

Hospital survey on patient safety culture in Yunnan province from the western China

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January 16.2017



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Background

- ◆ Patient safety is one of the greatest concern throughout the world.
- ◆ A **positive patient safety culture** has been considered as one of the most critical components which could **improve** the **quality** and **safety** in healthcare.
- ◆ It is important to measure safety culture in order to understand and improve patient safety.



Background

Patient
Safety
Culture
(PSC)

The product of individual and group **values, attitudes, perceptions, competencies** and patterns of **behavior** that determines an organization's health and safety management.

Hospital Survey on Patient Safety Culture (HSOPS)

- It is developed by the US Agency for Healthcare Research and Quality (AHRQ).
- It has been used to assess patient safety culture in 45 countries including China.



Background

• However, HSOPS was distributed only in big cities of the central and eastern China, such as Beijing, Shanghai, and Guangzhou and no study focus on the PSC in the western China.

Aim

To reveal the situation of PSC in tertiary hospitals in Yunnan which is a big province in western China.

Methods: Study populations

◆ A cross-sectional survey

Number of hospitals	7 tertiary hospitals
Total number of nurses	3550 nurses
Number of respondents	2661 nurses
Response rate of all respondents	75.00%
Survey period	2015.12-2016.3

Methods: Questionnaire

◆ Hospital Survey on Patient Safety Culture (HSOPS)

Dimensions	
<p>D1. Teamwork Within Units</p> <p>D2. Supervisor Expectation & Actions Promoting Patient Safety</p> <p>D3. Organizational Learning-Continuous Improvement</p> <p>D4. Management Support for Patient Safety</p> <p>D5. Overall Perceptions of Safety</p>	<p>D6. Feedback & Communication about Error</p> <p>D7. Communication Openness</p> <p>D8. Frequency of Events Reporting</p> <p>D9. Teamwork Across Hospital Units</p> <p>D10. Staffing</p> <p>D11. Hospital Handoffs & Transition</p> <p>D12. Nonpunitive Response to Error</p>
Outcome Measure	Background variable
<p>E. Patient Safety Grade</p> <p>G. Number of Events Reported</p>	<p>Education</p> <p>Academic titel</p> <p>Working hours</p> <p>Have/no interaction with patient, and so on</p>



Methods : Calculation

- The proportion of positive responses (**Percent Positive Score**) was calculated for each dimension.

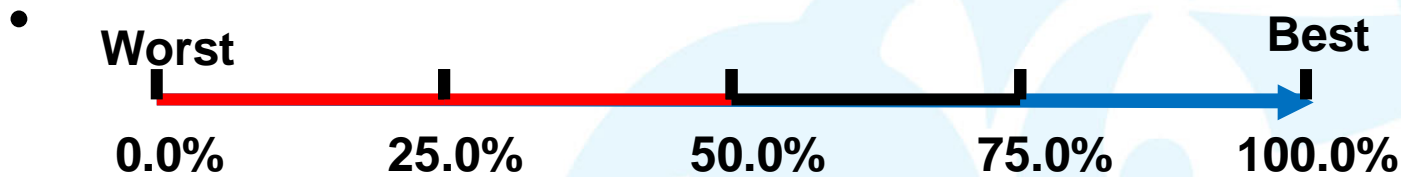
- | | | |
|-------------------------|-------------------------|-----------------------------|
| – Strongly disagree | Never | } <i>Positive responses</i> |
| – Disagree | Rarely | |
| – Neither | Sometimes | |
| – Agree | Most of the Time | |
| – Strongly Agree | Always | |

$$\text{Percent Positive Score} = \frac{\text{Number of positive responses in the dimension}}{\text{Total number of responses in the dimension}}$$



Methods: Data analyses

- Percent Positive Score ranged from 0 to 1 with higher scores indicating a more positive PSC.



- Percent positive score more than 75% was considered as **superior dimension**.
- Percent positive score less than 50% considered as **inferior dimension**.



Methods: Data analyses

Dimensions	
D1. Teamwork Within Units	D6. Feedback & Communication about Error
D2. Supervisor Expectation & Actions Promoting Patient Safety	D7. Communication Openness
D3. Organizational Learning-Continuous Improvement	D8. Frequency of Events Reporting
D4. Management Support for Patient Safety	D9. Teamwork Across Hospital Units
D5. Overall Perceptions of Safety	D10. Staffing
	D11. Hospital Handoffs & Transition
	D12. Nonpunitive Response to Error



Tukey's test

Group 1: < 40 hours / week
 Group 2: 40~60hours / week
 Group 3: ≥ 60 hours / week

Work hours

T test

Group 1: Nursing school
& College
 Group 2: Bachelor degree
or above

Education

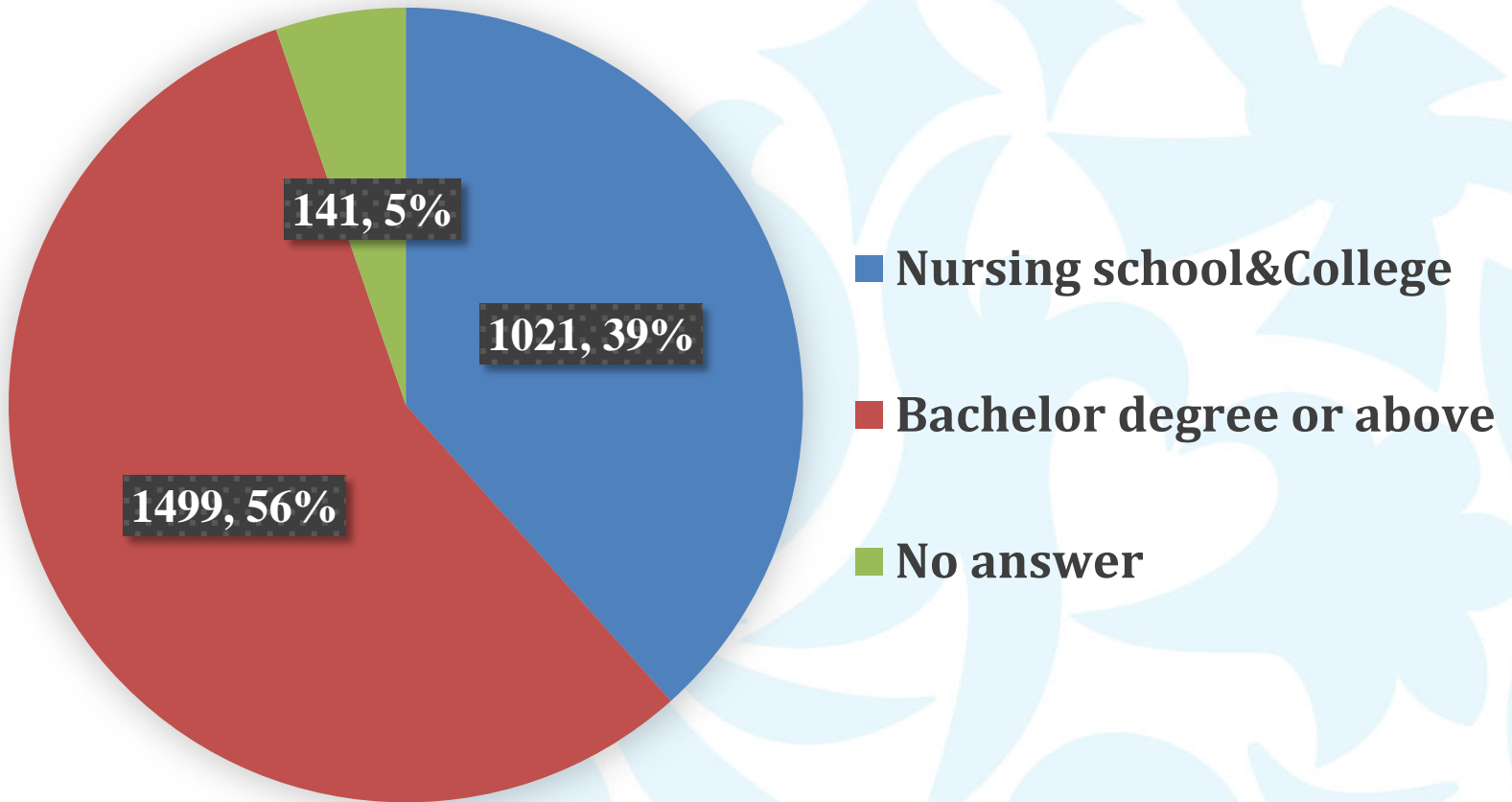
T test

Group 1: Junior title
 Group 2: Senior title

Academic title

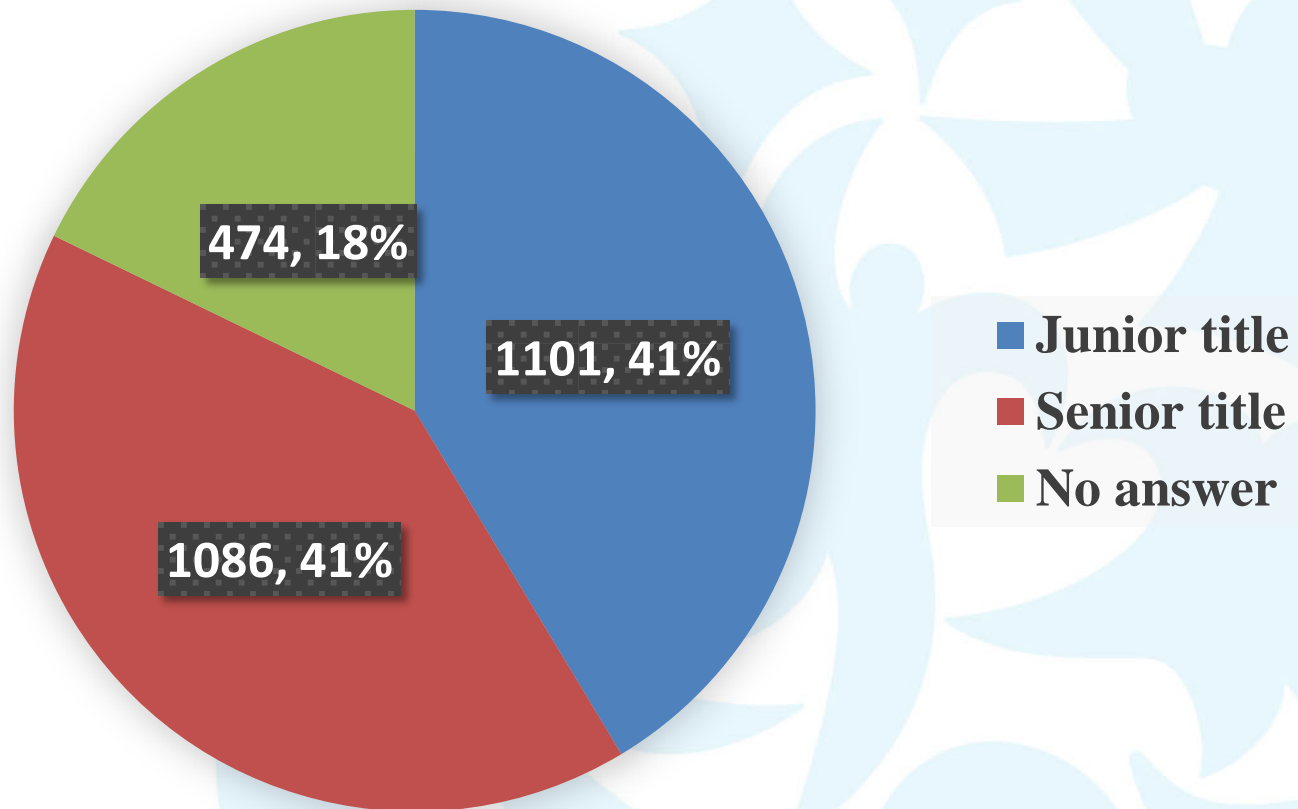
Result: Respondents' characteristics

Education



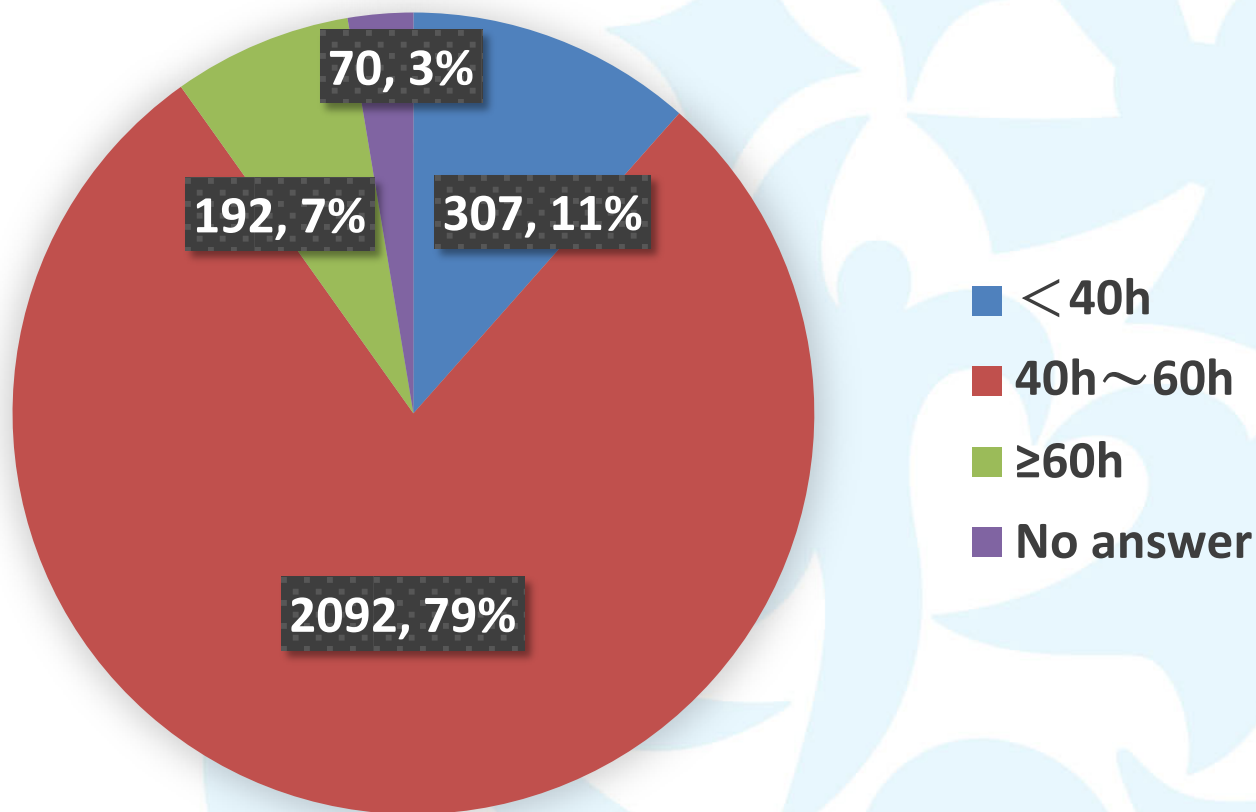
Result: Respondents' characteristics

Academic title

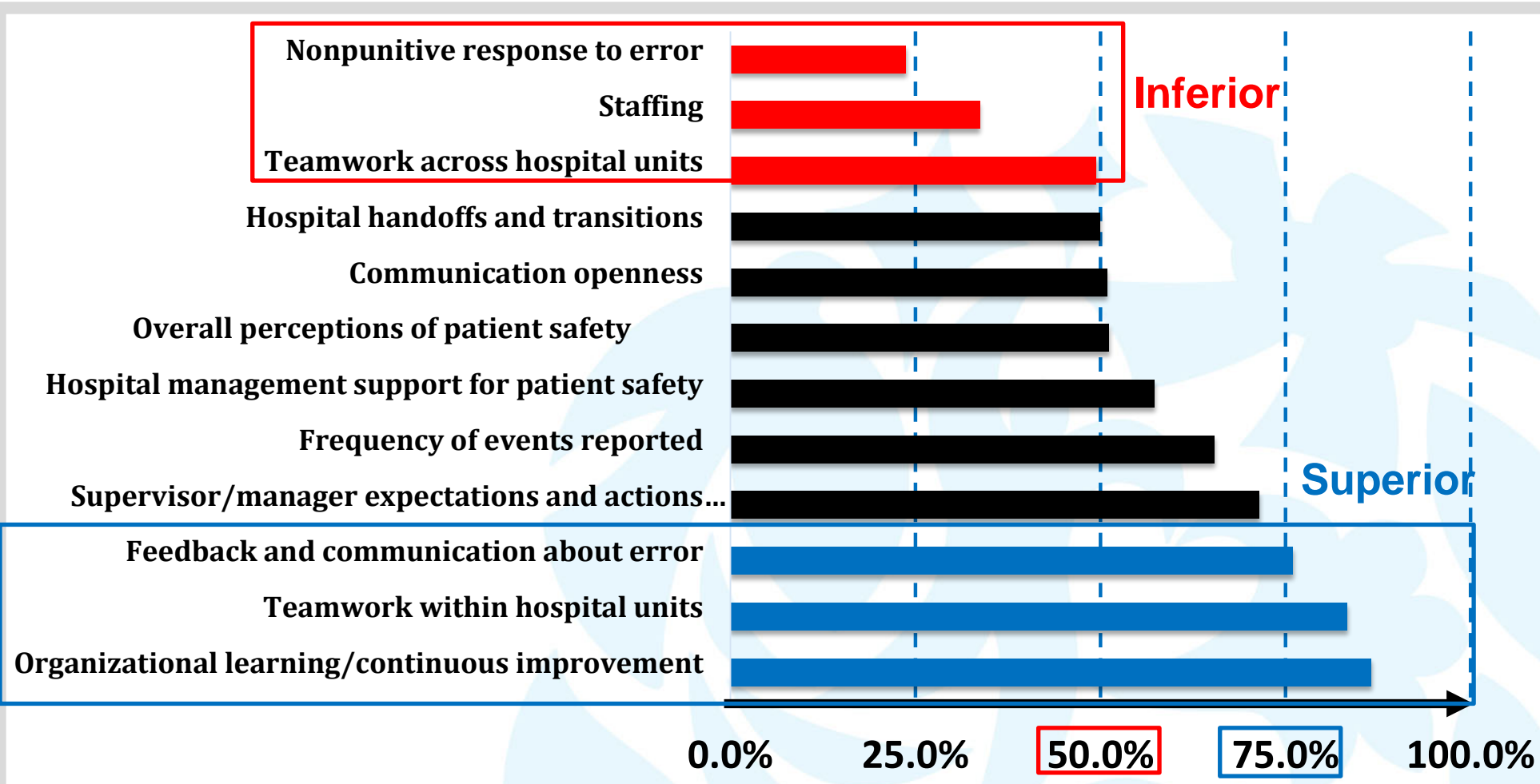


Result: Respondents' characteristics

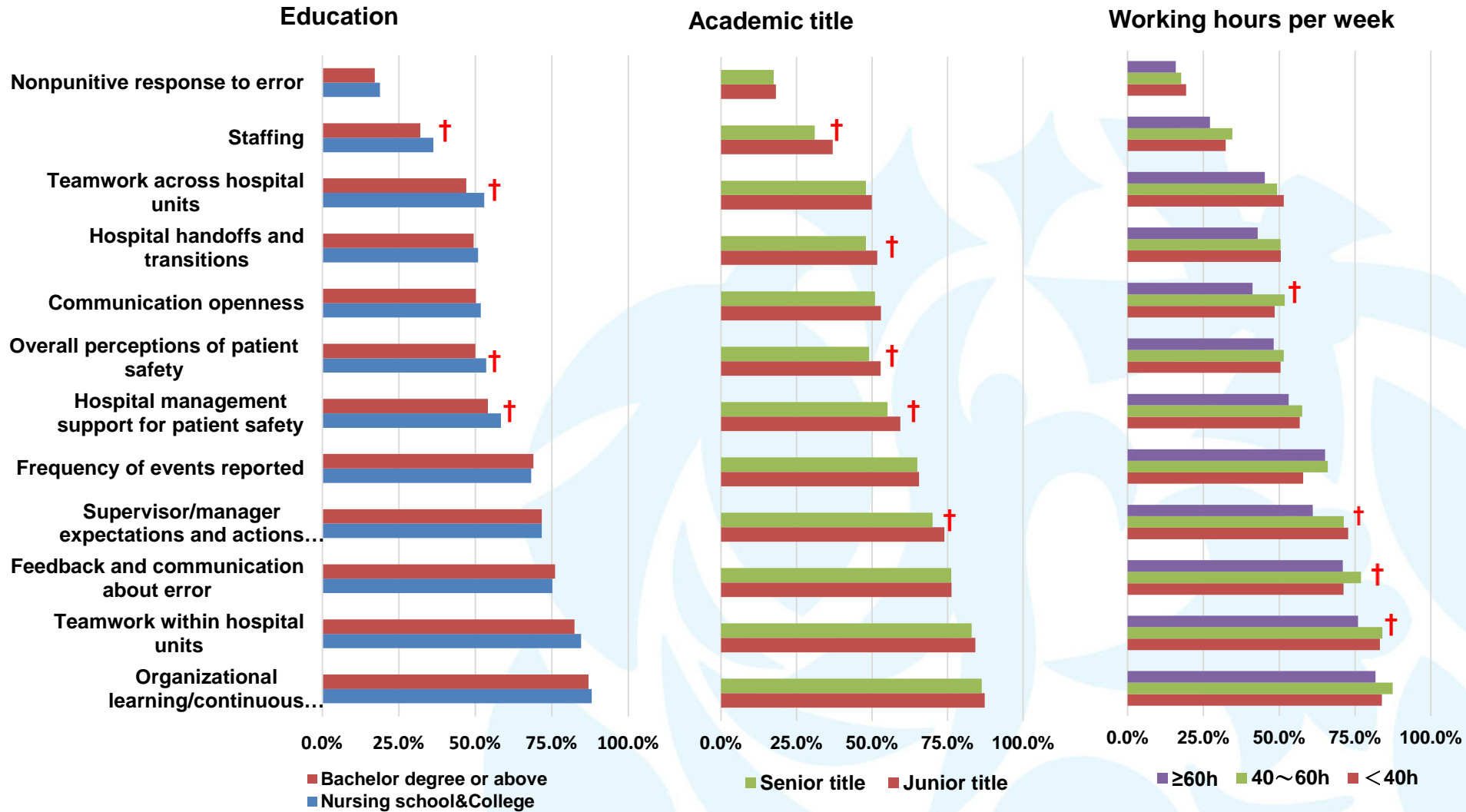
Working hour per week



Result: Percent positive scores in each dimension



Result: Effect of Variables on 12 dimensions



Discussions & Conclusions

- ◆ **Two superior dimensions, “Teamwork within Hospital Units” and “Organizational Learning-Continuous Improvement” and two inferior dimensions, “Staffing” and “Nonpunitive response to error”, in Yunnan hospitals were same as hospitals’ in other areas of China.**
- ◆ **“Feedback and Communication about Error” was superior and “Teamwork across hospital units” was inferior dimensions in Yunnan hospitals.**

Discussions & Conclusions

- To improve PSC in Yunnan hospitals, managers may need more effort to build a more positive culture of nonpunitive response to error, promote hospital units coordinate well with each other and adjust staffing.
- Nurses with bachelor degree or above or senior title gave a lower evaluation that may be linked to their higher expectations promoting PSC.



Thank you.

