Strategies for Improving Patient Safety Culture: Taiwan Experiences

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Outlines
- Taiwan Patient Safety Culture Survey results and interpretation
- Strategies to improving safety culture
- Emerging challenges
- Conclusions

Joint Commission of Taiwan (JCT)
- Taiwan Joint Commission on Hospital Accreditation (old name) since 1999
- Non-for-profit, non-government, organization

Taiwan Patient Safety Culture Survey
by Chinese-version Safety Attitude Questionnaire since 2007

History of TPSCS
- 2006 Pilot validity study at the Taipei Veterans General Hospital
- 2007 First large scale survey in Taiwan, 200 hospitals participated
- 2009 Nationwide paper-based survey
- 2011 Voluntary web-based survey
- 2011 Hospital accreditation standard
- 2014 Adding on Resilience and Work-life balance survey
Taiwan Patient Safety Culture Survey

- From paper-based to online survey by JCT
- Once a year since 2009
- Voluntary participation: from 38~79 hospitals
- The results of survey were analyzed and returned feedback to participating hospitals as a mean of
  - internal measurement
  - external benchmarking
  - a parameter of safety intervention

**TPSCS (2009 to 2014)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
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<td>28</td>
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<td>51</td>
<td>52</td>
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<td>11</td>
<td>4</td>
<td>18</td>
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<tr>
<td>Total</td>
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<td>39</td>
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<td>31,651</td>
<td>44,061</td>
<td>50,601</td>
<td>66,504</td>
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</table>

Source: JCT

**Instrument and Measures**

- SAQ (Chinese version) with 30 items
- Employees with at least 4-weeks experience at the hospital units
- **5 point Likert scales:**
  - Strongly agree, Slightly Agree, Neutral, Slightly disagree, Strongly disagree
- **Average positive response rate (%)**
  - Percentage of caregivers strongly and slightly agree to a given safety culture dimension of a unit, aggregating to a hospital

**Teamwork (2009~2014)**

**Safety Climate (2009~2014)**
Working Conditions (2009~2014)

Perception to Management (2009~2014)

Job Satisfaction (2009~2014)

Stress Recognition (2009~2014)

Significant Varieties among Participants

Variations among Clinical Units

<table>
<thead>
<tr>
<th>TW</th>
<th>SC</th>
<th>JS</th>
<th>SR</th>
<th>FM</th>
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<td>XCU</td>
<td>53.97</td>
<td>43.85</td>
<td>46.71</td>
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<tr>
<td>OR</td>
<td>50.30</td>
<td>45.44</td>
<td>46.79</td>
<td>52.91</td>
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<td>ER</td>
<td>56.48</td>
<td>47.78</td>
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<td>Phm</td>
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<td>50.49</td>
<td>51.69</td>
<td>58.38</td>
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<td>OB/GYN</td>
<td>57.25</td>
<td>53.76</td>
<td>55.12</td>
<td>51.96</td>
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</table>

An example of one medical center in Taipei, TPSCS 2013
**Relationship to Safety Parameters**

<table>
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<tr>
<th>PSC Indicators</th>
<th>Teamwork</th>
<th>Patient Safety Climate</th>
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<tr>
<td>ICU BSI</td>
<td>⊙</td>
<td>⊙</td>
</tr>
<tr>
<td>ED unscheduled return</td>
<td>⊙</td>
<td></td>
</tr>
<tr>
<td>ED unscheduled return</td>
<td>⊙</td>
<td></td>
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<tr>
<td>Fall</td>
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**Trend Analysis**

- Growing participation on a voluntary basis
- The average score is below 60% for all
- Continuous participants are more likely to maintaining high scores than discontinuous ones.
- Large-scale and teaching hospitals had higher scores than small-scale and non-teaching hospitals
- Variations among hospitals and units
- A significant drop for all dimensions in 2014

**Respondents by Professions**

- 59,092 respondents
- 12% Doctors
- 11% Nurses
- 9% Technicians
- 5% Pharmacists
- 9% Non-medical staff
- 59% Rehabilitation

**Teamwork by Professions (2009~2014)**

- Continuous participants are more likely to maintaining high scores than discontinuous ones.
- Large-scale and teaching hospitals had higher scores than small-scale and non-teaching hospitals
- Variations among hospitals and units
- A significant drop for all dimensions in 2014

**Safety Climate by Professions (2009~2014)**

**Job Satisfaction by Professions (2009~2014)**
Managers vs. Non-managers

Differences among Disciplines
- Significant differences among professions
- Physicians had the highest positive responses among all professions in each dimension
- TW and WC: worst felt by clerks, non-medical staffs
- SC: best for physicians and worst for clerks
- Managers had higher positive response than non-managers

No Actions, No Improvement
Safety culture surveys:
Describing the water to a drowning man; they tell you how bad things are but do little to help in solving the problem. (Fleming 2003)

STRATEGIES AND ACTIONS FOR SAFETY CULTURE IMPROVEMENT

Feedback and Benchmarking
- Participating hospital received its own results and de-identified group mean
- Hospital and unit levels
Team Resource Management (TRM) Workshop
- TeamSTEPPS (AHRQ)

Train- the-Trainers & Simulation
- Trainer’s courses
- Simulation for PGYs and resident doctors

TRM Workshop for Frontline Workers

TRM: Case Study and Experience Sharing

Non-punitive Safety Reporting Systems
- Hospital reporting system
  - Mandated by accreditation standards since 2011
  - RCA and HFMEA and learning cases

- Taiwan Patient-safety Reporting System
  - by Joint Commission of Taiwan since 2005
  - Nation-wide, independent system, Voluntary participation
  - Anonymous reporting and de-identification
  - Non-punitive
  - Mutual learning and sharing

Growing Participation and Reporting (2005-2015)
Applications of Safety Reporting

- Quarterly and annual safety reports
- Alerts, Learning Cases, Safety guidelines
- CME teaching material
- Medical education references
- Nationwide patient safety goals

Reporting Events in Each Category (2014)

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<tr>
<th>Category</th>
<th>Events</th>
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<tr>
<td>Medication</td>
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<td>16,413</td>
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<td>Taking</td>
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<td>Violence/Suicide</td>
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<td>Others</td>
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Nationwide Patient Safety Goals

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</tbody>
</table>

Patient Engagement

Annual Patient Safety Awareness Week

2004 05~06 2007~08 09~10 11~12 2004年 05~06年 07~08年 09~10年 11~12年 I Care I Join Count on You and Me I Involve I Engage I Care I Join

Leadership Summit for Safety

- Top-down
- Minimize gaps between managers and staffs

Accreditation and Safety

- Efficient
- Safe
- Patient-centered
- Effective
- Timely
- ACT

PLAN
DO
CHECK
Equal
Patient Safety is the core of Hospital Accreditation Standards in Taiwan

**Hospital management standards**

- Hospital Operations Strategy: Rights and Responsibilities of patient and family
- Staff Management and Support Systems
- Human Resource Management: Care Implementation and Evaluation
- Staff Education and Training: Care of High Risk Patients
- Medical Record, Information and Communication Management: Medication Safety
- Facility and Environment Safety: Anaesthesia and Surgical Care safety
- Patient-focused Service and Management: Infection Prevention and Control
- Risk Management and Emergency Response: Clinical Laboratory, Pathology and Radiology

**Clinical Practice Standards**

- Medical Care Quality Improvement
- Education and Training
- Care of High Risk Patients
- Medication Safety
- Anaesthesia and Surgical Care safety
- Infection Prevention and Control
- Clinical Laboratory, Pathology and Radiology

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Employee’s Positive Safety Attitudes Increased after Accreditation

A study of 10 hospitals in Taiwan

**SAQ % of positive attitudes**

- Teamwork
- Safety Climate
- Job Satisfaction
- Perception of Management
- Working Conditions

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EMERGING CHALLENGES TO SAFETY

- High Patient Volume
- Manpower Shortage
- Burnout Staffs

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Intense Relationship between Patients and Medical Staffs

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Resilience

- Disruptive behavior management
- Beware of negative loops in self and others – break them
- Active Constructive Responding

- Prefrontal protection
- Sleep Diet (structure additional sleep into your week; 1 hour naps; Sleep < 3 or > 5 hours)
- Time outside

- Three Good Things
- Insert people into equations, take another perspective, humble curiosity

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SelfCare

Mindfulness

Relationships

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Safety Culture & Resilience

Two overall domains of interest:
- Teamwork Climate (interaction norms: <60% needs action)
- Safety Climate (pt safety norms: <60% needs action)

Three supporting domains:
- Stress Recognition
- Resilience
- Work-Life Balance

J. Bryan Sexton, PhD. 2012

Taiwan Patient Safety Culture Survey
by Chinese-version Safety Attitude Questionnaire since 2014

Add on:
1. Resilience
2. Work-life-balance

SAQ-C+

CONCLUSIONS

Safety Culture Cycle:
Top-down Support, Bottom-up Effort

Patient Safety

Healthy Healthcare Workers

Safety Environment and culture

Thank You for Your Attention