

Development of Pain Management Guideline by Adaptation Process

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Abstract

The aim of this research was to develop on clinical practice guidelines for pain assessment and management in Korea. The guideline adaptation process was used and conducted into 24 steps according to the guideline adaptation manual developed by Korean Hospital Nurses Association. The Adapted pain assessment and management guideline was consisted 6 domains and 55 recommendations. The domains and number of recommendations in each domain were; assessment, 5; plan, 4; management, 28; evaluation, 5; education, 9; organization and policy, 4. Of the 55 recommendations, 27.3 % were graded as A, 29.1 % B, and 3.6% C, 40% D, respectively. In conclusion, this guideline is expected to contribute to improving nursing quality by offering it as a guide to evidence based practices for pain assessment and management.

Keywords: Pain management, Practice guideline, Evidence-based nursing

1. Introduction

With the development of medical technology and life extension, more awareness of patients' pain control and management has been raised. As a result, nurses' knowledge and attitude of pain have been changed. Korea Institute for Healthcare Association evaluated patients' satisfy with the medical staff's proper pain treatment action and pain management system and emphasized the necessity of effective and fast pain management [1]. Pain is unpleasant feeling and emotional experience relating to actual or potential tissue damage [2]. Many expert groups of pain, including World Health Organization, argue that the most effective pain management is the fundamental right of humans [3]. Therefore, it is necessary to assess and manage pain comprehensively in consideration of physical and psychological aspects such as pain assessment, pharmacological and non-pharmacological therapies, education, and patients' satisfaction.

Taking care of patients 24 hours at hospital, nurses observe pain and make an intervention, and evaluate pain. In a clinical field, they perform pain management on the basis of their personal experience, subjective judgment, and the knowledge they learned at school [4].

Article history:

Received (July 05, 2016), Review Result (September 11, 2016), Accepted (October 13, 2016)

However, they have poor knowledge of pain and are dependent on their own judgment, rather than the effectively proved pain control methods [5]. In this sense, it is necessary to establish the principles and criteria of pain management in order to raise clinical nurses' knowledge of pain observation, management, and evaluation and to make their clinical adaptation. To conduct accurate and efficient management of pain clinically, it is important to provide nursing practice based on scientific research.

These days, there has been active research on the evidence-based practice guidelines. Practice guidelines about intravenous injection therapy using adaptation process, decubitus nursing, enteral nutrition, urinary catheterization, and oral care have been developed [6]. Nevertheless, according to the thesis that prioritized the themes of clinical nursing practice guidelines for domestic nurses, pain management was ranked 4th. As such, it has a high priority, there is no much development of clinical practice guidelines [7]. As of now, the domestically developed guidelines of pain management are only the post-shingles neuralgia management guidelines of the Korean Society of Anesthesiologists and the cancerous pain management guidelines of Korean Society for Hospice and Palliative Care.

That is because of poor financial and administrative supports for the development of evidence-based guidelines and insufficient nurses with the professional knowledge and experience [8]. Accordingly, in order to overcome the limitations, there has been an adaptation process of modifying and supplementing the practice guidelines developed by other cultures in consideration of domestic situations [9].

Clinically, pain management has differently been developed and used by each medical institution depending on their characteristics and patients' diseases. In the circumstance, it is necessary to develop the systematic and standardized evidence-based clinical practice guidelines in order to perform pain management actively. Therefore, in order for nurses to make efficient pain management for patients in clinical practice, this study tried to develop the practice guidelines applicable to subjects in accordance with the practice guidelines adaptation methodology in the nursing area.

2. Research method

Based on the domestic and foreign evidence-based pain management guidelines, this methodological research focuses on effective pain assessment and management suitable to Korean situations in accordance with the systematic adaptation method. In this study, the adaptation process of the practice guidelines of pain assessment and management had been conducted from Jan. to Dec. 2015 on the basis of 24 steps in accordance with the standardized methodology for nursing practice guideline adaptation developed by Korean Hospital Nurses Association [8]. The research of pain nursing practice guideline adaptation is secondary data analysis research without personal information and is excluded from IRB deliberation.

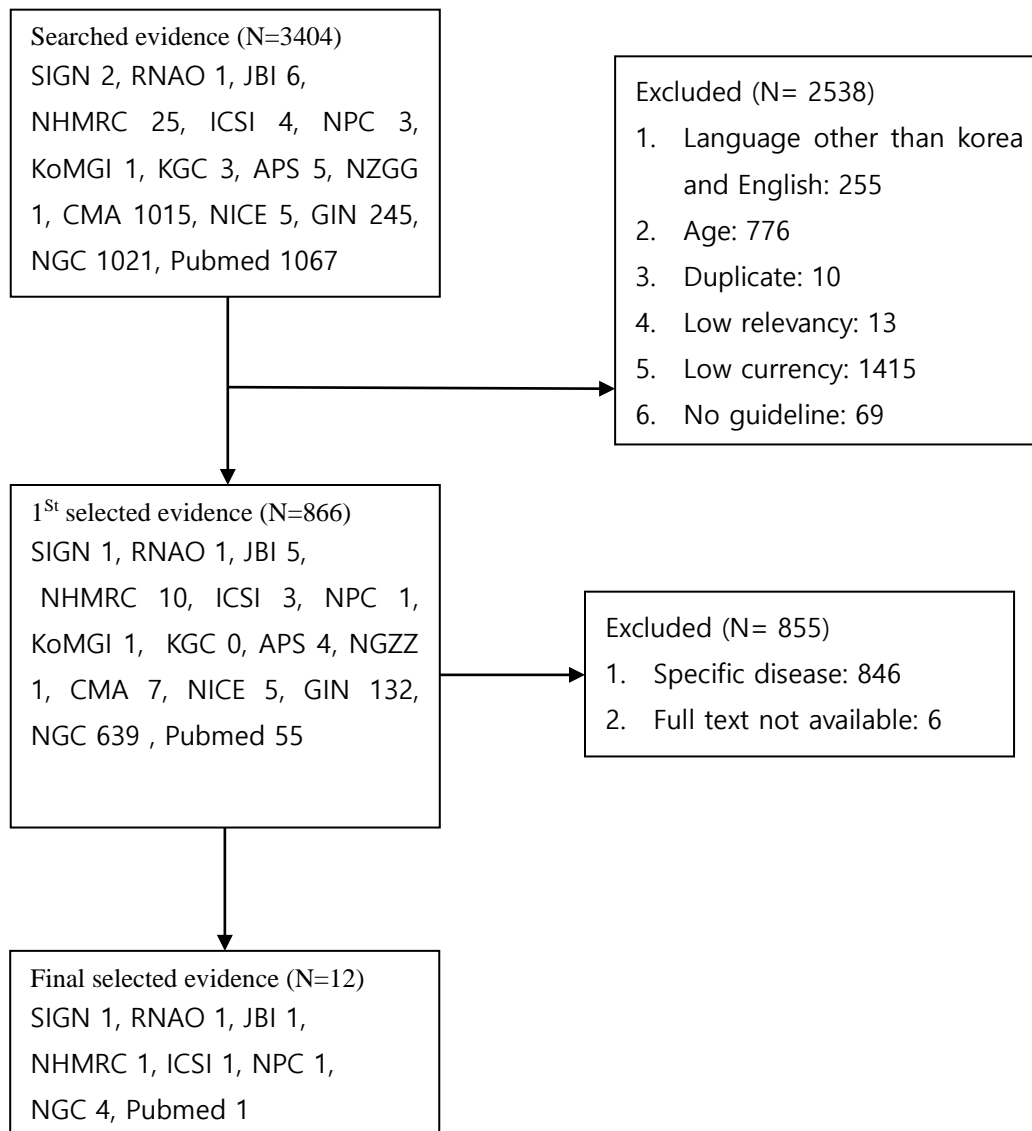


Figure 1. Process of guideline selection

3. Results

The adapted practice guideline about pain assessment and management which was developed in this study is comprised of 5 domains and 55 recommendations about assessment, plan, intervention, evaluation, education, organization, and policy. Regarding the number of recommendations by domain, pain assessment domain has 5 questions

(recommendations); pain planning domain 4 questions; pain intervention domain 28 questions about general matters, pharmacological intervention, non-pharmacological intervention, post OP care, burn patients, caution, and others; evaluation domain 5 questions; education domain 9 questions; and organization and policy domain 4 questions. For more details of 55 recommendations, in terms of strength of evidence, 15 recommendations have Strength I (27.3%); 17 recommendations Strength II (30.9%); 5 recommendations Strength e III (9.1%); and 18 recommendations Strength IV (32.7%). In terms of recommendation grade, 15 recommendations have Grade A (27.3%); 16 recommendations Grade B (29.1%); 2 recommendations Grade C (3.6%); and 22 recommendations Grade D (40%) (table 1).

Table 1. Recommendations of the pain assessment and management clinical practice guideline

Domain	Recommendation	Strength of Evidence				Recommended Grade			
	N(%)	I	II	III	IV	A	B	C	D
I. Assessment	5(9.1)	1	2	2		1	2		2
II. Plan	4(7.3)	1	1	1	1	1	1		2
III Management	28(50.9)								
1.General	2(3.63)	1			1	1			1
2.Pharmacological Intervention	12(21.82)	5	5	1	1	5	4	2	1
3.Non-pharmacological Intervention	4(7.3)	3	1			3	1		
4.Post OP care	4(7.3)	3	1			3	1		
5.Burn patients	5(9.1)	1			5	1			5
6.Caution Of patient and family	1(1.8)								
IV. Evaluation	5(9.1)		3		2		3		2
V. Education	9(16.3)		3		6		3		6
VI. Organization and Policy	4(7.3)		1	1	2		1		3
Total	55(100)	15	17	5	18	15	16	2	22

4. Discussion

Together with clinical practice experts, this study developed the practice guidelines of pain assessment and management with the use of adaptation method. Most diseases cause pain. In the process of treatment and examination, pain is one of the most frequently occurring symptoms. It is the most imminent sense. According to International Council of Nurses, one of the fundamental functions of nurses is pain palliation [10]. Patients with pain have difficulty eating and sleeping so that they feel fatigue and lethargy and have somasthenia. The

physical influence, psychological anxiety and depression, and chronic pain lead to a change in one's role and loss of self-esteem [11]. The research on pain intervention [10][11][12][13] revealed that clinical nurses less performed pain intervention method and were excessively concerned over the side-effect of pain relievers, reported that the most applied pain intervention methods were analgesic injection, cold and heat therapy, support, information offering and education, placebo use, and massage and the most applied PRN pain reliever was injected mostly in the instruction of medical doctors. Also, it was surveyed that nurses had less knowledge about pain assessment scale and analgesic injection, underestimated patient pain, under-treated pain, and failed to make a record properly. Pain enables patients to experience a lot of suffering and agony and negatively influences their recovery from diseases. For effective pain management, it is necessary to have proper knowledge and attitude of pain and pain management, assess patient's pain rightly, and apply proper injection and intervention [14]. Given that evidence-based standardized access should be made for pain management, it is very meaningful to develop integrated guidelines of pain assessment and intervention applicable to clinical practice. The domestic practice guidelines developed with adaptation method have been more specified into intravenous injection therapy using adaptation process, decubitus nursing, enteral nutrition, urinary catheterization, oral care, and foot care of diabetic patients and have been developed more. In the domestic medical circle, multiple treatment guidelines have been developed and used with adaptation method. Therefore, in order for the systematic management of pain considered to be the 5th vital sign, this study developed the guideline for pain assessment, plan, management, evaluation and education with the use of the domestic and foreign practice guidelines searched for. The patients in the research were those aged over 19, and the guideline application was limited to nurses.

5. Conclusion

This study developed 55 recommendations of the pain-nursing practice guideline in accordance with adaptation methodology after taking 24 steps. Based on the scientific evidence made through the investigation of literatures relating to pain, together with clinical experts, this study adapted the practice guideline for nursing application. The developed practice guideline is expected to be applied to five medical institutions participating in this research in order for their education of medical staff and policy establishment and thereby they will be able to perform systemized and standardized pain-nursing and to contribute to increasing the satisfaction of patients and their guardians. In the future, it will be necessary to expand the subjects to out-patients, young infants, and patients with special diseases and to develop their customized pain-nursing guidelines.

Acknowledgements

We would like to express our appreciation to Charge nurses; Kang, Yeon-Hee., Koo, Hyun-Ju., Ko, Eun-Ju., Shin, Young-Soon., Lee, Myo-Suk., and Unit managers; Yun, Hyang-Suk., Jang, Hyun-Hee in Hallym University Medical center for data collection and translation of English guideline.

References

- [1] K.S. Kim, J.A. Kim, M.S. Kim, Y.I. Kim, E.S. Kim, K.O. Park, "Development of Performance Measures on the Nursing Process for Prevention and Management of Pressure Ulcers, Falls and Pain. *Journal of Korean Clinical Nursing Research*, Vol. 15, No. 1, pp. 133, **(2009)**.
- [2] Pain terms: a list with definitions and notes on usage. Recommended by the IASP Subcommittee on Taxonomy. *Pain*, Vol. 6, No. 3, pp. 249, **(1979)**.
- [3] B. Strohbuecker, H. Mayer, G.C. Evers and R. Sabatowski, "Pain prevalence in hospitalized patients in a German university teaching hospital", *Journal of Pain Symptom Management*, Vol. 29, No. 5, pp. 498-506, **(2005)**.
- [4] N. Lavies, L. Hart, B. Rounsefell and W. Runciman, "Identification of patient, medical and nursing staff attitudes to postoperative opioid analgesia: stage 1 of a longitudinal study of postoperative analgesia", *Pain*, Vol. 48, No. 3, pp. 313-319, **(1992)**.
- [5] B. Chan and P. Leung, "Pain management", *Canadian Journal of Surgery*, Vol. 48, No. 2, pp. 98-99, **(2005)**.
- [6] P. Thomson, N.J. Angus and J. Scott, "Building a framework for getting evidence into critical care education and practice", *Intensive and Critical Care Nursing*, Vol. 16, No. 3, pp. 164-174, **(2000)**.
- [7] B.F. Angel, M. Duffey and M. Belyea, "An evidence-based project for evaluating strategies to improve knowledge acquisition and critical-thinking performance in nursing students", *Journal of Nursing Education*, Vol. 39, No. 5, pp. 219-228, **(2000)**.
- [8] Gu Mo, M.S. Cho, Y.A. Cho, J.S. Jeong, I.S. Jeong, J.S. Park, "Topics for evidence-based clinical nursing practice guidelines in Korea", *Journal of Korean Clinical Nursing Research*, Vol. 17, No. 3, pp. 307-318, **(2011)**.
- [9] Gu Mo, Cho MS, Cho YA, Jeong JS, Eun Y, Jeong JS, et al. "A prioritizing for the evidence-based nursing practice guidelines development", *Journal of Korean Clinical Nursing Research*, Vol. 18, No. 1, pp. 39-51, **(2012)**.
- [10] M.J. Kim, "Implementation of Pain Intervention among Clinical Nurses, *Journal of Korean Academy of Adult nursing*, Vol. 9, No. 2, pp. 209-224, **(1997)**.
- [11] J. Hyun, K.S. Park, "Clinical Nurse's knowledge and Attitudes on Pain Management", *Journal of Korean Academy of Adult nursing*, Vol. 12, No. 3, **(2000)**.
- [12] S.R. Suh, B.D. Suh and H.J. Lee, "Nurses' Knowledge and attitude toward assessment and intervention of patients with pain", *Journal of Korean Academy of Nursing*, Vol. 7, No. 1, pp. 61-70, **(1995)**.
- [13] H.J. Park, "A study of oncology nurse's Knowledge, attitudes and intervention method regarding cancer pain management", Chung-Ang University, Seoul, Korea, **(2012)**.
- [14] K.H. Jung, "Nurses' Knowledge of Pain and Attitude of Pain Management", Kyungpook National University, Daegu, Korea, **(2007)**.
- [15] Korean Hospital Nurses Association, "Adaptation of evidence-based clinical practice guideline and standardization of adaptation process in nursing clinical practice guideline-based on the intravenous infusion therapy", Seoul: Korean Hospital Nurses Association, **(2012)**.