Health Promotion in Isfahan Private Hospitals: An Exploratory Factor Analysis

Maryam Yaghoubi¹, Marzieh Javadi², Mohammadkarim Bahadori*¹

¹Health Management and Economic Research Center, Isfahan University of Medical Sciences, Isfahan, Iran
²Health Management Research Center, Baqiyatallah University of Medical Sciences, Tehran, Iran

Received: 2013/8/10 Accepted: 2014/1/10

Abstract

Introduction: The World Health Organization (WHO) standards reorienting of hospitals towards health promotion. The time of this research was determining the effective factors for health promotion in Isfahan’s hospitals.

Methods: This descriptive-analytical study was carried out on private hospitals of Esfahan. Data collection was done by using of SPSS software (Ver18) and Exploratory Factor Analysis procedure.

Results: Overall, in exploratory analysis identified 16 factor in 4 dimension (patient, staff, organization and community health promotion).

Conclusion: Hospitals must design a specific system for improving and evaluating health promotion in order to encourage policymakers and health service administrators to invest resources.

Keyword: Health Promoting Hospitals, Isfahan

Introduction

Hospitals have an important role in the health care system regarding health promotion. They represent the main amount of health service resources, professional skills, medical technology and generally have substantial prestige and well-respected staff. They are seen as credible sources of advice and expertise on health issues beyond their responsibilities for patient-care services (1).

A Furthermore, the integration and productivity of existing standard does not facilitate health development and promotion in hospitals. Therefore, designing the standards for health promotion activities in hospitals is required (2-3).

Recognizing the standards needs for health promotion in hospitals, WHO have established a working group at the ninth International Conference on health promoting hospitals, Copenhagen, May 2001. Thereafter, several working groups and country networks have been working on the development of standards (4). After these three workshops, the standards for health promotion in hospitals are considered to be in their final format (subject to future revision once new evidence emerges).

Due to the nature of these standards, nowadays, role and responsibility of hospitals are health promotion in patient, staff, organization and the community (5).

The World Health Organization’s (WHO) Ottawa Charter for Health Promotion had made a path to the development of a series of ‘settings-based’ health promotion strategies during mid-1980s.

Health promoting hospital (HPH) was one of its most important peculiarities. The progress of HPH has become a series of influential reports that include The Ljubljana Charter on Reforming Health Care, The Budapest Declaration on Health Promoting Hospitals and The Vienna Recommendations on Health Promoting Hospitals (6-10).

Health-promoting hospitals (HPH) were initiated with the WHO model project “Health and Hospital” involving 20 hospitals from 11 European countries by the European Pilot Hospital Project in 1993–1997, at the end of 1980s’ (4).

Health promotion measures focus on both individuals and contextual factors that shape the actions of individuals with the aim to prevent and reduce ill health and improve wellbeing (11). In fact, health promoting programs improve of patients, staff and community general health (12).

Finally, five standards were developed addressing the following issues:

Standard 1: Management policy: Demand that a hospital has a written policy for health promotion. This policy must be implemented as part of the overall organization quality system and is aiming to improve health outcome. It is stated that the policy is aimed for patients, relatives and staff personnel.

Standard 2: Patient assessment: Describes the organizations’ obligation to ensure the assessment of the patients’ needs for health promotion, disease prevention and rehabilitation.
Standard 3: Patient information and intervention
States that the organization should provide patient with information on significant factors concerning their disease or health condition. Health promotion interventions should be established in all patients’ pathways.

Standard 4: Promoting a healthy workplace
It gives the management system the responsibility to establish conditions for the development of the hospital as a healthy workplace.

Standard 5: Continuity and cooperation: Demanding a planned approach to collaboration with other health service sectors and institutions (13).

Materials and Methods
The study samples consist of 33 nurses, 20 managers (the nurses have indirect contact with the patient and hospital administrators are aware of the programs and decisions in hospital) who were selected through stratified randomized sampling. The questionnaire consist of questions in relation to Health promotion dimensions(patient, staff, organization and community Health promotion). The Bartlet test of sphericity was used to establish whether the correlation matrix was an identity matrix and Kaiser-Meyer-Olkin approach was used to determine the sampling adequacy. In order to handle any missing data, an expectation-maximization algorithm was employed. The estimation of parameters was based on the maximum likelihood method.

Data analysis: Exploratory Factor Analysis (EFA) is to calculate factor loading for determining significance of each variable within the factor category. The EFA was performed with SPSS.

Results
The explanatory factor analysis was used to identify the most effective factor which influence the health promotion and also to identify the amount of factor loading on each component (table 1). Maximum probability approach was used for this issue. Exploratory analysis identified 16 factor as follow:

<table>
<thead>
<tr>
<th>dimension</th>
<th>code</th>
<th>Factor</th>
<th>Mean ±SD</th>
<th>Component 1</th>
<th>Component 2</th>
<th>% of variance</th>
<th>Eigen value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Health Promotion (PHP)</strong></td>
<td>PH1</td>
<td>Patient empowerment in self care</td>
<td>2.4 ±.09</td>
<td>.972</td>
<td>.972</td>
<td>43.006</td>
<td>2.150</td>
</tr>
<tr>
<td></td>
<td>PH2</td>
<td>Patient empowerment in participation in treatment</td>
<td>3.6 ±.07</td>
<td>.965</td>
<td>.965</td>
<td>41.247</td>
<td>1.962</td>
</tr>
<tr>
<td></td>
<td>PH3</td>
<td>Patient empowerment in management of chronic illness</td>
<td>2.8 ±.07</td>
<td>.746</td>
<td>.746</td>
<td>14.171</td>
<td>.709</td>
</tr>
<tr>
<td></td>
<td>PH4</td>
<td>Patient empowerment in lifestyle development</td>
<td>3.7 ±.05</td>
<td>.599</td>
<td>.599</td>
<td>1.08</td>
<td>.065</td>
</tr>
<tr>
<td></td>
<td>PH5</td>
<td>Need assessment for different disease patient group</td>
<td>3.6 ±.06</td>
<td>.838</td>
<td>.838</td>
<td>.578</td>
<td>.034</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>PHP</td>
<td>Patient Health Promotion</td>
<td>3.22</td>
<td>.946</td>
<td>.946</td>
<td>63.703</td>
<td>2.508</td>
</tr>
<tr>
<td><strong>Staff Health Promotion (SHP)</strong></td>
<td>SH1</td>
<td>Staff empowerment in lifestyle development</td>
<td>4.7 ±.05</td>
<td>.846</td>
<td>.846</td>
<td>19.199</td>
<td>.828</td>
</tr>
<tr>
<td></td>
<td>SH2</td>
<td>Staff empowerment in self care</td>
<td>2.3 ±.05</td>
<td>.770</td>
<td>.770</td>
<td>15.822</td>
<td>.653</td>
</tr>
<tr>
<td></td>
<td>SH3</td>
<td>Staff empowerment in participation in treatment</td>
<td>3.6 ±.08</td>
<td>.770</td>
<td>.770</td>
<td>15.822</td>
<td>.653</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>SHP</td>
<td>Staff Health Promotion</td>
<td>3.25 ±.05</td>
<td>.936</td>
<td>.936</td>
<td>78.733</td>
<td>2.432</td>
</tr>
<tr>
<td><strong>Organization Health Promotion (OHP)</strong></td>
<td>OH1</td>
<td>Cooperation and coordination with other organizations</td>
<td>2.3 ±.08</td>
<td>.837</td>
<td>.837</td>
<td>18.452</td>
<td>.564</td>
</tr>
<tr>
<td></td>
<td>OH2</td>
<td>Documentation of interventions and results</td>
<td>4.5 ±.03</td>
<td>.852</td>
<td>.852</td>
<td>7.815</td>
<td>.304</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>OHP</td>
<td>Organization Health Promotion</td>
<td>3.4 ±.06</td>
<td>.852</td>
<td>.852</td>
<td>51.000</td>
<td>2.500</td>
</tr>
<tr>
<td><strong>Community Health Promotion (CHP)</strong></td>
<td>CH1</td>
<td>Community empowerment in self care</td>
<td>4.5 ±.04</td>
<td>.748</td>
<td>.748</td>
<td>17.770</td>
<td>.978</td>
</tr>
<tr>
<td></td>
<td>CH2</td>
<td>Community empowerment in participation in treatment</td>
<td>4.6 ±.04</td>
<td>.734</td>
<td>.734</td>
<td>16.592</td>
<td>.630</td>
</tr>
<tr>
<td></td>
<td>CH3</td>
<td>Community empowerment in management of chronic illness</td>
<td>3.3 ±.06</td>
<td>.667</td>
<td>.667</td>
<td>13.633</td>
<td>.482</td>
</tr>
<tr>
<td></td>
<td>CH4</td>
<td>Community empowerment in lifestyle development</td>
<td>2.4 ±.06</td>
<td>.549</td>
<td>.549</td>
<td>7.003</td>
<td>.400</td>
</tr>
<tr>
<td></td>
<td>CH5</td>
<td>Strengthen community infrastructure to meet public needs</td>
<td>3.3 ±.07</td>
<td>.549</td>
<td>.549</td>
<td>3.6 ±.06</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>CHP</td>
<td>Community Health Promotion</td>
<td>3.6 ±.06</td>
<td>.852</td>
<td>.852</td>
<td>51.000</td>
<td>2.500</td>
</tr>
</tbody>
</table>
Five factors for Patient Health Promotion (PHP), 3 factors for Organization Health Promotion (OHP), 4 factors for Staff Health Promotion (SHP) and 5 factors for Community Health Promotion (CHP). Summary results of the EFAs are displayed in Table 1. A factor loading value of + or - 0.30 is considered significant, and a factor loading of + or - 0.50 is considered significant. In the Rotated Component Matrix of Patient Health Promotion (PHP), factors were in two component. Patient empowerment in self-care with factor loading of 0.979 was the first priority. In the Staff Health Promotion (SHP), Staff empowerment in lifestyle development with factor loading of 0.906 was the first priority and 62% of its variance is explained by this factor. Furthermore, In the Organization Health Promotion (OHP) dimension, Cooperation and coordination with other organizations with factor loading of 0.926 was the first priority and 77% of its variance is explained by this factor (Table 1). At Community Health Promotion (CHP) dimension Community empowerment in self-care with factor loading of 0.796 was the first priority and 48% of its variance is explained by this factor. Priority and 48% of its variance is explained by this factor.

Discussion
The purpose of this study is to propose an effective factor for HPH by using Exploratory Factor Analysis. In the health promotion dimension, the community Health promotion had the highest amount (3.6 ±0.06) showing the Importance of Community empowerment; also expresses in another study (14). In fact, improvement of community health leads to health promotion of hospital.

In this study a WHO health promoting hospital dimension was used; which expressed four domains for health promotion in the hospital (patient- oriented, staff-oriented, organization and community-oriented) therefore the results are similar to other researches (15-18). Documentation of interventions had a highest score in organization health promotion domain. Self-care or self-maintenance that is mention in 18 specific HPH core strategies (15) is one of the important factors in this study, Patient empowerment in self-care had a first priority with 0.972 factor loading in Patient Health Promotion (PHP), and staff empowerment in self-care had a second priority with 0.946 factor loading in staff Health Promotion. Community empowerment in self-care had a first priority with 0.748 factor loading in Community Patient Health Promotion.

Patient-need assessment is a one component of patient health promotion with 0.938 factor loading. Also Green study (15) emphasis risk factors and health needs as important factors of patients’ assessment. Furthermore, another study show that Identification of customer needs is a fundamental element in any organization (19).

Patient empowerment in management of chronic illness had the least score in patient health promotion (2.8 ±0.07). Although a literature search indicates that a large number of studies have considered health promotion amongst chronically patients (19-23).

Conclusion
Hospitals must design a specific system for improving and evaluating health promotion (24-25) and therefore encourage policy-makers and health service administrators to invest resources in HPH. After more than a decade of promotion project initiation from WHO, HPH is now proved not to be only a vision, but also a concrete development strategy for hospitals.

Acknowledgments
The authors would like to thank all of the members of the survey team, hospitals personnel and whoever participated in the study.

References
14. Ahonen, Pia. Empowering local people at different ages for health promotion and healthy lives by enhancing the sup-
portiveness of health and social systems in four municipalities.