Health-promoting hospitals in Estonia: what are they doing differently?

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SUMMARY

The health-promoting hospitals (HPH) movement in Estonia was initiated in 1999. This study aimed to compare the implementation of health-promoting and quality-related activities in HPH and those which have not joined the HPH network (non-HPH). In the beginning of 2005, a postal survey was conducted among the top managers of 54 Estonian hospitals. The questionnaire was based on the WHO standards for HPH and on the set of the national quality assurance (QA) requirements for health services. The study demonstrated some significant differences in the uptake of health promotion and QA activities between HPH and non-HPH. For example, regular patient satisfaction studies were conducted in 83% of HPH and 46% of non-HPH (P < 0.03) and 65% of HPH and 46% of non-HPH cooperated with various patient organizations (P < 0.03). Systems for reporting and analysis of complications were implemented in 71% of HPH and 33% of non-HPH (P < 0.03); also, the implementation of various guidelines was more developed in HPH. All HPH have carried out a risk analysis on the workplace and staff job satisfaction studies were conducted in 89% of HPH and 41% non-HPH (P < 0.05). This study indicates that the concepts of HPH and QA are closely related. Making progress in health promotion is accompanied with QA and vice versa. Implementation of health-promoting activities in hospitals will promote the well-being and health of patients and hospital staff, and creates a supportive environment to provide safe and high-quality health services.

Key words: health promotion; hospitals; quality

INTRODUCTION

Health-promoting hospitals (HPH) were initiated at the end of 1980s with the WHO model project ‘Health and Hospital’ followed by the European Pilot Hospital Project in 1993–1997, which involved 20 hospitals from 11 European countries (Pelikan et al., 2001). The concept of HPH follows from the health promotion concept of the WHO Ottawa Charter for health promotion (WHO, 1986), in which the reorientation of health services is considered as one of the five major action areas for overall health promotion development.

The WHO HPH movement itself focuses on four areas: promoting the health of patients, promoting the health of staff, changing the organization to a health-promoting setting and promoting the health of the community (Pelikan et al., 2001). Based on the concepts and values of the HPH movement, the WHO Regional Office for Europe developed standards for HPH in 2003, which address health promotion in relation to the hospital’s management policy, patient
assessment, information and intervention with regard to health promotion needs, promoting a healthy workplace and improving the continuity and cooperation of the hospital with subsequent care providers and community resources (WHO, 2006). Comparing the standards for HPH to the criteria of the EFQM excellence model, one can find a lot of similarities. Thus, the implementation of HPH standards in a hospital can be considered as a strategy to improve the quality of health services overall (Groene and García-Barbero, 2005; WHO, 2006).

Despite the development of the International HPH network comprising 25 member States, 35 national and regional networks and more than 700 hospitals (Groene and García-Barbero, 2005), questions have been raised with regard to the progress of this initiative and the impact on hospitals participating in it (Whitehead, 2004; Groene, 2005). Johnson and Baum pointed out that there is still a long way to go until health promotion is anchored to the hospitals’ organizational culture and structure (Johnson and Baum, 2001). Based on a review of the literature and an assessment of health-promoting hospital projects in Australia, they identified a typology of HPH activities with four dimensions: (i) doing a health promotion project; (ii) delegating health promotion to a specific division, department or staff; (iii) being a health-promoting setting; and (iv) being a health-promoting setting and improving the health of the community. Their observation is in line with what we found in other countries. Many hospitals have introduced selected health-promotion activities; however, the process of extending and incorporating these activities at a broader level has been slow.

It depends on the management philosophy of individual organization as to how effectively whole organizational reform can be implemented through marrying management-related and health-promotion programmes (Whitehead, 2004). A way to relate those areas could be found through the ideology of quality management as the principles of HPH are rather similar to the principles of quality management and both can therefore be implemented at the same time (Groene, 2005; Groene and García-Barbero, 2005).

Therefore, the purpose of this study is to compare the implementation of health-promoting and quality-related activities in Estonian HPH and those which have not joined the HPH network (non-HPH).

**BACKGROUND**

The HPH movement in Estonia was initiated by the Tallinn Järve Hospital as the pilot project and the Estonian HPH Network was established in January 2000 (Härm, 2004). At the same time, the hospital reform in Estonia was initiated focusing on reorganization of the hospital network with the objective of improving the quality of health services provided by hospitals (Jesse et al., 2004; MoSA 2004). The regulation, which defined the minimum set of quality requirements for the providers of health services, came into force in January 2002 (MoSA, 2001). According to this regulation, all providers of health services in Estonia should implement by the end of 2004 a system of quality assurance (QA), including among other things the registration of patient complaints and conducting patient satisfaction surveys; reporting and documenting specific complications and side effects; development and implementation of guidelines to prevent clinical risks; cooperation with other providers of health services; and continuous professional training for their personnel.

By the end of 2004, 20 hospitals with a capacity of more than 75% of all hospital beds of the country had joined the HPH network (including all regional and 75% of the central hospitals), all of which belong to the World Health Organization (WHO) HPH international network and possess an HPH certificate (Härm, 2004). The goal of the Estonian HPH network is the health promotion of patients and their families, hospital employees and the community population. Arising from the goal, the following objectives were set (Härm, 2001, 2004):

- to use the health promotion and disease prevention as integrated parts of everyday work in a hospital;
- to promote the health of patients, focusing on patients’ rights and satisfaction, psychosocial support and counselling as well as patient education;
- to promote the health of hospital staff, focusing on staff satisfaction, avoidance of health risks, communication skills, working environment and coping with psycho-social stress;
- to develop cooperation between hospitals and other providers of health services; and
- to reorient hospital services, roles and functions from illness to health with the purpose
of transforming the hospital into a healthy organization.

Thus, the objectives of the Estonian HPH network are closely related to the basic quality requirements established for the providers of health services (MoSA, 2001), as well as to the standards for HPH (WHO, 2006).

Since the beginning of the HPH movement in Estonia, the Estonian Health Insurance Fund (EHIF) has supported the activities carried out within the framework of the HPH project. By the end of 2004, the EHIF initiated the evaluation of the progress of the HPH project in Estonia. The team of researchers from the University of Tartu in collaboration with practitioners conducted the evaluation. In this paper, we will present the main results of this evaluation process according to the goal and objectives of the Estonian HPH movement. A part of this study, which focused on the management policy of the hospitals and explained the hospital top managers’ views on the HPH network, was published previously. The results demonstrated that top managers of Estonian health promoting hospitals are aware of the ideology and objectives of the HPH network and most of the top managers understood the role of health promotion in providing high-quality health services (Pölluste et al., 2006). In this paper, we focus on the patients’ related activities—promotion of patients’ health, patient education and their satisfaction with health services; promotion of staff health; cooperation between the providers of health services; and the aspects of clinical risk management.

**METHODS**

In the beginning of 2005, a postal questionnaire survey was conducted among the top managers (chief executive officers) of all Estonian hospitals \((n = 54)\). Of those hospitals, 20 were members of the HPH network. For the study, an original, pre-structured questionnaire was developed on the basis of the regulation of the Minister of Social Affairs ‘Quality assurance requirements for health services’ (MoSA, 2001) and the standards for HPH (WHO, 2006). The questionnaire covered the following areas: (i) promotion of patients’ health, well-being and satisfaction with health services, and patient education; (ii) promotion of staff health and a healthy workplace; (iii) cooperation between hospitals and other providers of health services and patient organizations; and (iv) professional quality and clinical risk management. Additionally, one part of the questionnaire focused on the management policy and its relation to the health-promoting activities of the organization, which was published previously (Pölluste et al., 2006). The items used in this analysis are listed in Appendix 1.

Questionnaires were coded using MS Office Excel 2000 software and analysed using the SPSS 10.0 for Windows statistical package. To explain the differences between the hospitals, hospitals were divided into two groups: hospitals that had joined the HPH network (HPH), and those that had not joined the HPH network (non-HPH). The differences between these two groups were tested using the chi-square test and Fisher’s exact test as presented in the text and in Tables 1 and 2.

**Table 1: Structure of the Estonian hospitals and hospitals of the study sample**

<table>
<thead>
<tr>
<th>Type of the hospital</th>
<th>Estonian hospitals, (N (%))</th>
<th>Hospitals in the sample</th>
<th>Response rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>HPH (n (%))</td>
<td>Non-HPH (n (%))</td>
</tr>
<tr>
<td>Regional hospital</td>
<td>3 (6)</td>
<td>3 (16)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Central hospital</td>
<td>4 (7)</td>
<td>3 (16)</td>
<td>1 (4)</td>
</tr>
<tr>
<td>General hospital</td>
<td>11 (20)</td>
<td>8 (42)</td>
<td>2 (8)</td>
</tr>
<tr>
<td>Local hospital</td>
<td>5 (9)</td>
<td>1 (5)</td>
<td>2 (8)</td>
</tr>
<tr>
<td>Special hospital(^a)</td>
<td>11 (20)</td>
<td>1 (5)</td>
<td>5 (21)</td>
</tr>
<tr>
<td>Nursing care hospital</td>
<td>20 (37)</td>
<td>3 (16)</td>
<td>14 (59)</td>
</tr>
<tr>
<td>Total</td>
<td>54 (100)</td>
<td>19 (100)</td>
<td>24 (100)</td>
</tr>
</tbody>
</table>

\(^a\)Hospitals which have specialized on the rehabilitation, psychiatric, obstetric and gynaecological, heart surgery, or otorhinolaryngological services.
RESULTS

Sample description
The overall response rate was 80%. From the managers of the HPH, 19 questionnaires (95%) were returned and 25 (73%) questionnaires were returned from the managers of non-HPH. When comparing the structure of the Estonian hospitals according to the type of the hospital to the study sample structure, we did not find any statistically significant difference ($P = 0.96$); however, we did find some differences when comparing HPH and non-HPH within the sample. The comparison of the structures of all Estonian hospitals and hospitals belonging to the study sample is presented in Table 1.

Promotion of patients’ health, well-being and satisfaction with health services, and patient education
Regular patient satisfaction studies were conducted in 83% of HPH and 46% of non-HPH ($P < 0.03$). A system for the management of patients’ complaints was introduced in all hospitals. In all HPH and in 26 (75%) of the non-HPH, the results of the patient satisfaction studies and the analysis of the patients’ complaints were used to improve the quality of health services ($P < 0.04$). Of all respondents, 60% reported an improvement of the level of patient satisfaction in the year 2004 compared to the earlier period.

Most of the respondents (83%) confirmed that the assessment of the patients’ needs for health promotion and patient education is documented in the medical and nursing records. In most of the hospitals, information was available related to health promotion and disease prevention for patients and their families. Information was more often provided in HPH; however, a statistically significant difference could only be detected regarding information on the prevention of chronic conditions ($P < 0.05$) (Table 2).

Promotion of staff health and healthy workplace
The implementation of a training plan for staff was similar in both HPH and non-HPH. Most of the respondents confirmed the existence of training plans for doctors (86%), nurses (98%) and other staff (74%). Training plans for top- and middle-level managers were developed approximately in half of the hospitals (45 and 55%, respectively). There was no difference in the answers of managers of HPH and non-HPH. However, there was a big difference in the participation of the staff in the health promotion training ($P < 0.001$)—all managers of HPH declared that staff members of their hospitals participated in health promotion training. On the other hand, only 26% of the managers of non-HPH confirmed the participation of their staff in health promotion training. Most of the training courses in health promotion for hospital staff were organized by the national HPH network.

Introductory training for new staff was implemented in 32% of the HPH and 9% of non-HPH. However, the difference was not statistically significant. A stress management program for staff was implemented only in two hospitals—one of which was an HPH and one non-HPH.

All HPH and 50% of non-HPH carried out a risk analysis on the workplace ($P < 0.03$). Also,
staff job satisfaction, the burnout level among the hospital staff and staff smoking habits were investigated more often in HPH than in non-HPH (Figure 1).

Cooperation between hospitals and other providers of health services and patient organizations

Of the respondents, 81% confirmed that their hospitals had a regular working relationship, such as regular discussions, clinical conferences, exchange of the information, etc. with providers of primary health care services. Almost two-thirds of the respondents (61%) reported that they had the same kind of cooperation between the hospital and ambulance services as well. There was no statistically significant difference between the answers of the HPH and non-HPH. However, a significantly higher number of managers of HPH (72%) compared to the others (33%, \( P < 0.03 \)) declared that their hospitals cooperated with various patient organizations, such as the Patients Association, Diabetes Society, Cancer Society, organizations for disabled persons, etc.

Activities related to the management of the professional quality and clinical risks

Systems for reporting and analysis of complications were implemented in 71% of HPH and
33% of non-HPH (P < 0.03), and certain complications and incidences were documented more often in HPH than non-HPH (Figure 2). The documentation of post-surgical clean wound infections and complications due to anaesthetic procedures were requested only from those respondents who had a licence for anaesthesia and surgery in their hospitals. Also, the implementation of various guidelines was more active in HPH (Figure 3). The implementation of guidelines for the preoperative assessment of the patient’s status was requested only from those respondents who had a licence for anaesthesia and surgery in their hospitals.

**DISCUSSION**

The main goal of hospitals is to provide high-level medical services to their patients. However, HPH have set out more ambitious goals—in addition to the treatment, to promote the health of their patients, staff and community as well (WHO, 1997). In Estonia, the starting period of the HPH movement was influenced by the reorganization of the hospital network. This was a period of uncertainty for hospitals, which probably affected the decision to join or not to join the HPH network of some managers. However, simultaneously with the implementation of the hospital network reform, managers adopted the ideology of the HPH and by the end of 2005 most acute as well as some nursing care hospitals had joined the HPH network.

In a previous paper, Whitehead argued that the HPH initiative had a more limited impact than was anticipated 15 years ago (Whitehead, 2004). However, the results of this study demonstrate that the HPH movement in Estonian hospitals is accompanied with a number of positive initiatives. According to the objectives of the Estonian HPH movement, health promotion should be integrated into everyday work in hospitals to promote patients’ and staff health, to promote the cooperation between the providers of health services and to transform hospitals into healthy organizations (Härm, 2001, 2004). As illustrated in this study, in most HPH patient satisfaction was routinely studied, and the results of the satisfaction studies and analysis of patients’ complaints were also used to promote the quality of the health services. The patient-oriented approach has been one of the objectives of the Estonian HPH network since the movement was initiated (Härm, 2001) and the results of this study demonstrated that 5 years later this matters for most of the Estonian HPH. Also, a lot attention is paid to staff safety and well-being—a risk analysis of the workplace has been conducted in all HPH, and in most of those hospitals staff satisfaction has been studied as well. Additionally, almost half of the HPH have introduced studies to explain staff burnout. To move towards the
Health-promoting hospitals in Estonia

In a recent study, Groene et al. evaluate the compliance with health promotion standards in relation to certain hospital characteristics (such as size, being accredited, being a teaching hospital) and to membership status (being part of the HPH network versus a non-member) and found that accreditation and HPH membership status is associated with compliance with the health promotion standards (Groene et al., 2007). It is likely that the information systems and procedures put in place during the hospital accreditation process facilitate the assessment against health promotion standards. In addition, some of the health promotion standards are related to patients’ rights, patient information and patient education, which are partly addressed by some accreditation systems. With regard to the HPH membership status, a higher level of compliance may reflect that the hospital has actually implemented the issues reflected in the standards to a higher extent (as some hospitals have been members for many years) and that hospitals in the HPH network have benefited from the educational measures supported through the networks. Although many HPH networks carry out studies on the effect of health promotion interventions in hospitals, according to our knowledge there are no further studies yet that systematically compare HPH and non-HPH with regard to the update of health promotion and QA measures.

When comparing HPH and non-HPH in Estonia, the results of this study suggest that several quality-related activities, especially measures for the prevention of clinical risks, were more frequently implemented in HPH than in others. It is possible that this difference in clinical quality might depend on the type of hospital. Most of non-HPH are nursing care and small local hospitals where the patients need usually long-term care and nursing. Therefore, the management of clinical risks related, e.g. to blood transfusion or adverse reactions may not be the high-priority area for those institutions. Instead of that, more attention is put on other aspects, e.g. prevention of hospital acquired infection or bedsores.

Still, the results of this study confirmed that HPH have better preconditions for providing high-quality health services. However, this study did not explain the causal relationship between health promotion and QA and it is clear that making progress in health promotion is accompanied with progress in QA and vice versa. If the QA principles are applied in a hospital, it may facilitate an easier uptake of HPH principles too. Moreover, some of the HPH in the sample might have been in a better position to comply with the health promotion and QA criteria as the non-HPH due to differences in available resources. In Estonia, for example, the hospital reform has been focused more on the development of strategic plan for acute hospital network development, and the financing mechanisms for acute care are clear. But the long-term and nursing care network is still changing; financing mechanisms and regulations are not in place yet (Jesse et al., 2004). This might be one explanation why QA and health-promoting actions have been more intense in clinical settings as opposed to nursing hospitals.

Implementation of health-promoting activities in hospitals will promote the well-being and health of patients and hospital staff (without drawing resources away from other activities), and create a supportive environment to provide safe and high-quality health services. Thus, the role of the Estonian HPH network should not be underestimated, especially because of its educative role in health promotion.

Furthermore, the results from this study indicate that some patient and staff-oriented activities, which have been considered as HPH standards, have expanded beyond the HPH network. In most of the Estonian hospitals, the assessment of the patients’ needs for health promotion and patient education is documented and information related to health promotion and disease prevention is offered to the patients and their families. Moreover, the training plans for staff were implemented in most of the hospitals; however, staff participation in health promotion training was remarkably more active in the HPH hospitals. The cooperation between hospitals and other providers of health services was at the same level in HPH and other hospitals, but HPH more often initiated the cooperation with different patient organizations. These examples characterize the indirect effect of the HPH movement in Estonia. The majority

smoke-free hospital staff smoking habits were also studied. The activities oriented to the patients and staff were most popular in the hospitals belonging to the Network of HPH (Groene and Jorgensen, 2005; Tountas et al., 2004). Research at the level of the International Network suggests similar results.
of the leading hospitals in the country have joined the network and implemented various health-promoting activities, which also exert positive pressure on other hospitals.

CONCLUSION

In order to improve the effectiveness of health promotion and QA, the hospital needs to be considered as a whole system where policies and practices are mutually supportive and integrated into the culture of the organization (McBride, 2004). As this study suggests, health-promoting and quality-related activities cannot be implemented as separate projects, as most of the orientations and principles are rather interrelated. The managerial commitment in the health promotion ideology, which was found previously (Pölluste et al., 2006), may have played a role in the progress of HPH network activities in Estonian hospitals. In 2000, the HPH movement in Estonia started from the single projects and training of key persons (Härm, 2001). Today, 20 hospitals with a capacity of more than 75% of all hospital beds of the country have joined the HPH network and adopted a number of health promotion activities. According to the organizational approach presented by Johnson and Baum (Johnson and Baum, 2001), Estonian HPH seem to be moving towards being a health promotion setting. However, there is still a long way to go in implementing the broader health promotion activities and in this study we only focus on a limited set of activities that reflect the overlap between health promotion and QA.

However, the findings raise the question of whether differences between HPH and non-HPH could also be detected in other countries that belong to the HPH network. HPH networks in other countries should therefore consider embarking on similar research for the newly published WHO self-assessment tool for health promotion in hospitals could be used (WHO, 2006).

FUNDING

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REFERENCES


APPENDIX 1: QUESTIONS AND RESPONSE SCALES USED IN THIS ARTICLE

I. Promotion of patients’ health, wellbeing and satisfaction with health services, and patient education (11 items, Cronbach’s alpha 0.83)

1. Does your hospital offer to patients information about healthy lifestyles, with regard to:
   - 1.1. Physical exercise 1 = yes; 2 = no
   - 1.2. Healthy nutrition 1 = yes; 2 = no
   - 1.3. Smoking cessation 1 = yes; 2 = no

2. Does your hospital offer to patients information about the
   - 2.1. Prevention of the chronic conditions? 1 = yes; 2 = no
   - 2.2. Diagnostic and treatment opportunities in the hospital? 1 = yes; 2 = no

3. Does your hospital offer consultations
   - 3.1. on diet 1 = yes; 2 = no
   - 3.2. on smoking cessation 1 = yes; 2 = no

4. Do the medical and nursing records in your hospital include information about patient’s education and health promotion? 1 = yes; 2 = no

5. Have you implemented a complaints’ management system? 1 = yes; 2 = no

6. How often have you carried out patient satisfaction studies? 1 = systematically at least once per year; 2= occasionally, 3 = patient satisfaction is not studied

7. Have you used the results from complaint analyses or satisfaction studies to improve the quality of the services? 1 = yes; 2 = no

II. Promotion of staff’s health and healthy workplace (12 items, Cronbach’s alpha 0.67)

1. Have you implemented surveys on
   - 1.1. staff’s job satisfaction? 1 = yes; 2 = survey is taking place first time at present; 3 = no
   - 1.2. staff’s burn-out? 1 = yes; 2 = survey is taking place first time at present; 3 = no
   - 1.3. smoking habits among the staff? 1 = yes; 2 = survey is taking place first time at present; 3 = no

2. Have you carried out a risk analysis on the workplace in your hospital?
   1 = yes; 2 = no

3. Have you set up the training plans for
   - 3.1. doctors 1 = yes; 2 = no
   - 3.2. nurses 1 = yes; 2 = no
   - 3.3. other staff 1 = yes; 2 = no
   - 3.4. top managers 1 = yes; 2 = no
   - 3.5. middle level managers 1 = yes; 2 = no

4. Has your staff participated in health promotion trainings? 1 = yes; 2 = no

5. Have you implemented in your hospital
   - 5.1. an introduction training for new staff? 1 = yes; 2 = no
   - 5.2. stress management programs for staff? 1 = yes; 2 = no

III. Cooperation between hospitals and other providers of health services and patient organizations (three items, Cronbach’s alpha 0.67)

1. Does your hospital have a regular cooperation with providers of
   - 1.1. primary health care services? 1 = yes; 2 = no
   - 1.2. ambulance services? 1 = yes; 2 = no

2. Does your hospital have a regular cooperation with patients’ organizations?
   1 = yes; 2 = no

IV. Professional quality and clinical risk management (nine items, Cronbach’s alpha 0.90)

1. Do you document the following complications and incidences?
   - 1.1. post-surgical clean wound infection 1 = yes; 2 = no
   - 1.2. complications due to anaesthetic procedures 1 = yes; 2 = no
   - 1.3. side effects of the medication 1 = yes; 2 = no
   - 1.4. adverse reactions due to blood transfusion 1 = yes; 2 = no
2. Have you implemented the following guidelines to reduce clinical risks:
  2.1. infection control
      1 = yes; 2 = in the stage of implementation; 3 = the guideline is missing
  2.2. drug prescription
      1 = yes; 2 = in the stage of implementation; 3 = the guideline is missing
  2.3. prevention of bed sores
      1 = yes; 2 = in the stage of implementation; 3 = the guideline is missing
  2.4. blood transfusion
      1 = yes; 2 = in the stage of implementation; 3 = the guideline is missing
  2.5. preoperative assessment of the patient’s status
      1 = yes; 2 = in the stage of implementation; 3 = the guideline is missing