The positive impact of Accreditation on hospital climate patient safety culture and patient safety indicators-4 years’ Follow up in Taiwan

1) Context:
Taiwan started hospital accreditation in 1978, the fourth country in the world and the first in Asia. In 1999, Joint Commission of Taiwan (JCT) was authorized the accreditation task by the Ministry of Health and Welfare. Since then, JCT has been in charge of the development and implementation of hospital accreditation in Taiwan.

2) Problem:
This study aims to examine how the accreditation benefits patient safety culture (PSC) and patient safety indicators (PSI) in hospitals.

3) Assessment of problem and analysis of its causes:
Now, 96% of the hospitals in Taiwan receive a hospital accreditation every 3-4 years. JCT’s accreditation focuses on the teamwork within the healthcare crew and hospitals.

4) Intervention:
Two sets of data, PSC and PSI in the year of accreditation and in the previous year of accreditation, were compared and contrasted.

5) Strategy for change:
JCT’s accreditation focuses on the teamwork among the healthcare crew and hospitals. The accreditation was designed to direct a patient-oriented administration and operation system. There are 196 articles about the Hospital Accreditation Standards of JCT. Nearly half of the articles are related to PSC aspects. When a hospital is preparing for the accreditation, its standardized operation system is usually emphasized, such as the execution rate of VAP care bundle.

6) Measurement of improvement:
From 2011 to 2014, a total of 16 hospitals participated both in the TPSCS and TCPI. Respondents of the TPSCS were employees of healthcare institutions and were tested through the Chinese version of the Safety Attitude Questionnaire (SAQ-C). The SAQ-C is consisted of 26 core questions for 5 major aspects: teamwork climate (TC), safety climate (SC), job satisfaction (JS), perception of management (PM), and working conditions (WC). In all cases, perspectives with mean scores of more than 4 were considered positive responses. To ensure data quality, a questionnaire with the same answer or containing many missing data were considered to be invalid in the data cleaning process. 23 general care patient safety related indicators were also collected from TCPI.

7) Effects of changes:
The results show that in the accreditation year, the PSC in hospitals tends to improve significantly. However, the ventilator associated pneumonia in word (VAP) tends to decrease in a significant manner.

8) Lessons learnt:
It is learnt that when a hospital has better PSC, it tends to have better teamwork and safety climate. Moreover, the execution rate of VAP bundle tends to be increased and the happening of ventilator associated pneumonia tends to be decreased.

9) Messages for others:
Positive teamwork and safety climate were helpful in enhancing safety care but not patient safety indicators. Identification of patient safety risks should be incorporated early in order to achieve the goal of prevention. Although the results show that there is a positive correlation between patient safety culture and patient safety indicators, cause-and-effect relationship needs to be identified in future studies.

Table 1 The effect of hospital accreditation and patient safety culture

<table>
<thead>
<tr>
<th>SAQ perspective</th>
<th>Previous year of accreditation</th>
<th>The year of accreditation</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teamwork Climate</td>
<td>53</td>
<td>59</td>
<td>0.02</td>
</tr>
<tr>
<td>Safety Climate</td>
<td>48</td>
<td>54</td>
<td>0.01</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>47</td>
<td>52</td>
<td>0.05</td>
</tr>
<tr>
<td>Perception of Management</td>
<td>44</td>
<td>50</td>
<td>0.04</td>
</tr>
<tr>
<td>Working Conditions</td>
<td>51</td>
<td>56</td>
<td>0.13</td>
</tr>
</tbody>
</table>

Note: N=15

Table 2 The effect of hospital accreditation and the ventilator associated pneumonia in word

<table>
<thead>
<tr>
<th>PSI indicator</th>
<th>Previous year of accreditation</th>
<th>The year of accreditation</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAP</td>
<td>0.03</td>
<td>0.01</td>
<td>0.04</td>
</tr>
</tbody>
</table>

Note: N=15

Chien Ming Lo
Coordinator
Division of Quality Improvement
Joint Commission of Taiwan
E-mail: chienming@jct.org.tw
TEL: 886-2-89643028

www.jct.org.tw