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ORIGINAL ARTICLE

Use of quality improvement methods in Finnish health centres in 1998 and 2003

MARKKU SUMANEN^{1,2}, IRMA VIRJO^{1,3}, HARRI HYPPÖLÄ⁴, HANNU HALILA⁵, ESKO KUMPUSALO⁶, SANTERO KUJALA⁵, MAURI ISOKOSKI¹, JUKKA VÄNSKÄ⁵ & KARI MATTILA^{1,7}

¹Medical School, Department of General Practice, University of Tampere, ²Kangasala Health Centre, ³Hospital District of South Ostrobothnia, ⁴Department of Internal medicine, Kuopio University Hospital, ⁵Finnish Medical Association, Helsinki, ⁶Family Practice Unit, Kuopio University Hospital & University of Kuopio, and ⁷Pirkanmaa Hospital District, Department of General Practice, Finland

Abstract

Objective. To evaluate how widely quality improvement methods are used in Finnish primary health centres and how the use has changed over five years. **Design.** Two national cross-sectional postal enquiries. **Setting and subjects.** The questionnaire in 1998 was sent to every other physician graduated during the years 1977–1986, and the questionnaire in 2003 to every other physician graduated during the years 1982–1991. The response rates were 73.9% and 62.2%. The answers of primary healthcare physicians (n = 503 vs. 344) were analysed. **Main outcome measures.** The availability of 13 quality improvement methods was solicited. The change over five years was analysed. **Results.** Opportunity to obtain continuing medical education (CME), in-service training, meetings, opportunity to consult a colleague in own speciality, and agreed guidelines on how a certain problem should be solved were highly reported both in 1998 and 2003. The biggest improvement (16.8%) concerned clinical guidelines. There was also progress with regard to quality improvement manuals at the place of work, opportunity to consult a colleague in another speciality, and computer-assisted monitoring of own work. **Conclusion.** Many quality improvement methods were highly reported in both 1998 and 2003 in Finnish health centres. The biggest positive change concerns clinical guidelines.

Key Words: Consulting colleagues, continuing medical education, family practice, guidelines, health centre, quality

There are many conceptions concerning quality in healthcare. It can be seen as an optimal balance between possibilities realized and a framework of norms and values [1]. Quality can also be defined as achieving desired health outcomes [2]. Traditionally the quality characteristics related to healthcare have been efficiency, accessibility, and effectiveness [3]. These may also conflict with each other. In general practice quality assurance has been defined as being a continuous process of planned activities with the aim of improving the actual quality of patient care [4]. Quality assurance should also be persistent, consistent, meticulously fair, and it must show results [5].

Primary healthcare doctors have also expressed their own opinions of quality assurance. From

Finnish physicians have considered the quality assurance of work to be versatile.

- Many quality improvement methods were highly reported both in 1998 and 2003 in Finnish health centres.
- The most common quality assurance and quality improvement methods were meetings, in-service training, and opportunities to obtain continuing medical education.
- The use of clinical guidelines in primary healthcare had increased.

general practitioners' point of view internal follow-up is a professional obligation but external control an

imposition [6]. In many settings GPs rely on specialist-based continuing medical education methods such as direct consultation with experts, reviews in journals and textbooks, and formal continuing education activities [7,8]. One important matter in the assessment of quality in primary care is the continuity of care. In fact, it provides satisfaction for both doctors and patients [9].

Two decades ago a programme was introduced that drew from a distinguished healthcare quality assurance tradition and incorporated techniques found to be successful in other fields of society [10]. Nowadays there is a wide variety of methods available to general practitioners for quality assessment and assurance. One crucial element in all methods is creating a set of empirical data, as a basis for comparisons, reflection, dialogues, and discussion among colleagues [11]. In the Nordic countries the Audit Project Odense (APO) method has been found suitable for evaluation and development of the activities in primary healthcare [12]. It is concerned with the process, i.e. examination, treatment, and care. Although there is still need to develop the method, the 10-year-experience of the project has proved the APO method to be effective and simple for quality improvement in general practice [13].

According to a Finnish study physicians considered the quality assurance of work to be versatile [14]. The study was undertaken using an instrument based on a model set by the European Working Party on Quality in General Practice of the World Organization of National Colleges (WONCA) [15]. What are the most commonly used quality improvement methods in Finnish healthcare centres? Has the use of these methods changed over the past few years?

Material and methods

Addresses of the study population in the Physician 1998 [16] and 2003 [17] studies were obtained from the register of the Finnish Medical Association, which includes information on all licensed physicians in Finland. The surveys during the years 1998 and 2003 were carried out by postal questionnaires. The questionnaire in 1998 was sent to every other licensed physician graduated during the years 1977–1986, and the questionnaire in 2003 to every other licensed physician graduated during the years 1982–1991. The questionnaire in the year 2003 was returned by 1672 physicians, and the response rate was 62.2% (Table I). The corresponding figures in 1998 were 2117 and 73.9%. Identities of the respondents were at all stages unknown to the study group.

Table I. Study population: Samples, respondents, and health centre physicians in the Physician 1998 and 2003 studies.

	The Physician 1998 study (graduated 1977–1986) n	The Physician 2003 study (graduated 1982–1991) n
Study population	5702	5255
Sample	2865	2687
Respondents	2117	1672
Health centre physicians	503	344

The respondents were asked what their main job was. Health centre doctors who graduated during the years 1977–1986 from the Physician 1998 study ($n=503$) and health centre doctors who graduated during the years 1982–1991 from the Physician 2003 study ($n=344$) were taken into the analysis. These groups were similar with regard to age and working years. The proportion of health centre doctors among licensed physicians in Finland was 24.6% in the year 1998 and 22.1% in the year 2003 [18]. The responding proportions in our study were 23.8% and 20.6%, reflecting that health centre doctors responding to our questionnaires were quite representative of Finnish health centre doctors.

The respondents were asked whether different kinds of quality assurance and improvement methods were available at their place of work. Altogether 13 methods were asked about (Table II). The answer alternatives for the use of these methods were often, occasionally, and no.

The analyses were made using the SPSS System for Windows, release 12.0.1. Statistical significance was tested by chi-squared test.

Results

In the Physician 2003 study the most reported quality assurance and improvement methods in health centres were meetings and opportunities to consult another colleague in the same speciality (Figure 1). These were reported to have taken place often by more than half of the respondents. Opportunities to consult a colleague in another speciality, opportunities to obtain CME, in-service training, and clinical guidelines were also widely reported, but still mainly occasionally. Quality programme manual at the place of work at least occasionally was reported by less than half of the respondents. One in three reported quality circles and computer-assisted monitoring of own work, one in four peer reviews, and one in 10 video-assisted development of own work. Client surveys were also reported by most of the respondents but mainly to be carried out only occasionally.

Table II. Quality assurance and quality improvement methods available at the place of work as reported by primary healthcare doctors in 1998 and 2003.¹

	Year 1998 (n = 486–498) %	Year 2003 (n = 333–341) %	Change %	p-value
Opportunity to obtain continuing medical education	95.4	95.6	0.2	0.873
In-service training	94.4	93.0	–1.4	0.408
Meetings	94.0	93.2	–0.8	0.676
Opportunity to consult a colleague in own speciality	92.2	92.0	–0.2	0.941
Agreed guidelines on how a certain problem should be solved	86.1	88.2	2.1	0.394
Opportunity to consult a colleague in another speciality	81.5	90.0	8.5	0.001
Client surveys	78.1	81.7	3.6	0.205
Clinical guidelines at the place of work	74.6	91.4	16.8	<0.001
Quality programme manual at the place of work	38.2	48.1	9.9	0.005
Quality circles	32.6	37.2	4.6	0.168
Computer-assisted monitoring of own work	21.9	32.9	11.0	<0.001
Peer reviews	18.7	23.7	5.0	0.083
Video-assisted development of own work	10.7	9.5	–1.2	0.568

¹Proportions (%) of often and occasionally reported methods are calculated together.

Compared with the situation five years earlier the proportion of health centre physicians reporting on the use of clinical guidelines at the place of work had increased (see Table II). Also the opportunities to consult a colleague in another speciality were reported more often than five years earlier. There was also progress in regard to computer-assisted monitoring of own work and quality programmes/quality manual at the place of work. None of the quality methods was reported less in 2003 than in 1998.

Discussion

According to our findings the use of quality assurance and quality improvement methods in Finnish health centres has taken a turn for the better. The biggest positive change concerns the use of clinical guidelines. It is obvious that the national Current

Care guidelines [19] have an important role in this respect. These guidelines, the number of which is now over 70, are evidence-based and have been written by the best experts in their own field in Finland. The Finnish experience with electronic guidelines dates back over 10 years, especially in the area of primary healthcare, and provides possibilities for further international cooperation [20].

However, evidence does not make a decision, but it is an essential ingredient of it [21]. Moreover, a critical appraisal of contemporary medical research, including the concept of evidence-based medicine, is necessary [22]. It should be emphasized that the guidelines are not always available in the treatment of every patient. It is possible to depart from normal procedure as far as a single patient is concerned. However, it is recommended to document the reasons for that.

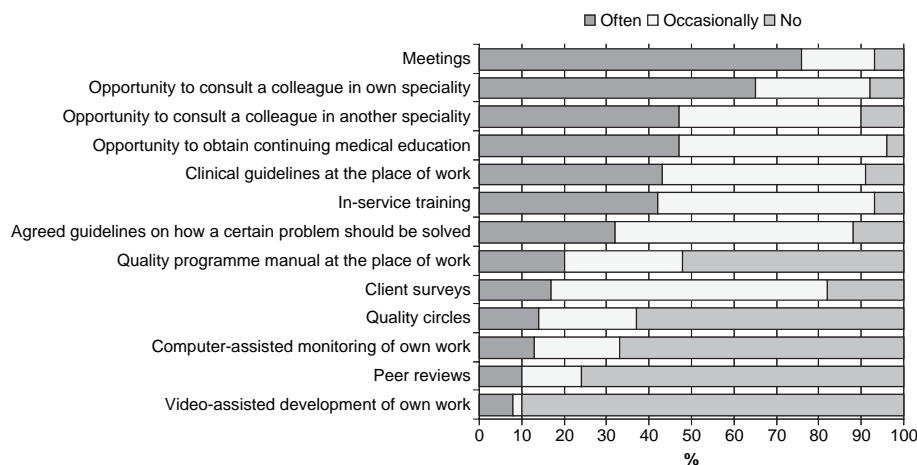


Figure 1. Primary healthcare doctors in the Physician 2003 study: Are the following quality assurance and quality improvement methods available at your place of work? Distribution (%) of answers.

The increase in quality programme manuals at the place of work is noteworthy. The finding that almost all primary healthcare physicians have the opportunity to obtain continuing medical education should also be considered a positive factor. However, less than half of the respondents had this opportunity only occasionally. According to an annual inquiry by the Finnish Medical Association continuing medical education seems to have increased, but in primary healthcare it is still at a lower stage than in hospitals [18].

Meetings, and the opportunities to obtain CME as well as in-service training were the mostly reported quality assurance and quality improvement methods in Finnish health centres. Also opportunities to consult colleagues are very common. However, primary healthcare physicians do not have the same opportunity to consult a colleague in another speciality as other physicians have. More than two in three primary healthcare physicians consider their work lonely [23], and meeting another physician does not happen as often as is the case among hospital physicians.

One in five primary care physicians reported that they do not carry out client satisfaction surveys at their place of work. In Finland during recent years these surveys have become more frequent. Taking the client standpoint into account already in the early stages of quality development has, in fact, been greeted with pleasure [24].

In spite of the positive trend some quality assurance and quality improvement methods in Finnish health centres are still rare. Computer-assisted monitoring and video-assisted development of own work are rather minor, although there is continuing development in information technology. Benchmarking, which is nowadays well known from the business world, is also rather rare.

In our study the answer alternatives for the use of these methods were often, occasionally, and no. We did not specify the first two alternatives. It is thus possible that respondents have a different kind of conceptions when considering the frequency of use of these methods. We, however, think that this has not any significant impact on our findings. Most of the methods used that were inquired about are either based on mutual agreement or not used at all, whereas some methods such as client satisfaction surveys can be carried out only once or twice a year.

There might be barriers towards quality methods. It is possible that health centre doctors working on a patient list system feel more committed to their own patients than other health centre doctors, and going to CME may increase patients' waiting times in surgeries. Thus these doctors might be reluctant to participate in CME and tend to answer inquiries

negatively. One feature of a GP's work is loneliness, which diminishes the possibilities to consult colleagues. It is also possible that doctors themselves are ready for quality improvement but that the tools for this purpose are poorly planned. For example rigid electronic patient record systems make it difficult to follow-up one's own work. These systems are also time-consuming and may become distasteful to many GPs. Moreover, in the administration of health centres the number of patient contacts is valued and supported, which plays a part in reducing the time for consulting colleagues, and participating in CMI and meetings.

Finnish primary healthcare is under continuous pressure to change and develop. For instance since the mid-1990s there have been growing difficulties in recruiting or retaining general practitioners [25]. We thus venture to state that our findings concerning quality assurance and improvement in Finnish health centres are encouraging. Quality assurance is today an essential part of primary healthcare. Further development of these methods is an incessant challenge. Moreover, quality methods can also be used in recruiting more doctors to primary healthcare. There are still many points to be further developed. In order to succeed in quality actions health centre physicians should be active. On the other hand, more economic quality incentives should be applied in Finnish primary healthcare settings.

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