Development of the Change Implementation Strategies Model Regarding Evidence-Based Chronic Wound Pain Management

Boonyapat Shatpattananunt, Wongchan Petpichetchian, Luppana Kitrungrote

Abstract: Chronic wound pain has not been well managed in many countries around the world. Development of a change implementation strategies model within healthcare contexts is worth constructing in order to reduce suffering and to improve the quality of the life of patients with varying health problems, including chronic wound pain. This study's purpose was to develop an evidence-based change implementation strategies model for nursing Thai patients with chronic wound pain. A mutual collaborative action research approach was employed with 20 nurses at a tertiary hospital in a northern region of Thailand who were involved in the change process guided by the Lewin's Planned Change Model. This is a 3-step model of change consisting of unfreezing, moving, and refreezing. The Wound Pain Management Model involving chronic wound pain assessment and management, also supplied important content during the change process. The research process included two phases, firstly preparation, which explored the field and developed a tentative model, and secondly, the use of mutual collaborative action research which resulted in the refinement of the model to become the CLEVER Model.

Twelve strategies evolved during the study, and were executed in order for unfreezing, moving, and refreezing towards the change implementation of evidence-based chronic wound pain management. The acronym "CLEVER" represents the following factors that contributed to successful implementation of the Model: C-Context and Culture, L-Leader, E-Effective driving change, V-Voice, E-Empowerment, and R-Re-audit. The CLEVER Model was found to be beneficial in practice, and can be used to guide changing other evidence-based practices in nursing. However, it requires testing with other populations in Thailand.

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Introduction

This paper presents part of the findings from a large research project concerned with the development and evaluation of a change implementation strategy model for evidence-based chronic wound pain management (CWPM). Here we focus on the development of our model, eventually named the

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CLEVER Model, and reflect on the processes involved in implementing strategies during the study.

Although a number of nursing studies were found from the last ten years in Thailand, no Thai studies on pain management have addressed CWPM. Literature reviewed showed that popular study topics on pain management are acute pain management in various areas such as postoperative pain, traumatic wound pain, and chronic cancer pain management. The most recent study in chronic wound pain (CWP) has been on the prevention and treatment of pressure ulcers.[1] Concerted efforts are required to ensure that CWPM is based on up to date evidence. Therefore, the adoption of the Wound Pain Management Model (WPMM)[2] offers a means of developing nursing practice for CWPM in Thailand to meet international standards of care.

It is generally accepted that organizational culture plays an important role in evidence-based practice (EBP) implementation. Change is more likely to occur and be sustained if a new EBP paradigm fits within the organizational culture, because culture is a powerful force in people's daily lives.[3] Several models and guidelines demonstrate how to effectively implement EBP in the nursing field such as the Stetler, IOWA, and ACE Star models.[4] However, these models tend to focus on the procedure of EBP implementation and implicitly address issues related to organizational culture. This may make it difficult to apply in contexts other than in the western where these models were initially developed. For this reason we considered that a change implementation strategy model that focuses on issues related to organizational culture using a Thai healthcare context to implement CWPM was important to explore and develop.

Theoretical Framework

Lewin's planned change model[5] was used as a framework focusing on organizational culture to guide this study's methodologies so that we could develop a model to effectively change nurses' practices regarding CWPM. The WPMM[2] supplied the contents of evidence-based CWPM. The WPMM consists of four dimensions of wound care: wound assessment, wound management; wound pain assessment; and wound pain management. This paper focuses focused on the last two dimensions of the study.

Lewin's model comprises four elements: Force Field Theory (FFT), Group Dynamics (GD), Action Research (AR), and the 3-step model of change (3S model).[5] Lewin conceived these elements as a unified system which can be efficiently applied to facilitate behavioral changes in groups or organizations.[5-6] FFT has been used to analyze organizational culture and describes a range of driving and resisting forces influencing and setting the direction of organizational change.[3] Organizational culture affects group behavior,[3] and changing nurses' CWPM practices requires an understanding of the dynamics of a particular nursing group, so that change effects the group work, not just that of an individual nurse. AR is viewed as a two-pronged process that allows groups to address their own problems and identify appropriate solutions.[6] Within such an environment, the 3-step model of change (unfreezing-moving-refreezing) has been used to describe the process and direction of effective change implementation.[6]

Lewin's model was considered suitable to allow us to visualize clearly the whole study processes; it can be utilized on small scale to highlight incremental changes and it seemed practical to use to achieve the aim of this study. In addition, the researchers believed that EBP implementation was very important to change some operations for developing personnel and improving organizational management.

Review of Literature

Chronic Wound Pain Management

Chronic wounds (CW) can cause severe pain in patients. In order to manage CWP efficiently, the cause of pain must be identified, and then local, regional or systemic patient factors should be implemented to control it.[7] Nurses play a critical role in controlling patients' CWP. Pain management emphasizes non-pharmacologic interventions for CWPM since nurses are allowed to practice these interventions freely. The classic non-pharmacologic interventions continue to

be acknowledged for their ability to minimize CWP such as the physical or cognitive aspects of a painful condition.[7] In addition, some studies[8-9] continuously place attention on the development of dressing and cleansing solutions used for CWPM. For example, a non-adherent dressing is preferable.[7-8] Besides, the pharmacologic interventions for CWPM, this kind of intervention are typically applied first when there is a need to relieve wound pain.[7] Application of the World Health Organization (WHO)'s 3-step analgesic ladder for pain management has also been found to be efficient in mitigating wound pain.[7] Therefore, nurses should integrate non-pharmacologic interventions with pharmacologic interventions to ensure the efficiency of pain management.[7]

Evidence-Based Practice and its Implementation

EBP is defined as a way for healthcare providers to integrate the best available evidence with clinical expertise and the patient's preferences and values in decision-making in individual and group patient care.[10] EBP implementation refers to the efforts designed via effective uptake of evidence into clinical practice with the goal of obtaining the best practice outcomes and related products.[11]

Multiple strategies have been used to improve EBP implementation.[12] For example, one study indicated that adaption of multiple strategies was possible for sustained practice, change, and improved implementation of EBPs in the intensive care unit of a tertiary hospital in Brisbane, Australia.[13] Educational strategies have frequently been used to improve nurses' knowledge[12] and change nurses' actions,[14] but education sessions alone may not be sufficient to change nursing practice. A literature review indicated that a combination of education and strategies such as reminder methods, auditing and feedback may be more effective than education sessions alone.[12] This study, therefore, focused on nurses applying multiple strategies for successful EBP implementation for CWPM.

Study Aim

To develop a model of change implementation for chronic wound pain management in Thailand.

Methods

Design: This qualitative study used a mutual collaborative action research (MCAR) design, since it allowed researchers and participants to collaboratively identify problems and seek solutions in practice.

Setting and Sample: This study was conducted during July 2013-July 2014 at a tertiary hospital in northern Thailand. A target ward at this hospital was purposively selected by conducted an informal survey to find out that it had more cases of CWP than others and >80% of nurses indicated their preliminary wish to be actively involved in the study. The final sample included all 20 ward nurses (100% of nurses) who were experienced in care of patients with CWP.

Ethical consideration: This study was approved by the research ethics committees of the target hospital and the Faculty of Nursing, Prince of Songkla University. Prior to data collection, all participants gave informed consent and their anonymity and rights were assured throughout the study.

Data Collection and Analysis:

Instruments: Data were collected using: an individual interview form, an interview guide for focus group discussions (FGDs), and field notes. The content validity of the individual interview form and the interview guide for FGDs were checked by three experts who considered the accuracy and comprehensiveness of the content. This study was composed of two phases: Phase I-Preparation and Phase II-MCAR.

Phase I-Preparation Phase was used to explore the field. Four methods of data collection were: (1) participant observation of a variety of nursing activities related to CWPM by the principal researcher (PR); (2) individual interviews with four nurses to collect data on the nurses' experience with CWPM and EBP implementation; (3) FGD with ten nurses to explore the situation of CWPM, EBP implementation and factors affecting the EBP implementation in the target setting; and (4) document analysis of policy documents, patient records, and nursing records. Qualitative data were analyzed using a content analysis method.[15] From the data warehouse derived from the context analysis, the

literature review, and theoretical framework, a tentative model of change implementation for CWPM was developed (Figure 1).

Phase II-MCAR: Here the tentative model was refined to become the CLEVER model. The spiral of AR cycle follows a process of fact finding[5], planning, acting and observing, and reflecting.[16] The first author acted as a facilitator and a moderator, and had worked collaboratively with participants to identify problems and critical reflect on the situation prior to planning the next cycle as above. Data collection methods were participant observation and non-structured interviews. Activities were undertaken in a series of 3 workshops (unfreezing, moving, and refreezing) with 20 participants (see **Figure 1**).

Step 3 - Refreezing

Objective: To make the new practice (WPMM) permanent.

Process and Implementation Strategies:

1. Reminder strategy used by instructing the participants that some nursing care was due for patients with chronic wounds (e.g. color sticker on patient chart).
2. Audit and feedback was used to assess WPMM practicality.
3. Monitoring was used to try to ensure participants did not return to old practices.

Step 2 - Moving

Objectives: To help nurses move forward and implement the WPMM into practice

Process and Implementation Strategies:

1. A change champion acted as a convincing practice leader who contacted and worked with various people (staff, professionals, senior managers) and groups (committees, interdisciplinary teams) to facilitate WPMM implementation.
2. Small group meetings to enable programs for educating participants.
3. Audit and feedback used to provide inspiration and stimulus to participants.
4. Mass media strategy was performed to inform the participants about WPMM.

Step 1 - Unfreezing

Critical Issues: Nurses appeared unaware of the importance of chronic wound pain management and did not realize the value of implementing EBP in nursing practice.

Objectives:

1. Raise awareness among nurses about chronic wound pain management issues;
2. Motivate the group to look for new solutions; and
3. Minimize resistance to change throughout the workshop.

Process and Implementation Strategies:

1. Small group meetings used to inform about critical issues and convince members in the organization that there was real crisis.
2. Education provided as opportunities for the participants to learn about EBP.
3. Audit and feedback strategies used to provide inspiration and stimulus for the participants.

Field Analysis and Assess Change Champion

Figure 1 A Tentative Model of Change Implementation for Chronic Wound Pain Management

Results

The CLEVER Model developed in this study comprises six key factors facilitating successful EBP implementation. The acronym "CLEVER" stands for Context and Culture, Leader, Effective driving change, Voice, Empowerment, and Re-audit (**Figure 2**). Results are presented in two parts below: the development of the CLEVER model, and the implementation strategies involved, and related factors.

Context and Culture (C): Findings revealed that analysis of the context and culture of the field is the first activity that should be conducted before initiating EBP implementation. The dominant characteristics of the hospital context and culture that affected successful EBP implementation included a friendly work environment, credible teamwork, good leadership, regular training, employee involvement, and the balance of authority based on democratic administration.

Leader (L): Selecting a change sponsor and a change champion are essential enabling strategies for EBP implementation. The sponsor should authorize the approval of solutions fora change, to allow it to happen according to the principles of EBP implementation,[17] while the champion is a person with an important role in supporting work to bring about changes.[18] In this study, it was appropriate and advantageous to have two change champions in order to cope with the "shift work" of the nurses. We found that one champion should be a nurse who works during regular office hours, while the other needed to work on other shifts and thus could share champion responsibilities and tasks and to coach the participants more thoroughly.

Effectively driving change (E). This factor was derived from the 3-step model of change[5] involving unfreezing (increasing driving forces and reducing resistance force to change), moving (taking action for change), and refreezing (stabilizing the change at a new equilibrium). At each step of change, different strategies can be applied according to the corresponding objectives and critical issues. Results revealed that 12 implementation strategies, major and minor, were effective in driving this change. The six major implementation strategies used throughout the three steps comprised change sponsor, change champion, small or large group meetings, audit and feedback, and empowerment. The six minor implementation strategies were education sessions and communication, an external expert, dissemination, reminders, monitoring, and mass media. Details of each strategy are presented below:

Voice (V): This factor refers to the reliance on the majority of voices and the participatory process. It reflects valuable contributions of group dynamics, democracy, and active involvement of the participants.

Empowerment (E) played an important role in all steps of the EBP implementation (from unfreezing to refreezing). In the Unfreezing Step use of an outside expert empowered the participants through verbal persuasion. This helped to increase the participants' self-confidence in the belief of the power of teamwork and the ability to bring success to the EBP implementation. In the Moving Step, the change champions and the researcher empowered the participants in various aspects. For example, rewards were granted to the participants who could record patients' charts that conformed correctly to the WPMM. In the Refreezing Step, the change champions facilitated and were responsible for monitoring the practices of the participants. Meanwhile, the participants received positive feedback and were encouraged in continue this EBP.

Re-audit (R): It was found very useful to regularly re-audit the EBP implementation of the participants and their performance. Re-audit is necessary for sustaining improvement.[19] A responsible person should work full-time on these tasks to ensure that the outcomes can be monitored and fully assessed. In addition, the results from the re-audit should be reported to the administrator and practitioners to enable them to review, improve and correct any errors or malpractices.

Implementation Strategies of the CLEVER Model

In response to the factors identified in the CLEVER model, 12 implementation strategies were found to be congruent with "E", *Effective driving change*. **Figure 2** delineates use of these strategies at each step along with the activities employed. Details of major strategies, minor strategies, and activities prominently employed at each step are described below:

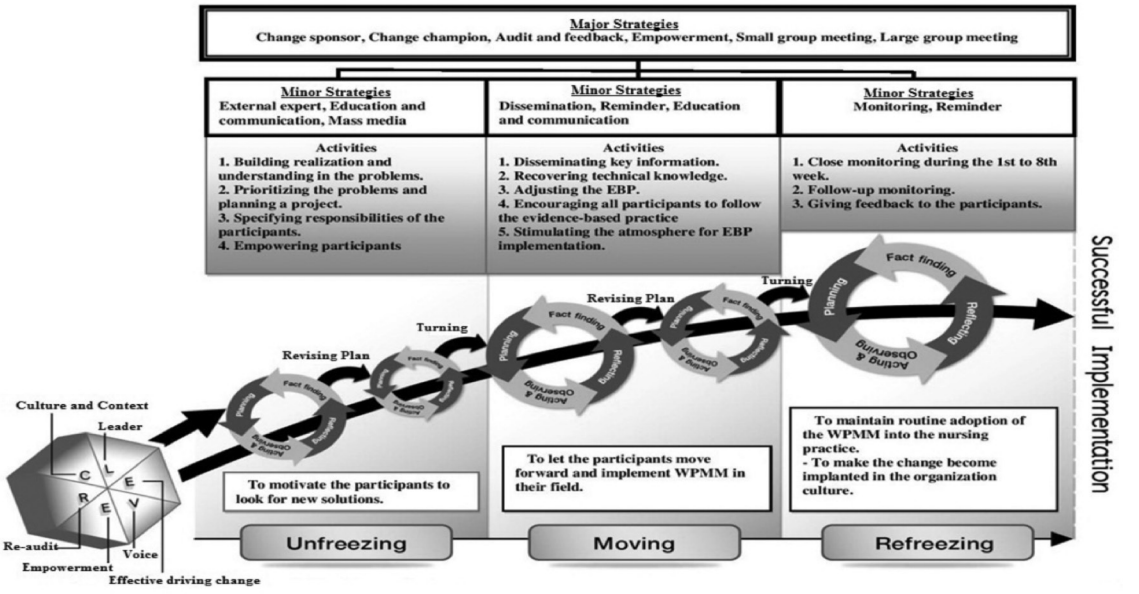

Figure 2. The CLEVER Model

WPMM = Wound Pain Management Model, EBP = Evidence-Based Practice

Unfreezing: This step is the most difficult and important for the change process[3] to occur successfully. The step comprised the 6 major strategies mentioned earlier, and 3 minor strategies: external expert, education and communication, and mass media. These were all used throughout 4 activities of building realization and understanding of the problems, prioritizing the problems and planning a project, specifying responsibilities of the participants, and empowering the participants. These strategies are described below:

Major implementation strategies

- Having a change sponsor was an important strategy for beginning steps in the change process. Such a person was the key link between the researcher and the participants, and also between the researcher and the hospital's executive management. Analysis of data indicated that the important characteristics of the change sponsor were having strong leadership skills such as the ability to make good decisions, persuade others, and solving problems efficiently, and with enthusiasm. *I can support all tasks for the change ...If you need any help, please let me know.* (Change Sponsor)

- *Change Champion*: This strategy played a less important role in this step. At the initial Unfreezing Step, no one volunteered to take this role because the participants still had no confidence: *I have no confidence in taking on the role of change champion.* (Advanced Practice Nurse)

- *Audit and feedback*: The researcher used this strategy in the education session and the small group meeting strategies to inform the participants about the outcomes of the previous CWPM. The findings showed that the audit and feedback strategy allowed the participants to learn the findings of the data of the previous practice concerning CWPM and to

take part in analyzing and compare those practices with international professional standards. Moreover, audit and feedback strategy was effective in stimulating the participants to improve their nursing care, for example: *There are several faults that I should improve ...in comparing our practices to international standards, I realize that our ward should quickly improve our CWPM.* (Participant 4)

- *Empowerment:* The external expert used empowerment strategies to help participants increase their self-realization. Focusing on the participants' strengths (such as good teamwork) was a powerful way to build their confidence and change behaviors. As it turned out, two participants volunteered to be champions, and they and other participants felt positive toward EBP implementation in CWPM. For example: *After I listened to the external expert...I am very pleased to do the work.* (Change Champion)

- *Small group meetings* (4-5 participants/group) were informal and suitable to use in the first step of the Unfreezing process because all the participants needed to be informed of the correct and complete data, be allowed to express their opinions freely and straightforwardly, reflect on their opinions, and exchange information quickly. However, it was found that small group meetings did not need to take place frequently because they were considered to be time-wasting and communication became more disrupted.

- *Large group meetings*: This strategy allowed the participants and the researcher to save a lot time, but involved the risk of the participants being absent from some meetings. This strategy was suitable for activities requiring brainstorming, sharing agreements, and giving clear solutions about the problems. However, some participants did not have an equal chance to participate and thus share their ideas, or clarify certain points.

Minor implementation strategies

- *External expert*: This was the most important strategy for the Unfreezing Step. An external expert is a person who influences EBP implementation and is accepted by the participants.[20] The findings showed that the external expert's qualifications (for example, education level, experience, expertise, ability and job position) affected the participants' mindset (they trusted the study and this helped to minimize the barriers to change). In addition, the speech characteristics of the external expert were also considered very important by the participants, for example: *I am now confident in this project. I don't know why, but I believe in every word spoken by the external expert.* (Participant 16)

- *Education sessions and communication* were the initial strategies used to unfreeze the participants' traditional attitudes, raise awareness, promote correct understanding, reduce their resistant forces, and enhance up-to-date knowledge about CWPM. We found that education sessions and the mass media strategy needed to be used together to attract the participants' interest in the information presented. The most popular way that the participants wanted to obtain knowledge was through research and articles published in health journals, for example: *I would be bored if I had to listen to old knowledge I can find in ordinary textbooks. I want to listen to up-to-date knowledge, especially evidence from research which would make it very reliable.* (Participant 2)

- *Mass media:* Multimedia presentations (text, still images, animated images, videos, and audio was used to transfer knowledge about CWPM, and the LINE application. The result was that these could effectively increase participants' levels of alertness and interest, for example: *When I listen to a lecture on technical knowledge, I usually feel sleepy...but the form of video clips showing your interview with patients that I watched today was very interesting and not boring at all.* (Participant 10)

In addition, the LINE application played an important role in informing participants about plans and making appointments to meet with the researcher, and greatly facilitated communication[21] between the participants and the researcher. The LINE application

also allowed them to contact one another at anytime[21] and enabled them to send messages to communicate with their friends in various forms (such as texts, pictures, and stickers). Communication via LINE was informative and also helped group members to gain mutual understanding about the same issue.

Moving is the second step in the CLEVER model. Six major implementation strategies (especially the champions and empowerment strategies), and 3 minor implementation strategies (dissemination, reminder strategies, and education and communication) were used throughout 5 activities: disseminating key information, recovering technical knowledge on CWPM, adjusting the EBP (the WPMM) to correspond to the culture of the ward, encouraging all participants to follow the EBP (the WPMM), and stimulating the atmosphere for EBP implementation.

Major implementation strategies

- The two champions played an important role in the Moving Step. Their roles required a high degree of devotion and responsibility to work as a leader, project consultant, and coordinator. For example, they had to summarize the main issues after each meeting and distribute the main points via LINE to all participants. One champion provided the reason for this: *I have to know the details of all meetings because all information helps me know changes in the situation continuously.* The champions also needed to have stable integrity and clear vision regarding EBP implementation. They clearly expressed their understanding and acceptance of impending changes in CWPM. They also supported the participants in understanding and cooperating with ongoing changes. The champions needed good communication skills and the ability to work well with others. For example, they were able to communicate with the participants clearly and straightforwardly. They knew the right time to make comments to the participants. Lastly the champions acted as good team players, listening to the study participants, encouraging them to contribute, and also respected the opinions of the team.

- Empowerment strategy. This strategy was used to encourage the participants to have confidence[22] so that they were capable of successfully leading changes in CWPM in accordance with the WPMM. To empower is to encourage the participants to have decision power and freedom to adjust and improve their practice regarding CWP. The result was that the participants recognized their own ability and gained confidence because they were a part of the organizational change. This evident by the following excerpt: *I am happy to see that my opinion was accepted and know that it had some impact on the adjustment of the guideline* (Participant 1)

Minor implementation strategies

- Dissemination strategy: This was applied to attract and persuade the participants by various techniques such as sending messages via the LINE mobile phone application, posting announcements at several locations, and spreading information via word of mouth.Analysis revealed that this was done based on choosing appropriate communication formats, balancing one format over another, and frequently disseminating important information (the same information should be frequently sent, announced, or displayed).

- Reminder strategy: Several reminding techniques were conducted such as the use of symbols and word-of-mouth communication. For example, a flow chart with details of the WPMM was posted at the nurses' station, a pink sticker was attached on the patients' charts and the Kardex of patients with CWP. In addition, every morning shift during the first week of Moving Step, the change sponsor reminded and emphasized to all participants that they were required to follow the WPMM. The results showed that this strategy helped the participants remember details, it was not complicated, and was cost-effective. One participant said: *By attaching the WPMM Flow Chart at the nurses' station, we can read it very easily. It is very helpful in reminding us.* However, it was found that responsible persons should have regularly checked the completeness and timeliness of reminder signs.

– Education and communication strategies were used throughout during the recovering technical knowledge on CWPM activity. These were informal activities because all participants had received comprehensive knowledge regarding CWPM during the Unfreezing Step.

Refreezing: This is the last step in the CLEVER Model. Six major implementation strategies and 2 minor implementation strategies (monitoring and reminder) used throughout 3 activities included: close monitoring during weeks 1–8, follow-up monitoring during weeks 9–12, and by giving feedback to the participants. However, only one minor implementation strategy, monitoring was used during the 11-weeks the Refreezing Step. Results revealed that during the initial EBP implementation intensive monitoring should be conducted at regular intervals (for example, by conducting weekly monitoring on every patient with CWP).Whenever a mistake was found, immediate feedback was given to those involved to update data and learn from the situation. In addition, the person who was doing the monitoring needed to realize that efficient communication with the participants had a positive impact on getting them to follow the WPMM and reduce resistance to change. However, the limitation to the monitoring strategy, and thus this study, was that the time spent in the application of this was too short.

Discussion

The CLEVER Model

The key finding of this study was that it offered profound insight into the organizational conditions that make change in an hospital ward effective. Using a case of implementation of evidence-based CWPM as an exemplar, six influencing factors were identified and used to represent this change implementation strategies model, that is, the CLEVER Model. Details of each factor are discussed.

Context and Culture (C): It is crucial that organizational and leadership support is present for successful and effective EBP implementation[23] and this was the case in this study. In contrast, certain other characteristics that are potential barriers to EBP implementation for CWPM include the limited time of the nurses, overwhelming workloads, resource shortages and deficiency in personal skills in assessing and implementing EBP.[12]

Leader (L): The change sponsor or senior executive played an important role in providing support in all aspects throughout the change and implementation phases.[24] Meanwhile, the change champions had important roles in the initiation of change and facilitated a variety of activities while managing the change process.[18] It is evident that these roles have different functions. For example, the change sponsor was unable to take the day-to-day decisions and to give support to the project relating to resource allocation. The change champion is a leader who influences the decision-making and managing the EBP implementation. However, both existed for a common goal in this study, the successful EBP implementation of CWPM.

Effective driving change (E): In the Unfreezing Step driving changed allowed the participants to receive the correct information, feel relieved, adjust attitudes, and have determination in bringing about changes in CWPM. To achieve a sustainable and long-term change, the process needed to start from the participants' inner lives (thoughts, feelings, and beliefs) before continuing to their behavior, because people usually act according to their beliefs and understanding.[25] During the Moving Step, most participants were unfamiliar with the new behaviors expected of them, and some felt like they were under pressure. The phenomenon happening to the participants in this situation is technically called the 'implementation dip,' commonly found when a person has to change their acquainted behavior to a new and unfamiliar behavior.[26] The Refreezing Step had three strategies, namely monitoring, reminders, and the audit and feedback solve the problems in the step. These strategies were recognized for their ability to make a new behavior permanent for a group.[5]

Voice (V): Allowing the participants to share opinions and take part in decision-making processes throughout all of the EBP implementation for CWPM resulted in several positive outcomes. These are consistent with Lewin's notion that the expansion and assimilation of democracy into all dimensions of society could help prevent and solve social conflicts.[6] Giving importance to the voice of the participants for solving problems in CWPM concurs with the AR approach, in that is a way of learning and discussing problems by using a group perspective trying to change and solve them.[12]

Empowerment (E): This component was organized with the aim of reinforcing all changes and participants had a chance to express their opinions. This was important since psychological empowerment has an effect on the nurses' perception of higher quality care delivery, including extensive training, information sharing, and decentralized decision-making.[22]

Re-audit (R): Knowledge in nursing science just keeps growing. When new knowledge has been produced, practices need to be adjusted so these are always in agreement with the new knowledge.[27] We recommend that more audits should be conducted in nursing when there new knowledge is to be incorporated into practice. Practice guidelines should be used and these form a benchmark to measure implementation.

Implementation Strategies of the CLEVER Model

Our findings regarding the change sponsor are consistent with a previous Swedish study that reported supportive leadership to a high extent with three EBP activities, including searching for other knowledge sources, implementing EBP and evaluating the practice.[28]

We found that change champions play an important role in successful EBP implementation[18] similar to other studies where change champions were found to be a key facilitating factor responsible for managing change and implementing EBP activities.[29] The personal qualities of the change champions in the present study are similar to those of another study that revealed their essential qualities of strong devotion, high responsibility, high integrity, clear vision, good communication skills, and being a good team player.[29]

Regarding the audit and feedback strategy, the results of this study are consistent with a previous systemic review which indicated that using audit and feedback alone or in combination with educational meetings and materials was found to potentially result in moderate improvements in the implementation of guidelines.[30]

Empowerment has been found to be essential for the nurses to make changes with skills such as negotiating and consensus building. Once they have been sufficiently empowered, the nurses will be eager, highly motivated and well-informed EBP implementation as they deliver patient care with greater effectiveness. This is supported by the findings of one that found a moderate to high relationship between EBP utilization and perceived workplace empowerment (r = .648, p< .001).[31]

Small group meetings were found suitable to use during for the shift work culture of the nurses in this study, since they worked different shifts and it was difficult to schedule a large group meeting. One article stated that using the small group meeting strategy to discuss and focus on the research and interview the members on the journey of implementing evidence-based practices was appropriate for nursing because of the nature of shift work.[32]

Large group meetings were found to be suitable for activities requiring brainstorming. This finding was consistent with another study using such meetings for brainstorming and interviewing participants with the objective of identifying tailored strategies suitable for EBP implementation in healthcare for patients with chronic diseases in five countries.[33]

An external expert was found to be the most influential strategy for unfreezing participants' resistance. However, this strategy may only be appropriate for some organizational cultures. In Enz's study using

hotel employees as the sample, service quality–based innovations were negatively correlated with the use of the external expert.[34] Some other factors may contribute to this difference, such as the relationship between the expert and the participants, and the expert's personality or characteristics. Further investigation of this is suggested.

Education sessions and communication strategies can strongly promote the collaborative practices necessary for yielding better outcomes in patient treatments.[35] Similar to the present study, small group educational sessions for staff key have been identified as facilitating EBP implementation.[11]

Our mass media strategy attracted a lot of interest from participants in the message regarding the EBP implementation. This finding concurs with another study that reported that mass media was a key strategy used by the Russian Federation for raising awareness at governmental and societal levels on the importance of nursing or midwifery work.[36] In addition, the use of the mobile phone LINE application in the present study to inform the participants of various matters proved effective, and was a culture that had already been accepted in Thai nursing.

Our dissemination strategy increased participants' awareness, interest and motivation toward EBP implementation. This finding is in line with those of a study where efficient approaches discovered as helpful were disseminating information on the positive characteristics of an EBP such as the anticipated advantages of the change, compatibility with organization culture and resources to support activities under the project.[37]

Reminder strategy. Using this strategy was feasible and contributed to practice changes of our participants regarding CWPM. Similarly, a systemic review of 28 randomized controlled trials evaluating point-of-care computer reminders found that the reminders achieved small to moderate improvements in provider behavior.[38]

Monitoring was the major strategy used for following up on the nurses' actions in EBP implementation.[39] However, the period of monitoring (11 weeks) was too short to make the WPMM implementation become part of the culture of the ward. One study reviewed emphasized the sustainability of clinical guideline implementation over time for adults with asthma and diabetes; after three years of follow-up, significant improvements were achieved and the guideline implementation had become sustainable.[40]

Conclusions and Implications for Nursing Practice

This two-phase study resulted in the development of a model for change implementation for evidence-based CWPM that can be used in other settings in Thailand. Overseeing the identified factors and well managing such factors using the major strategies, minor strategies, and activities employed in this study may help achieve desired outcomes, in this case implementation of evidence-based CWPM, in other hospital wards. Preparing the setting and the participating nurses in that setting and utilizing mutual collaborative action research resulted in the CLEVER Model. The acronym CLEVER stands for key success factors for implementing change Context and Culture, Leader, Effective driving change, Voice, Empowerment, and Re-audit. These factors, we believe, are important for EBP implementation to ensure successful change occurs. Additionally, 12 strategies (6 major strategies and 6 minor strategies) were applied throughout the EBP implementation process. The applications of these strategies need to concur with the objectives of each step of change (Unfreezing, Moving, and Refreezing).

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การพัฒนาแบบจำลองการเปลี่ยนแปลงโดยใช้กลยุทธ์ในการนำหลักฐานเชิงประจักษ์เกี่ยวกับการจัดการความปวดในแผลเรื้อรังสู่การปฏิบัติ

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บทคัดย่อ: ความปวดในแผลเรื้อรังยังไม่ได้รับการจัดการที่ดีพอในประเทศไทยแม้ว่าจะมีแนวปฏิบัติที่สามารถหาได้แล้วก็ตามการพัฒนาแบบจำลองการเปลี่ยนแปลงโดยใช้กลยุทธ์ในการนำหลักฐานเชิงประจักษ์มาใช้โดยคำนึงถึงบริบทของระบบบริการสุขภาพในประเทศไทยนั้นเป็นสิ่งมีคุณค่าที่จะช่วยลดความทุกข์ทรมานและพัฒนาคุณภาพชีวิตของผู้ป่วยที่มีแผลเรื้อรังการศึกษานี้มีวัตถุประสงค์เพื่อพัฒนาแบบจำลองการเปลี่ยนแปลงโดยใช้กลยุทธ์ในการนำหลักฐานเชิงประจักษ์เกี่ยวกับการจัดการความปวดแผลเรื้อรังสู่การปฏิบัติสำหรับพยาบาลในประเทศไทยศึกษาโดยใช้กระบวนการวิจัยเชิงปฏิบัติการแบบมีส่วนร่วมในพยาบาลวิชาชีพ20ราย ณ โรงพยาบาลระดับตติยภูมิแห่งหนึ่งในจังหวัดทางภาคเหนือของประเทศไทยร่วมกับการใช้แบบจำลองการเปลี่ยนแปลงแบบวางแผนของเลวินท์, แบบจำลองบันไดสามขั้นของการเปลี่ยนแปลงซึ่งประกอบด้วยการละลายการเคลื่อนที่และการแช่แข็งโดยได้นำแบบจำลองการจัดการความปวดแผลมาใช้ในส่วนเนื้อหาที่ครอบคลุมการประเมินและการจัดการความปวดแผลเรื้อรังการศึกษานี้ประกอบด้วยสองส่วนส่วนแรกคือขั้นตอนของการเตรียมความพร้อมมีวัตถุประสงค์เพื่อวิเคราะห์บริบทและพัฒนาแบบจำลองชั่วคราวส่วนที่สองคือกระบวนการวิจัยเชิงปฏิบัติการแบบมีส่วนร่วมมีวัตถุประสงค์เพื่อจัดการประชุมเชิงปฏิบัติการและปรับปรุงรูปแบบของเคลฟเวอร์โมเดล

สิบสองกลยุทธ์ถูกพัฒนาและดำเนินการตามลำดับของการละลายการเคลื่อนที่และการแช่แข็งในการนำหลักฐานเชิงประจักษ์ของการจัดการแผลเรื้อรังสู่การปฏิบัติCLEVER คือองค์ประกอบสำคัญที่ทำให้การนำหลักฐานเชิงประจักษ์สู่การปฏิบัติประสบความสำเร็จโดยตัวย่อต่างๆแทนความหมายดังต่อไปนี้C หมายถึงบริบทและวัฒนธรรมLหมายถึงผู้นำE หมายถึงการเปลี่ยนแปลงที่ขับเคลื่อนอย่างมีประสิทธิผลVหมายถึงการแสดงความคิดเห็นE หมายถึงการสร้างเสริมพลังอำนาจและR หมายถึงการตรวจสอบซ้ำเคลฟเวอร์โมเดลนี้พัฒนาสำหรับการนำหลักฐานเชิงประจักษ์เกี่ยวกับการจัดการความปวดแผลเรื้อรังมาใช้ในการปฏิบัติอย่างเป็นประโยชน์และสามารถใช้เพื่อเป็นแนวทางสำหรับแนวปฏิบัติหลักฐานเชิงประจักษ์อื่นๆต่อไป

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คำสำคัญ: การเปลี่ยนแปลง แผลเรื้อรัง กระบวนการวิจัยเชิงปฏิบัติการแบบมีส่วนร่วม กลยุทธ์สู่การปฏิบัติ การจัดการความปวดแผลเรื้อรัง การพยาบาล

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