

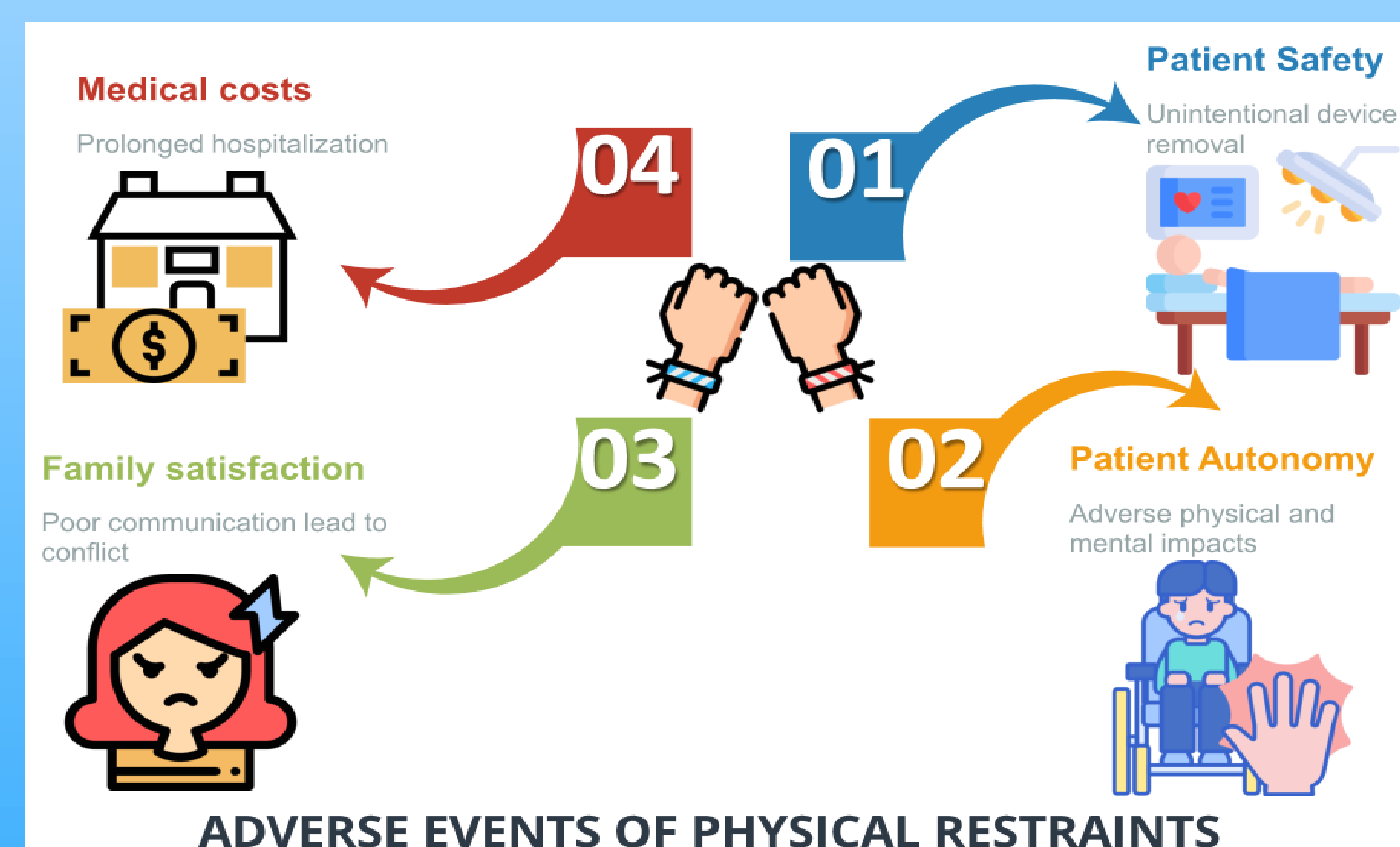
# Improving Nursing Quality of Use of Physical Restraints in ICU Through Shared Decision Making



Ya Ling Huang, Li Fen Chung  
Chi Mei Medical Center, Tainan, Taiwan

## Background

Physical restraints are commonly used in intensive care units (ICUs) as a measure of preventing patients from removing life support systems due to agitated behavior and reducing incidents of self-inflicted injury as well as risks towards the medical. However, due to staff job obligations, there is a lack of effective communication between the medical staff and patients and their families. In addition to this, employing physical restraints over a prolonged period imperceptibly causes adverse physical and mental impacts on the patient and it has become a considerably controversial issue in terms of nursing. As such, an empirical study was conducted through systematic literature review and analysis. In combination with use of innovative restraint alternatives to replace traditional physical restraints, the shared decision making (SDM) approach for patients and physicians to collaborate in the restraint care program was adopted in order to reduce the rate of continuous restraint care (Rose et al., 2016).

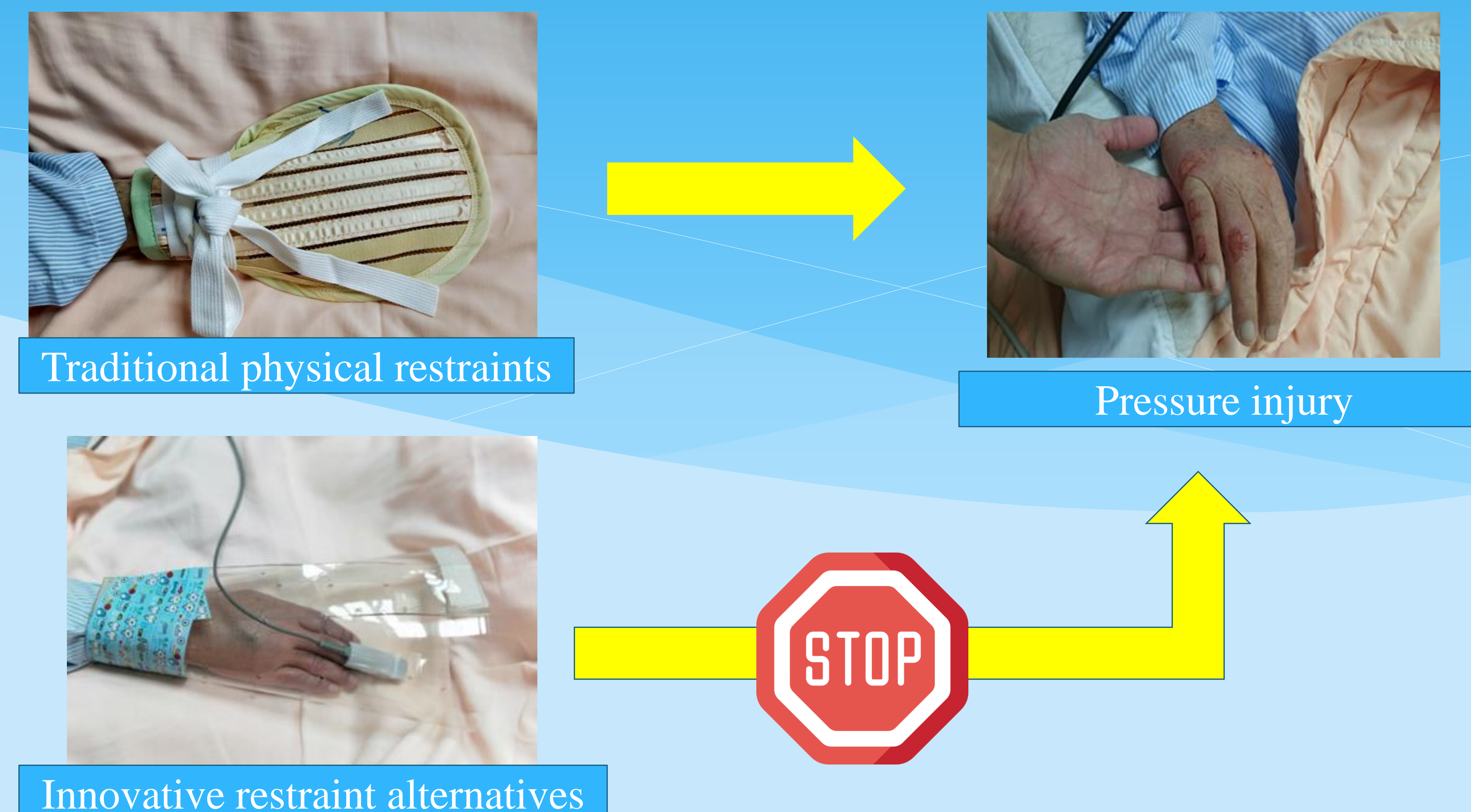


## Purpose

The purpose of this study is to reduce the rate of continuous restraint in the ICU and to improve patient safety and nursing quality. This is achieved by adopting the shared decision making approach for patients and the medical staff to collaborate in the restraint care program through mutual respect and effective communication in combination with use of innovative alternatives to replace traditional physical restraints.

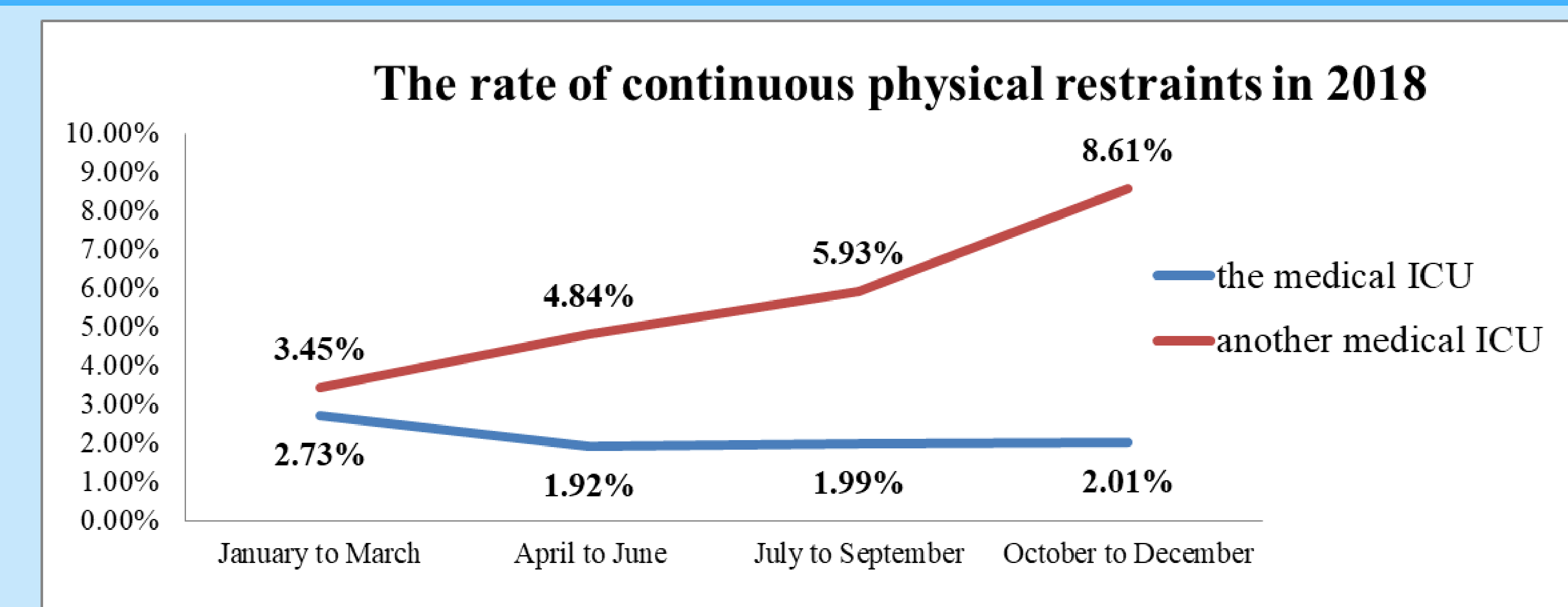
## Methods

This study focused on a total of 19 beds in a medical ICU in a medical center in southern Taiwan as its research subjects. An evidence-based patient decision aid tool was established for studying physical restraints, and a cross-sectional study was used to collect individual cases of using innovative restraint alternatives during the period from April 1, 2018 to December 31, 2018. On-the-job training was provided to improve effective communication between the nursing staff and patients, and to enhance patient recognition towards medical tube retentions and restraints. The study also monitored the rate of continuous physical restraint, the incidence rate of medical device-related injuries as well as the incidence rate of unplanned self-extubation.



## Results

The results of this study (n=615) showed that (1) patient and family towards employing restraints reached 100%; (2) the rate of continuous physical restraint was reduced from 2.73% to 2.01%; (3) the incidence rate of unplanned self-extubation was 0; (4) the number of incidents of medical device-related injuries was 0.



## Conclusion

In addition to improving the collaborative relationship between the medical staff and patients through effective physician-patient communication, establishing patient decision aid tools and providing on-the-job training for medical staff in combination with use of innovative restraint alternatives can also improve patient adherence and comfort levels, thereby reducing the rate of continuous physical restraint and risks of self-extubation. We advise medical institutions not to overlook the effects that restraint issues may have on nursing care quality.

## References

Rose, L., Dale, C., Smith, O. M., Burry, L., Enright, G., Fergusson, D., . . . Mehta, S. (2016). A mixed-methods systematic review protocol to examine the use of physical restraint with critically ill adults and strategies for minimizing their use. *Syst Rev*, 5(1), 194. doi: 10.1186/s13643-016-0372-8