) useful).

| | | Regular continuous education | Mortality and morbidity conferences | Participation in quality circles | Patient satisfaction measurement | Assessment of fulfillment of therapeutic objectives | Compliance of medical practice with guidelines |
|---------------------------------------|-------------------------------|------------------------------|-------------------------------------|----------------------------------|----------------------------------|---|--|
| Total | | 75% | 65% | 60% | 42% | 41% | 36% |
| Sex | Women | 79% | 62% | 65% | 39% | 38% | 40% |
| | Men | 70% | 66% | 57% | 43% | 41% | 33% |
| | <i>p-value</i> | <0.001 | 0.088 | 0.005 | 0.10 | 0.31 | 0.007 |
| Age (years) | <35 | 91% | 76% | 70% | 45% | 46% | 57% |
| | 36-50 | 77% | 68% | 63% | 42% | 44% | 38% |
| | >50 | 63% | 56% | 52% | 39% | 33% | 23% |
| | <i>p-value</i> | <0.001 | <0.001 | <0.001 | 0.20 | <0.001 | <0.001 |
| Practice setting | Public, senior | 79% | 73% | 71% | 39% | 53% | 53% |
| | Public, in training | 87% | 76% | 72% | 45% | 49% | 52% |
| | Private practice | 65% | 56% | 51% | 40% | 32% | 23% |
| | <i>p-value</i> | <0.001 | <0.001 | <0.001 | 0.22 | <0.001 | <0.001 |
| Specialty* | Internal medicine specialists | 67% | 61% | 47% | 38% | 48% | 35% |
| | Pediatricians | 85% | 69% | 63% | 43% | 43% | 42% |
| | technical specialists | 72% | 70% | 60% | 40% | 39% | 40% |
| | Psychiatrists | 73% | 60% | 66% | 43% | 34% | 26% |
| | primary care | 77% | 63% | 62% | 44% | 38% | 36% |
| | <i>p-value</i> | 0.001 | 0.025 | <0.001 | 0.50 | 0.046 | 0.002 |
| Participation in managed care network | Yes | 69% | 62% | 68% | 39% | 35% | 27% |
| | No | 74% | 65% | 59% | 42% | 40% | 37% |
| | <i>p-value</i> | 0.11 | 0.56 | 0.030 | 0.55 | 0.12 | 0.012 |

on peer-group academic detailing has shown that some general practitioners experienced disclosing their prescription profile as frightening and another peer review program showed a dislike of being criticized.^{13,14} Preference for non-judgmental approaches is also consistent with results of a previous qualitative study that explored definitions of quality and quality management among hospital staff.¹⁵ Participation in quality circles received favorable assessments of utility, possibly because it is entirely managed by doctors, and because it includes a component of peer-support. The same holds for morbidity and mortality conference for which a good acceptance was also stated in a recent review⁷. In support of our finding, a survey of German general practitioners has identified journals, colleagues, and quality circles as favorite learning environments.¹⁶

Perceptions of usefulness were significantly more favorable among younger physicians. Others have also shown that older physicians distrust peer visits, and are less familiar with guidelines and less likely to comply with them.^{12,17} This suggests that the implementation of quality improvement procedures may be more readily accepted by doctors in future.

The main strength of our paper is that physician assessments of usefulness were obtained for a range of quality improvement tools using the same scale, in a large unselected sample of clinicians. The main limitation is that only physicians from a single area were surveyed and therefore our results may not be applicable in other contexts. In addition, perceptions of utility may change with exposure to specific quality improvement tools and increased familiarity.

In conclusion, physicians consider as most useful non-judgmental quality improvement tools. Younger physicians have more positive opinions regarding most quality improvement tools.

CONFLICTS OF INTEREST

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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