



# Reporting quality of Continuous Quality Improvement (CQI) studies in nursing field published in China needs improvements.

## The Problem

Quality is an important guarantee and a critical step of nursing work. Hence, the quality improvement study has received extensive attention. However, large deviations are existed in the quality improvement studies in the aspect of reporting due to the differences in research design and intervention strategies.

## Methods

- We searched Chinese biomedical literature database (CBM), China National Knowledge Infrastructure (CNKI) and WanFang database from the inceptions to February 2019. CQI studies in nursing field were all included.
- A scoring rubric was designed according to the 18 items from SQUIRE 2.0 guidelines which published in 2015. Each item counted for one score, and the specific score of each item was based on the information that the including studies reported. And overall scores were summed up the 18 items, which was defined as 'high' (12.1 to 18), 'medium' (5.1 to 12), and 'low' (0 to 5).

## Key Results

- Ultimately, 35 CQI studies were included, which the overall scores ranged from 3.3 to 10.1 (6.2±1.6).
- The reporting rate of 11 items was less than 80%, and that of 15 items was less than 50%. Particularly, four items (item 10, 13 16 and 17) were never completely reported.
- Nursing journals reported well on item 8, 9 and 11 than non-nursing journals, and had higher score (p=0.004).
- Studies of China Scientific and Technical Papers and Citations index (CSTPCD-index) journals were better reported on item 8, 9 and 14, with better score than the rest (p=0.0208).
- Studies published after 2015, which also scored higher than those before 2015 (p=0.0259), were well reported on item 2 and 10.

| Items                           | Reporting rate (N=35) | Full reporting rate (N=35) |
|---------------------------------|-----------------------|----------------------------|
| 1. Title                        | 35, 100.0%            | 35, 100.0%                 |
| 2. Abstract                     | 34, 97.1%             | 13, 37.1%                  |
| 3. Problem description          | 20, 57.1%             | 1, 2.9%                    |
| 4. Available knowledge          | 1, 2.9%               | 1, 2.9%                    |
| 5. Rationale                    | 8, 22.9%              | 8, 22.9%                   |
| 6. Specific aims                | 32, 91.4%             | 7, 20.0%                   |
| 7. Context                      | 26, 74.3%             | 8, 22.9%                   |
| 8. Intervention(s)              | 35, 100.0%            | 11, 31.4%                  |
| 9. Study of the intervention(s) | 19, 54.3%             | 9, 25.7%                   |
| 10. Measures                    | 24, 68.6%             | 0, 0.0%                    |
| 11. Analysis                    | 19, 54.3%             | 19, 54.3%                  |
| 12. Ethical considerations      | 2, 5.7%               | 2, 5.7%                    |
| 13. Results                     | 35, 100.0%            | 0, 0.0%                    |
| 14. Summary                     | 22, 62.9%             | 5, 14.3%                   |
| 15. Interpretation              | 30, 85.7%             | 1, 2.9%                    |
| 16. Limitations                 | 2, 5.7%               | 0, 0.0%                    |
| 17. Conclusions                 | 18, 51.4%             | 0, 0.0%                    |
| 18. Funding                     | 2, 6.7%               | 2, 6.7%                    |

|                             | Mean | SD  | t-value | p      |
|-----------------------------|------|-----|---------|--------|
| Nursing journals            | 7.0  | 1.5 | 3.0.97  | 0.004  |
| Non-nursing journals        | 5.4  | 1.3 |         |        |
| CSTPCD journals             | 6.9  | 1.7 | 2.4287  | 0.0208 |
| Non-CSTPCD journals         | 5.7  | 1.4 |         |        |
| After SQUIRE 2.0 published  | 7.0  | 1.1 | 2.3324  | 0.0259 |
| Before SQUIRE 2.0 published | 5.7  | 1.8 |         |        |
| Total                       | 6.2  | 1.6 |         |        |

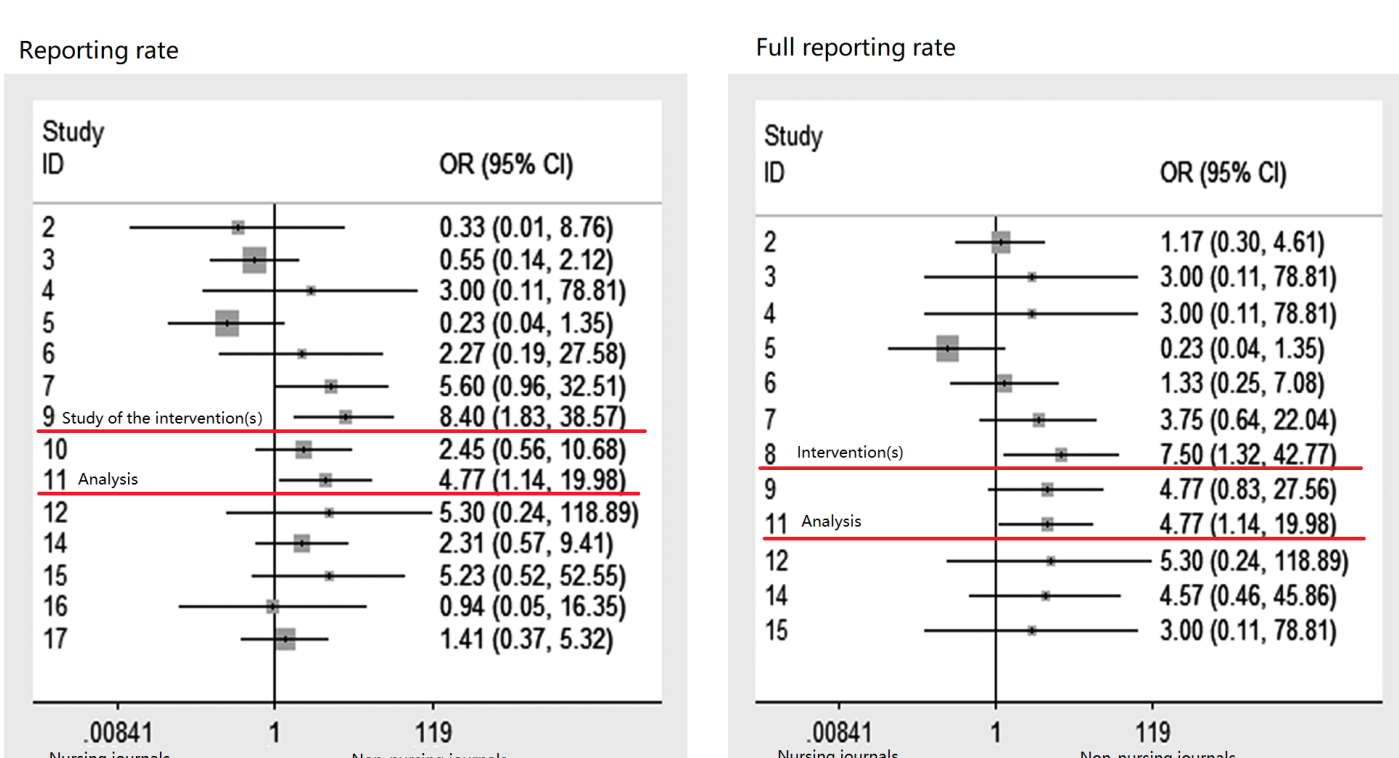


Figure 1 Comparison of the CQI studies published in nursing journals and non-nursing journals.

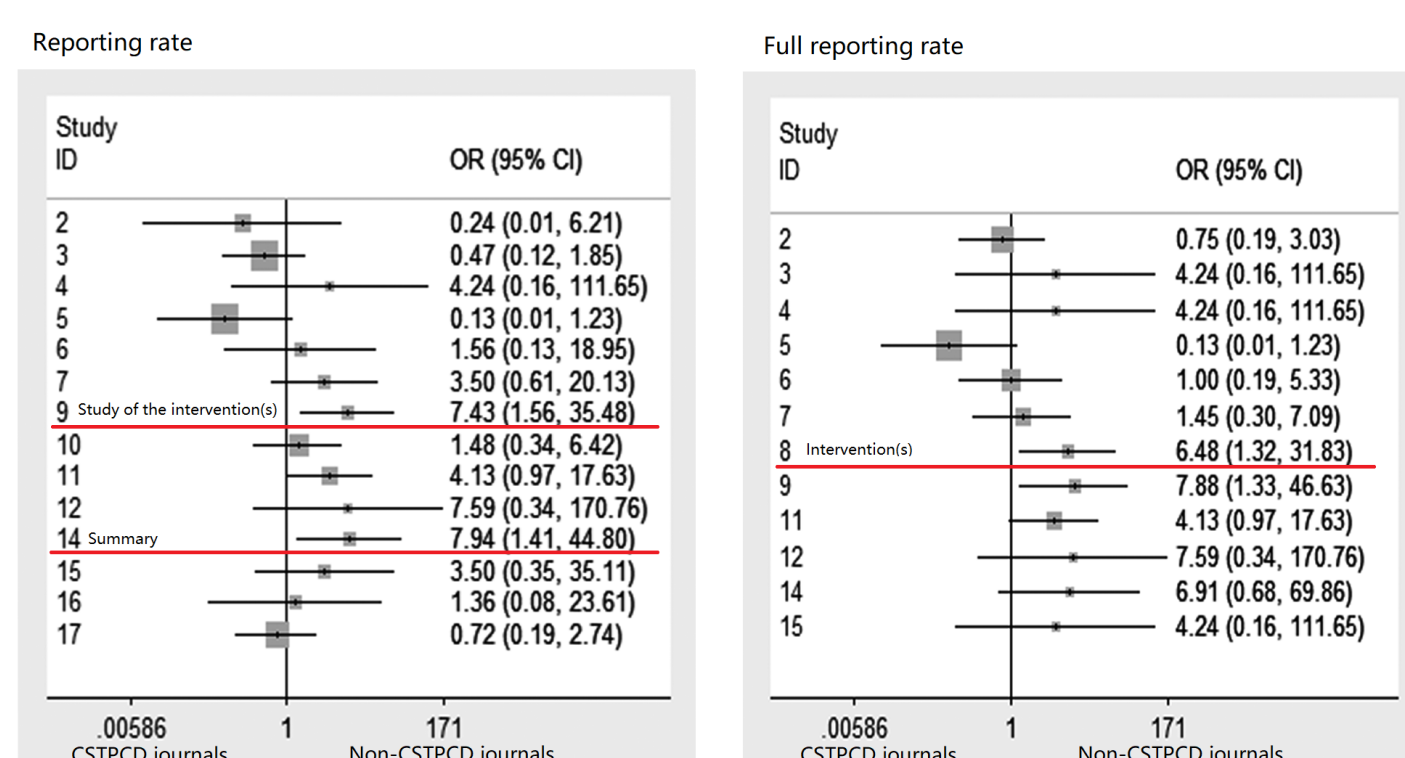


Figure 2 Comparison of the CQI studies published in CSTPCD journals and non-CSTPCD journals.

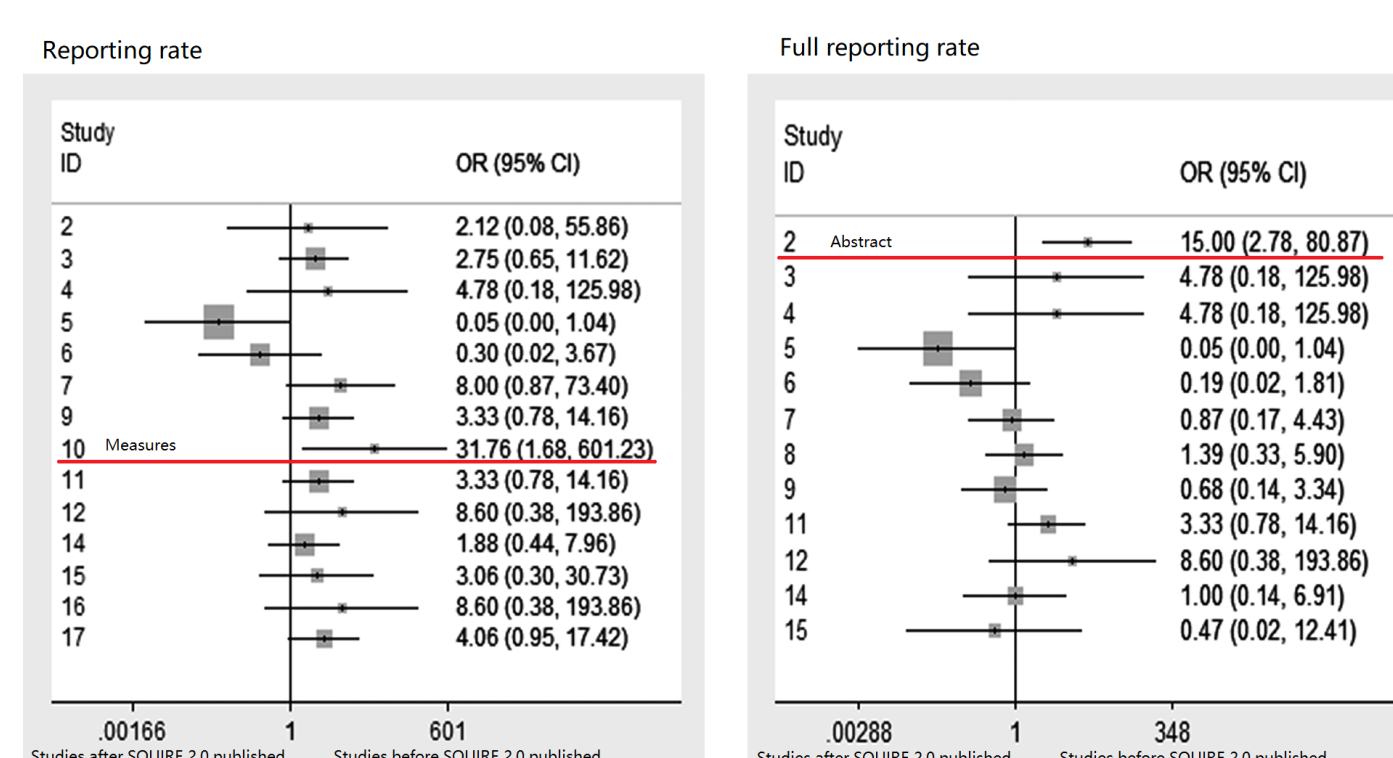


Figure 3 Comparison of the CQI studies before and after the publication of SQUIRE guidelines.

## Reporting quality of Continuous Quality Improvement studies in nursing field published in China

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