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

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Purpose: 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 care. The purpose of this study is to reduce the rate of continuous restraint in the ICU and to improve patient safety and nursing quality.

Methods: An empirical study was conducted through systematic literature review and analysis. A cross-sectional study was used to collect individual cases of using innovative restraint alternatives in a total of 19 patients in an ICU in a medical center in southern Taiwan during the period from April 1, 2018 to September 30, 2018. 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. Data of the rate of continuous physical restraint, patient physical comfort levels, the incidence rate of unplanned self-extubation due to agitated behavior were collected.

Results: The results show that (1) through the effective shared decision making approach, patient and family satisfaction levels towards employing restraints reached 100%; (2) the rate of continuous physical restraint was reduced from 31.2% to 1.54%; (3) the incidence rate of unplanned self-extubation in the ICU during the period 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.

Title:

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

Keywords:

Intensive care unit, Physical Restraints and Shared Decision Making

References:

De Jonghe, B., Constantin, J. M., Chanques, G., Capdevila, X., Lefrant, J. Y., Outin, H., & Mantz, J. (2013). Physical restraint in mechanically ventilated ICU patients: a survey of French practice. *Intensive Care Med*, *39*(1), 31-37. doi: 10.1007/s00134-012-2715-9

Luk, E., Sneyers, B., Rose, L., Perreault, M. M., Williamson, D. R., Mehta, S., . . . Burry, L. (2014). Predictors of physical restraint use in Canadian intensive care units. *Crit Care*, *18*(2), R46. doi: 10.1186/cc13789

Riahi, S., Thomson, G., & Duxbury, J. (2016). An integrative review exploring decision-making factors influencing mental health nurses in the use of restraint. *J Psychiatr Ment Health Nurs*, *23*(2), 116-128. doi: 10.1111/jpm.12285

Rose, L., Burry, L., Mallick, R., Luk, E., Cook, D., Fergusson, D., . . . Mehta, S. (2016). Prevalence, risk factors, and outcomes associated with physical restraint use in mechanically ventilated adults. *J Crit Care*, *31*(1), 31-35. doi: 10.1016/j.jcrc.2015.09.011

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

Staggs, V. S., Olds, D. M., Cramer, E., & Shorr, R. I. (2017). Nursing Skill Mix, Nurse Staffing Level, and Physical Restraint Use in US Hospitals: a Longitudinal Study. *J Gen Intern Med*, *32*(1), 35-41. doi: 10.1007/s11606-016-3830-z

Abstract Summary:

Physical restraints are not only commonly used in ICU as a measure of preventing patient safety but also have been associated with adverse mental impacts on the patients. The purpose of this study is to reduce the rate of continuous restraint and to improve patient autonomy and nursing quality.

Content Outline:

Introduction

Physical restraints are commonly used in intensive care units 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 staff. 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 care. The purpose of this study is to reduce the rate of continuous restraint in the ICU and to improve patient safety and nursing quality.

Method

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 approach for patients and physicians to collaborate in the restraint care program was adopted in order to reduce the rate of continuous restraint. This study focused on a total of 19 patients in an 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 September 30, 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 show that (1) through the effective shared decision making approach, patient and family satisfaction levels towards employing restraints reached 100%; (2) the rate of continuous physical restraint was reduced from 31.2% to 1.54%; (3) the incidence rate of unplanned self-extubation in the ICU during the period was 0; (4) the number of incidents of medical device-related injuries was 0.

Conclusions

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.

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