A cross-sectional study on adaptability and pertinence of the “Health Promoting Hospitals” (HPH) initiative in Iran: health professionals’ perspectives

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Key words: Health Promoting Hospitals, Standards, Applicability, Health Professionals, Iran
Parole chiave: Ospedali che promuovono la salute, Standard, Applicabilità, Operatori sanitari, Iran

Abstract

Background. Despite the expansion of the HPH approach and its application in several countries of the world, the conception is still not ascertained in Iran. The main purpose of this study was to investigate the Iranian health professionals’ ideas on applicability of the HPH standards in day-to-day practices of the Iranian hospitals.

Study design. A cross-sectional study.

Methods. The study respondents were 354 physicians, nurses and general managers working in the ten educational hospitals affiliated to the Tabriz University of Medical Sciences in Tabriz the capital city of the East Azarbaijan province, North West of Iran. A validated self-assessment tool was used for data collection about adaptability of the HPH standards i.e. management policy, patient assessment, patient information, healthy workplace promotion and inter-sectoral cooperation from September to November 2016.

Results. The mean adaptability score of the HPH standards (60.0, SD: 13.0, range: 0- 136) represents ambivalent sentiment of the Iranian health professionals. The inter-sectoral cooperation and patient information standards were suggested to be the most and lest adaptable elements respectively. Only 32% of the study respondents endorsed the HPH standards’ overall appositeness in the studied hospitals. Mean adaptability score of the HPH standards was significantly different between male and female health professionals, specialized and general hospitals, small oppose to the medium and large hospitals and those without prior knowledge and the knowledgeable respondents about the HPH standards (P< 0.05).

Conclusions. This study gave an overall snapshot regarding the applicability of the HPH strategy in typical Iranian education hospitals through a wide range of health professionals’ point of views. Understanding the limitations that constrain generalizability of the findings, the study results reflected a part of the gaps existing for application of the HPH strategy in the Iranian hospitals and challenges that might impede its successful conduct.
Introduction

Health promotion in the Ottawa charter was defined as the process of “enabling people to increase control over and to improve their health” (1). Subsequently, a set of five measures has been introduced for health promotion purposes. The recommended proposal includes political, environmental, social, personal and healthcare system dimensions. Reorientation of health services through reorganizing health care systems has been ascertained as one of the effective endeavors to improve population health (1). Integration of health promotion activities into the prevailing health care services was suggested by the World Health Organization (WHO) to boost community level health promotion activities (2, 3). Synchronically, the Health Promoting Hospital (HPH) initiative was induced at the end of 1980s and officially launched in 1988, as a prominent organizational remark to conform health promotion tenet in hospital settings (4). Main objective of the proposition was to encompass hospital care in a conclusive health promoting manner (5). The first experience of HPH advent was exploited in the European Union (EU) (6, 7). Based on the impressive results of the experiences, the International Network of Health Promoting Hospitals (INHPH) was originated by the WHO in 1990. Since then, the circle of inclusion of this network has been expanded (8). So that, it has currently, more than 900 members over 40 countries of the world (9).

The advent also was suggested even to go beyond provision of high quality and comprehensive medical and nursing services or development of corporate identity that excerpt active participatory roles by both patients and health care delivery staff. The HPH initiative could foster interactive links between the hospitals and communities through creating a supportive environment for sustainable development (9).

In line with such a pursuit, five standards were prepended for the HPH:
1. Management policy to guide the organization’s activities by realizing health promotion as an integral part of the organization’s quality management system.
2. Patient assessment to support patients’ treatment plan and improve prognosis to optimize overall health and well-being of patients.
3. Patient information and intervention to inform patients about the planned curative, preventive and health promoting measures for empowering and facilitating their active partnership during planned activities and also facilitating integration of health promotion activities in all the patients’ pathways.
4. Promoting a healthy workplace for all hospitals’ staff through providing a healthy and safe workplace and health promotion activities.
5. Improving inter-sectional and intra-sectional cooperation in health sector at different levels and also with other institutions to enhance integration of health promotion activities within the provided services for all patients (10, 11).

The process of setting standards for health promotion in hospitals was initiated in 2001 (12). Later, Groene et al. developed a self-administered tool in 2004 to be applied for assessment of hospitals for their conformity with HPH standards which was administered in 36 hospitals within nine European countries and its applicability and relevancy were approved (10). All health care organizations such as public and private hospitals and rehabilitation centers that are directly or indirectly involved in patient care may apply these standards (13). The pilot application of these standards indicated their feasibility and applicability in hospitals of all types and sizes within widely diverse health systems (11, 13, 14). Applicability of these standards has also been studied from the perspective of health professionals in the European hospitals (15).
However, HPH in the developing countries is still a new concept and its practice is in embryonic stage. Meager studies that were conducted to examine perspectives of the healthcare stakeholders had revealed positive feedback regarding the HPH strategies and their outcomes for patients, communities and hospitals’ staff (16).

Despite expansion of the HPH approach and its application in several countries of the world, the conception is still not ascertained in Iran (17). Few studies have been conducted on usability of the HPH standards within Iranian hospitals (18, 19). But as a starting point, no study was found to investigate Iranian health professionals’ opinions about applicability of the HPH standards in the practicing hospitals of Iran. Main aim of this study was to investigate the Iranian health professionals’ ideas on adaptability and applicability of the HPH standards in day-to-day practices of the Iranian hospitals.

Methods

This cross-sectional study was conducted in two phases among ten educational hospitals located in Tabriz, the capital city of the East Azarbaijan province, North West of Iran, from September to November 2016. All educational hospitals affiliated to the Tabriz University of Medical Sciences were included in the study; none of which were registered in INHPH. Ethical approval of the study was granted by the Medical Ethics Board of the Tabriz University of Medical Sciences (approval number: IR.TBZMED.REC.1395.438) and all hospitals and health professionals gave signed informed consent before inclusion.

Assessment tool of HPH standards

First phase of the study was adaptability appraisal of the HPH standards within the recruited hospitals. The HPH standards address health promotion activities at five domains i.e. management policy, patient assessment, patient information and intervention, a healthy workplace promotion and intersectoral cooperation. The assessment tool of HPH standards that had been developed by Groene et al., was utilized for data collection purposes (10). The instrument includes five domains: management policy (including 17 appraisal items that can be scored from 0 to 34), patient assessment (containing 8 items that score from 0 to 16), patient information and intervention (enclosing 8 items that score from 0 to 16), promoting a healthy workplace (encompasses 16 items that can be scored from 0 to 32) and continuity and cooperation (comprising 19 items with total score in the range from 0 to 38). The response choices for all items were based on a three-options format: yes (scores 2), partly (scores 1) and no (scores 0). Altogether, the assessment tool has 68 measurable items and the total score could range from 0 to 136) (20). The calculated Cronbach α coefficients for subgroups of items in the Groene et al.’s, study (13) were in the range of 0.77-0.88. In the validation study of the instrument in Iran (2012), some modifications were made to vividly adjust its cultural adaptability and the amended version was applied to evaluate 38 hospitals in 5 different provinces. The Cronbach α coefficients for subgroups of items were in the range of 0.76-0.84 (18) which are almost identical to the calculated coefficient measures in the present study (0.74-0.88).

Phase 1: Adaptability assessment of the HPH standards in the enrolled Iranian hospitals

The required data for adaptability assessment of the domains related to management policy, promoting a healthy workplace and continuity and cooperation were collected through contacting the hospitals’ managers or their deputies as well as the quality improvement and accreditation officers. To collect the necessary data in the domains of patient assessment and patient information and intervention, medical
records of 50 randomly selected discharged patients from the hospitals’ units in the recent 3 months were inspected.

**Phase 2: Applicability assessment of the HPH standards in the enlisted Iranian hospitals**

Applicability assessment of the HPH standards were performed by distributing the HPH standards’ assessment tool that contained two sections (demographic characteristics section and five domains of the HPH standards in the second section) amongst 354 practicing health professionals in the hospitals consisting of physicians, head nurses and general managers who were approached based on a complete enumeration procedure. Considering the number of items in the assessment tool and need for timely concentration to answer the questions and also due to the busy work program of the selected respondents a 7 days’ time frame was deemed for the questionnaires completion. The study respondents were 204 head nurses, 140 physicians and 10 general managers. The response rate in the first group was 90%, 75% and 100% in the second and third groups respectively. The average total response rate in the study was calculated as 85%.

The questioned study participants’ characteristics included age, gender, duration of employment as a health professional (less than 10 years, 10 to 20 years and more than 20 years), current professional position (physician, nurse, managerial staff), and the type of hospital where participants were working (general /specialized). The recruited hospitals were also divided into three groups according to the number of active beds: large size (>400 beds), middle size (200-400 beds) and small size (<200 beds). Moreover, a single question was added to assess previous familiarity of the studied health professionals with the HPH strategy (Do you have had any prior knowledge on the HPH strategy? with answer options of no = 0, somewhat = 1 and yes = 2).

**Data analysis**

Parametric statistical inference was applied to analyze the study data based on the Kolmogorov-Smirnov test’s results using the SPSS 16.0 software (SPSS Inc., Chicago, IL, USA). To examine adaptability of the HPH standards in the assigned hospitals mean scores with their standard deviations were calculated. Sub-group analyses of the applicability scores of the HPH standards within multi-categories (health professionals’ field of expertise, hospitals’ number of active beds, level of prior knowledge about the HPH and length of job experience) and dichotomous categories (gender of the participants and type of the hospitals) were also performed using analysis of variance (ANOVA), Tukey HSD test and t-test, respectively. Applicability of the HPH standards was reported based on the percentage of the answer options. Statistical significance was considered to exist at a priori level of 0.05.

**Results**

*Characteristics of the hospitals and overall adaptability of HPH standards*

Based on the number of active beds, a substantial number of the enrolled hospitals were categorized as small (40%) and middle (40%) size. Eighty percent of the
Adaptability of the HPH’s standards to Iran

Table 1 - Adaptability scores of the Health Promoting Hospitals (HPHs) strategies in the teaching hospitals, Tabriz, Iran.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean HPH adaptability scores (SD)</th>
<th>Range of HPH adaptability scores</th>
<th>Cronbach α coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>60.0 (13.0)</td>
<td>0-136</td>
<td>82%</td>
</tr>
<tr>
<td>Management policy</td>
<td>13.3 (5.9)</td>
<td>0-32</td>
<td>85%</td>
</tr>
<tr>
<td>Patient assessment</td>
<td>6.5 (2.7)</td>
<td>0-16</td>
<td>88%</td>
</tr>
<tr>
<td>Patient information and intervention</td>
<td>5.6 (2.1)</td>
<td>0-16</td>
<td>80%</td>
</tr>
<tr>
<td>Promoting a healthy workplace</td>
<td>14.9 (4.4)</td>
<td>0-32</td>
<td>84%</td>
</tr>
<tr>
<td>Inter-sectoral cooperation</td>
<td>19.7 (5.6)</td>
<td>0-38</td>
<td>74%</td>
</tr>
</tbody>
</table>

Study participants

Mean age of the study attendants was 41.5 with standard deviation of 6.7. Amongst the participants, 61% were nurses, 15.3% had prior knowledge about the HPH strategy. About one third of the study participants had more than 20 years’ work experience in the hospitals. The applicability score of HPH standards was statistically different by sex and type of the hospital (regarding its size and being general or specialized) (P<0.05). Further analysis, applying Tukey HSD test, however, indicated that the observed significant difference was mainly between the small and large size hospitals. The applicability score of the management policy standard was also different amongst the hospitals based on the prior knowledge of the respondents about HPH strategy (P<0.05) (Table 3).

The applicability of patient assessment standards

The applicability of patient assessment standard within the enrolled hospitals was acknowledged by 38% of the study attendants (43.8% of the physicians, 33% of the nurses and 70% of the general managers) (Figure 1). Applicability score of the patient assessment standards was significantly different based on the specialty of the respondents (P<0.05) and the greatest observed difference was in the score of participant nurses (P<0.05). The standards applicability mean score was also highest in the specialized hospitals (Table 3).

The applicability of patient information and intervention standards

The calculated mean score of the patient information and intervention standards indicated a statistically significant difference among the study participants by their specialty and the type of studied hospital (P<0.05). The standards applicability mean
Table 2 - Applicability scores of the HPH standards by characteristics of the study respondents and the enrolled hospitals’ attributes, Tabriz, Iran

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency (%)</th>
<th>Mean (SD) for Applicability of HPH standards</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>90 (30.0)</td>
<td>63.0 (18.9)</td>
<td>0.04</td>
</tr>
<tr>
<td>Female</td>
<td>210 (70.0)</td>
<td>67.3 (16.7)</td>
<td></td>
</tr>
<tr>
<td>Health professional</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse</td>
<td>185 (61.7)</td>
<td>65.7 (17.5)</td>
<td>0.138</td>
</tr>
<tr>
<td>Managerial Staff</td>
<td>10 (3.3)</td>
<td>76.9 (17.4)</td>
<td></td>
</tr>
<tr>
<td>Physicians</td>
<td>105 (35.0)</td>
<td>65.6 (17.0)</td>
<td></td>
</tr>
<tr>
<td>Number of beds</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;200</td>
<td>4 (40.0)</td>
<td>69.3 (16.4)</td>
<td>0.008</td>
</tr>
<tr>
<td>200 - 400</td>
<td>4 (40.0)</td>
<td>68.2 (16.0)</td>
<td></td>
</tr>
<tr>
<td>&gt;400</td>
<td>2 (20.0)</td>
<td>62.2 (18.8)</td>
<td></td>
</tr>
<tr>
<td>Type of hospital</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>2 (20.0)</td>
<td>62.4 (18.8)</td>
<td>0.002</td>
</tr>
<tr>
<td>Specialized</td>
<td>8 (80.0)</td>
<td>68.9 (15.8)</td>
<td></td>
</tr>
<tr>
<td>Prior knowledge on HPH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>46 (15.3)</td>
<td>71.9 (21.3)</td>
<td>0.017</td>
</tr>
<tr>
<td>Partly</td>
<td>130 (43.3)</td>
<td>66.5 (17.7)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>124 (41.3)</td>
<td>63.4 (15.0)</td>
<td></td>
</tr>
<tr>
<td>Job experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;10 years</td>
<td>96 (32.0)</td>
<td>65.5 (17.0)</td>
<td>0.837</td>
</tr>
<tr>
<td>10- 20 years</td>
<td>99 (33.0)</td>
<td>65.5 (18.3)</td>
<td></td>
</tr>
<tr>
<td>&gt;20 years</td>
<td>105 (35.0)</td>
<td>66.9 (17.2)</td>
<td></td>
</tr>
</tbody>
</table>

The applicability score was highest in the specialized hospitals and the nurses had lower mean score than the general managers (Table 3). In total, 34% of the recruited health professionals (40% of the physicians, 30% of the nurses and 40% of the general managers) were in favor of the applicability of this standard in their working hospitals (Figure 1).

The applicability of promoting a healthy workplace standards

About 28% of the attendees (27.6% of the physicians, 28.1% of the nurses and 40% of the general managers) affirmed that the standard of promoting a healthy workplace is applicable in their hospitals (Figure 1). One-way ANOVA and t-test analyses results showed significant differences in the applicability score of the promoting a healthy workplace standards according to the size of studied hospitals, having prior knowledge on HPH strategy and the type of hospitals (general vs specialized) (P<0.05) (Table 3).

The applicability of continuity and cooperation standards

Applicability of the continuity and cooperation standards was ratified by 35% of the study participants (32.4% of the physicians, 35.1% of the nurses and 60% of the managerial staff) (Figure 1). The mean applicability scores of this standard indicated a statistically significant difference between subgroups of the respondents according to their prior knowledge on HPH strategy.
Adaptability of the HPH’s standards to Iran

Table 3 - Sub-group analysis of the applicability scores of the HPH standards in the studied hospitals, Tabriz, Iran.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Management policy</th>
<th>Patient assessment</th>
<th>Patient information and intervention</th>
<th>Promoting a healthy workplace</th>
<th>Continuity and cooperation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health professional</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurse</td>
<td>70.0 (18.9)</td>
<td>64.5 (23.1)</td>
<td>64.8 (21.9)</td>
<td>63.1 (20.4)</td>
<td>65.1 (21.1)</td>
<td>65.7 (17.6)</td>
</tr>
<tr>
<td>Managerial</td>
<td>74.1 (23.6)</td>
<td>83.7 (15.3)</td>
<td>81.2 (14.4)</td>
<td>75.3 (20.2)</td>
<td>76.0 (18.1)</td>
<td>76.9 (17.4)</td>
</tr>
<tr>
<td>Physicians</td>
<td>65.3 (18.0)</td>
<td>71.1 (20.1)</td>
<td>69.1 (21.3)</td>
<td>62.2 (21.0)</td>
<td>64.8 (20.2)</td>
<td>65.6 (17.0)</td>
</tr>
<tr>
<td>Number of beds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 200</td>
<td>72.9 (17.4)</td>
<td>66.7 (23.5)</td>
<td>68.9 (21.6)</td>
<td>67.7 (17.9)</td>
<td>68.8 (18.5)</td>
<td>69.3 (16.4)</td>
</tr>
<tr>
<td>200 - 400</td>
<td>70.3 (18.4)</td>
<td>70.7 (19.5)</td>
<td>69.0 (20.4)</td>
<td>65.8 (19.6)</td>
<td>66.9 (20.2)</td>
<td>68.2 (16.0)</td>
</tr>
<tr>
<td>&gt; 400</td>
<td>64.4 (18.5)</td>
<td>64.5 (23.9)</td>
<td>63.7 (22.8)</td>
<td>58.3 (22.9)</td>
<td>62.0 (21.9)</td>
<td>62.2 (25.9)</td>
</tr>
<tr>
<td>Type of hospital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General</td>
<td>64.7 (18.6)</td>
<td>64.3 (23.6)</td>
<td>63.9 (22.2)</td>
<td>58.6 (23.0)</td>
<td>62.1 (21.8)</td>
<td>62.4 (18.8)</td>
</tr>
<tr>
<td>Specialized</td>
<td>71.4 (18.0)</td>
<td>69.9 (20.8)</td>
<td>69.2 (20.8)</td>
<td>66.9 (18.5)</td>
<td>67.9 (19.5)</td>
<td>68.9 (15.8)</td>
</tr>
<tr>
<td>Prior knowledge on HPH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>73.7 (21.1)</td>
<td>70.2 (24.2)</td>
<td>72.0 (25.7)</td>
<td>59.9 (18.3)</td>
<td>73.5 (23.0)</td>
<td>71.9 (21.3)</td>
</tr>
<tr>
<td>partly</td>
<td>69.0 (18.9)</td>
<td>67.2 (23.3)</td>
<td>65.3 (21.0)</td>
<td>64.3 (21.2)</td>
<td>66.2 (21.1)</td>
<td>66.5 (17.7)</td>
</tr>
<tr>
<td>No</td>
<td>65.9 (16.7)</td>
<td>66.7 (20.4)</td>
<td>66.6 (20.7)</td>
<td>59.9 (18.3)</td>
<td>61.3 (18.5)</td>
<td>63.4 (15.0)</td>
</tr>
<tr>
<td>Job experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;10 years</td>
<td>66.4 (17.3)</td>
<td>70.3 (21.9)</td>
<td>69.8 (22.3)</td>
<td>62.1 (20.7)</td>
<td>64.2 (19.7)</td>
<td>65.6 (17.0)</td>
</tr>
<tr>
<td>10- 20 years</td>
<td>66.9 (20.1)</td>
<td>66.6 (21.7)</td>
<td>67.1 (21.1)</td>
<td>63.1 (22.1)</td>
<td>65.3 (21.9)</td>
<td>65.6 (18.3)</td>
</tr>
<tr>
<td>&gt;20 years</td>
<td>71.9 (17.7)</td>
<td>65.7 (23.1)</td>
<td>64.0 (21.5)</td>
<td>64.2 (20.2)</td>
<td>66.3 (20.7)</td>
<td>66.9 (17.2)</td>
</tr>
<tr>
<td>P-value</td>
<td>P=0.075 F=2.6</td>
<td>P=0.003 F=5.9</td>
<td>P=0.028 F=3.6</td>
<td>P=0.169 F=1.7</td>
<td>P=0.255 F=1.3</td>
<td>P=0.138 F=1.9</td>
</tr>
<tr>
<td>P-value</td>
<td>P=0.005 F=5.3</td>
<td>P=0.093 F=2.3</td>
<td>P=0.117 F=2.1</td>
<td>P=0.004 F=5.7</td>
<td>P=0.067 F=2.7</td>
<td>P=0.008 F=4.9</td>
</tr>
<tr>
<td>P-value</td>
<td>P=0.079 T=-3.1</td>
<td>P=0.03 T=-2.1</td>
<td>P=0.03 T=-2.1</td>
<td>P=0.001 T=-3.4</td>
<td>P=0.017 T=-2.3</td>
<td>P=0.001 T=-3.2</td>
</tr>
</tbody>
</table>

and the type of hospital they are working (p<0.05) (Table 3).

Overall applicability of the HPH standards in the enlisted hospitals was conceded by the 32% of the study respondents (31.3% of the physicians, 31.9% of the nurses and 60% of the general managers) (Figure 1) (Table 3). The mean overall applicability score of the HPH standards were statistically different among subgroups of the study attendees by the size of working hospitals (small, medium and large), the type of hospitals (general versus specialized) and having prior knowledge about HPH strategy (p<0.05). Based on the t-test analysis results the HPH standards were classified by the study attendants as more applicable in the specialized hospitals compared to the general hospitals (p<0.05) (Table 3).

Discussion and conclusions

The aim of the present study was to investigate adaptability and applicability of the HPH standards in the typical Iranian educational hospitals through the working health professionals’ points of views. Of the studied health professionals only about 15% had prior knowledge about HPH strategy and about less than one third of them endorsed applicability of these standards in their daily practices within the recruited hospitals. The mean overall adaptability score of the HPH standards were classified by the study attendants as more applicable in the specialized hospitals compared to the general hospitals (p<0.05) (Table 3).
standards given by the study respondents was 60 (SD = 13) out of 136.

The study findings were also indicative of an easier applicability of the HPH standards in the small and specialized hospitals compared to the medium, large and general hospitals.

Applicability of the HPH standards in the studied hospitals was also influenced by the prior knowledge of the health professionals about HPH strategy and those with better level of familiarity had given higher applicability scores of the standards in daily practices within the studied hospitals. According to the results, about 85% of the approached study respondents had not an acceptable level of knowledge about HPH strategy. Findings of previous studies (15, 21) have shown that such a deficit could pose serious difficulties for the implementation of the initiative in practice. A part of such a failure results from the crucial need for close cooperation among health professionals to successfully execute the required betterment changes (22) towards health promotion objectives and the confounding effect that lack of knowledge could pose on the requisite partnerships. This study’s findings implied that, at least in the enrolled hospitals, knowledge gaps exist about the HPH project and its standards among the key health care providers. On account of this insufficiency, prompt revision is required in the formal and informal educational curriculum of the health and medical academic institutions in Iran. The country has a unique integrated medical education system with health care delivery platform (23-25), which is in practice for about 32 years but these findings represent a major caveat in reaching pre-determined goals in preparing health care professionals for their new roles and responsibilities that is influential in the new millennium.

To sum up, the study results were suggestive of low perceived applicability of the HPH standards in the studied educational hospitals which are in line with the findings of other studies in Iran (18, 19). This is while empirical research evidence exists to support relatively serene applicability
of the standards in a number of European countries (10, 13). Such a difference may reflect the time lag between initiation of the HPH project in EU countries compared to developing countries of the world. It also might be caused by the different inherent infrastructural capacity between the two groups of countries. Old fashioned medical approach of the key decision makers within the health sector in developing countries and their sitting in untouchable ivory towers could be another reason to prevent evolving of different but more utilitarian approach in health care settings.

Generally stated justification in developing countries for dismissing health promotion as a major strategy for health care provision is to have more important priorities such as prevalent diseases, shortage of resources and other public health threats (18, 26). As a result, health promoting initiatives such as the HPH might be regarded as a luxury in these countries (27, 28). This is suggestive of greater impact subjective barriers might have on the perceived applicability of the HPH standards than the real world objective barriers. As a consequent, personal resistance of the hospitals’ employees to change (22, 29) would probably have masked the actual structural barriers that might prevail integration of HPH manifesto into existing health care delivery channels in the studied hospitals.

The computed applicability score in this study was significantly different for male and female participants. The findings suggested that female respondents were more exponent of the HPH standards’ appositeness in the recruited hospitals than the males. This may be a promising upshot, considering that a relatively sizable number of hospitals’ professional staffs in Iran are female. Since, women have generally better communication skills; such a distinctive trait may help cursive implementation of the HPH strategy in the Iranian hospitals. Similar findings in previous studies have also supported the women’s higher level of willingness to work within the HPH framework compared to the men (30, 31). Research evidence also indicated that female health professionals have more passion to deliver preventive services, communicate with their patients and discuss lifestyle and social attributes of their patients (32, 33) in addition to a more positive attitude toward HPH activities and their pursuit (34).

The surveyed general managers in this study revealed a higher degree of confidence about applicability of the HPH standards in their working hospitals which is congruent with the findings of other studies (15, 35). This positive approach of the general managers might be evincive of the probable supports they could provide for serene implementation of the strategy in the future (30, 36). Help to properly fund HPH activities and train other staff are examples of the support that might be expected from the general managers of the hospitals. They may also play key-contact person role when negotiation with upper-level managers of the health system is required (37). Such a pivotal role of the hospitals’ general managers in failure or success of the HPH initiative was reflected in previous studies (38).

The patient assessment and patient information standard according to the study respondents’ point of view was the most challenging standard to be enforced in the hospitals. This impression might be due to the current workload, predominance of biomedical approach in health care provision or paucity of the required commitment for making change (30, 37). Nurses may have an important role in balancing their disease-oriented tasks and health promoting activities in this regard (39). However, the challenges for employing the HPH standards might be atypical (40, 41) in different socio-cultural and organizational settings and require explicit scrutiny.

Based on the study participants’ perspectives, the HPH standards are
preferably to be initially planned for implementation in small and specialized hospitals. Same conclusion was drawn in another study (15) that suggests to start the HPH program in individual departments and clinics rather than large hospitals. Reverse recommendation however, was given to administer the strategy (13) in another study. Methodological and contextual heterogeneity may explain this inconsistency but further research is needed to justify the studies’ results.

In conclusion, this study gave an overall snapshot about the applicability of the HPH strategy in typical Iranian educational hospitals through a wide range of health professionals’ point of views. Understanding the limitations that constrain generalizability of the findings, this study paves the way for further exploration into the degree of preparedness of the hospitals in the Iranian context to adopt HPH strategy. The study findings reflected a part of gap existing for application of the HPH strategy in the Iranian hospitals and challenges that might impede its successful conduct.

Creation of supportive environment for health and re-orientation of health services towards health promoting settings is a global mandate for communities that need to be boosted for the improved effectiveness of the restorative activities. Adaptation of the successful international experiences in local settings could contribute to better utilization of resources in health sector and ameliorate the interweaving patterns of morbidities in local settings. Hospitals are major sites of health care delivery and being hospitalized as a patient or working in a hospital could be an exceptional opportunity for health promotion marketing and satisfying individuals and communities’ health objectives. Several betterment programs are being implemented in the Iranian hospitals but the HPH initiative can be regarded as an umbrella project to direct and crane all efforts across the hospitals’ medium. All available evidences are in favor of taking effective policy decisions to achieve desired outcomes in health systems and the HPH could be considered as one of the imperative candidates to progress public health armamentarium in Iran.

Limitations

All efforts were in vain to control or minimize effect of those factors that could potentially be a threat for the internal validity of the study findings but due to inherent boundaries of the cross-sectional studies e.g. selection, instrumentation, compensatory rivalry and contamination biases the study findings should be prepensed by caution. Non-random selection of the recruited hospitals into the study could also be another source of bias and, as a consequence, the findings could not be generalizable to other educational and non-educational hospitals in Iran. To prevent response bias, collection of reliable data in a participants’ preferred convenient time was intensely in tune with other measures to provide reliable research evidence in support of disclosed results.

Conflict of interests:
The authors declare that there is no conflict of interests.

Funding:
This study was funded by Tabriz University of medical science with Grant Number 5/D/64551-1395-06-31

Acknowledgements:
This article was prepared based on the partial findings of a research project that was conducted as the first author’s (HM) PhD thesis fulfillment requirements in the department of Health Education and Promotion, Faculty of Health, Tabriz University of Medical Sciences, Tabriz, Iran. Ethical approval of the study was granted by the Medical Ethics Board of the Tabriz University of Medical Sciences (approval number: IR.TBZMED.REC.1395.438). The authors would like to thank all study participants: without their kind cooperation this study would have been impossible to conduct.
Adaptability of the HPH’s standards to Iran

**Riassunto**

**Studio trasversale sulla adattabilità e la pertinenza dell’iniziativa “Ospedali che Promuovono la Salute” in Iran. Il parere degli operatori sanitari**

**Premessa.** Nonostante la diffusione e la realizzazione dell’iniziativa “Ospedali che promuovono la salute” in molti Paesi, questa iniziativa non si è ancora diffusa in Iran. Lo scopo principale del presente studio è di indagare quello che pensano gli operatori sanitari iraniani circa la possibilità di applicare gli standard HPH nella pratica quotidiana degli ospedali iraniani.

**Disegno dello studio.** Indagine trasversale

**Metodi.** Destinatari dell’indagine erano i 354 operatori (medici, infermieri ed amministratori) dei dieci ospedali di insegnamento della rete dell’Università di Scienze Mediche di Tabriz, la capitale della Provincia dell’Azerbaijan Orientale, nella parte nord occidentale dell’Iran. Per la raccolta dei dati relativi all’adattabilità degli standard HPH (politiche gestionali, valutazione dei pazienti, informazioni ai pazienti, creazione di posti di lavoro compatibili con la salute degli operatori e cooperazione intersettoriale) è stato utilizzato – nel periodo Settembre-Novembre 2016 - uno strumento di autovalutazione validato.

**Risultati.** Il valore medio dell’adattabilità agli standard HPH (60,0; ds 13,0; intervallo di variazione 0-136) ben rappresenta la posizione ambivalente degli operatori della Sanità iraniani. Gli standard di cooperazione intersettoriale e di informazione ai pazienti appaiono essere gli elementi più e meno adattabili, rispettivamente. Solo il 32% degli intervistati ha approvato l’idoneità complessiva degli standard HPH negli ospedali studiati. Il punteggio medio di adattabilità degli standard HPH risultava significativamente diverso tra gli operatori dei due sessi, tra gli operatori degli ospedali generalisti e quelli degli ospedali specializzati, tra gli operatori degli ospedali di grandi e quelli di piccole dimensioni, e infine tra coloro che erano e coloro che non erano già al corrente della natura degli standard HPH (p<0,05).

**Conclusioni.** Questa indagine ci ha offerto un panorama generale circa l’applicabilità della strategia HPH in tipici ospedali d’insegnamento iraniani, e ciò attraverso un’ampia gamma di pareri degli operatori sanitari. Pur consci dei limiti che impediscono di generalizzare questi risultati, riteniamo che siano emersi con chiarezza i ritardi culturali che si frappongono all’adozione della strategia HPH negli ospedali iraniani e gli ostacoli che, almeno per ora, potrebbero impedirne il successo.

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