

HEALTHCARE PROVIDERS KNOWLEDGE  
ATTITUDES AND BELIEFS TOWARD  
THE CALM COPING SCALE

Giuliana C. Tuma

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Approved by:

*Terry Wicks, DNP, CRNA*

Project Team Leader

*Vadim Korogoda, DNP CRNA*

Project Team Member

*Lori Lupe, Ph D*

DNP Program Director

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## Abstract

**Background:** One of the most effective ways to diagnose and treat laboring women's breakthrough pain is to use a high-quality pain scale. The antiquated 0-10 numeric pain scale does not adequately assess laboring women's pain, as zero is not a realistic pain score during labor. The CALM coping scale is an algorithm and a numeric scale with multiple categories to allow the healthcare staff to evaluate whether the laboring woman is coping or not coping. This scale is not well known but has improved laboring women's pain management.

**Purpose:** This project aims to discover the knowledge, attitudes, and beliefs of healthcare providers working in a labor and delivery unit regarding the CALM coping scale.

**Methods:** A computer-based pre-survey was distributed to assess healthcare providers' knowledge, attitudes, and beliefs regarding the CALM coping scale. After completing the pre-survey, the healthcare providers were provided an education in-service on the CALM coping scale. A follow-up post-survey was administered after using the scale for a total of 3 months.

**Setting:** An 18-bed labor and delivery unit at a women and children's hospital located in central North Carolina.

**Participants:** A sample of 60 healthcare providers of the 114 who work in the project's labor and delivery unit.

**Results:** Most providers were unfamiliar with the CALM coping scale, but agreed they are more likely to use the CALM coping scale versus the numeric pain scale, due to its accuracy.

Providers perceived patients complained of less pain when using the CALM coping scale, and narcotic use was decreased. Nonpharmacologic pain relief methods included emotional support, position changes, and a calm environment.

**Recommendations and Conclusion:** It is essential to understand providers' knowledge, attitudes, and beliefs regarding the CALM coping scale to implement a plan that ensures providers will adhere to this scale within their everyday practice. Frequent in-services addressing current pain management strategies are imperative. Future practice recommendations include conducting this project on a larger scale.

**Keywords:** CALM coping scale, labor and delivery, knowledge and attitudes, labor pain, pain assessment

## **Background and Significance**

Pain management is synonymous with the care of laboring women. Currently, there are many different pain relief options for laboring women. These methods include nitrous oxide, bathing, breathing techniques, massage, and epidural anesthesia (Lindholm & Hildingsson, 2015). Epidural anesthesia is one of the most common methods to relieve pain for laboring women. Today, at least 60% of American women choose epidural analgesia for labor pain management (Phillips, 2018). However, many women expect complete pain relief with this method, which is not always achievable. According to the World Federation of Anesthesiologists, the failure rate of labor epidurals is 9-12% (Seaton, 2018). Breakthrough pain is one of the many challenges laboring women experience, which can be unmet by epidural anesthesia (Carvalho & Mhyre, 2016). Consequently, there is a direct relationship between a laboring woman's achieved analgesia and their satisfaction with analgesic services (Dualé, et al., 2015). Although earlier and greater analgesic interventions seem to be a logical solution to breakthrough pain, they are associated with "dysfunctional labor and the eventual need for cesarean delivery" (Panni & Segal, 2003, p. 957).

One of the most effective ways to diagnose and treat breakthrough pain is to use a high-quality laboring pain scale. The antiquated numeric pain rating scale brackets a "0-10" rating in which "0" entails no pain at all, and "10" is the worst possible pain. This pain scale does not consider the complexity of childbirth pain, including psychological, emotional, social, and cultural components. The Coping Assessment for Laboring Moms (CALM) scale was developed to focus on facial, behavioral, psychosocial, vocalization, and verbal cues to enable holistic nursing support during childbirth (Horn & D'Angelo, 2017). The CALM scale's five main categories include the woman's state of coping, human assistance, emotional state, labor tools,

and position changes (Childbirth Professionals, 2020). An algorithm and a numeric scale within each category allow the healthcare staff to evaluate whether the laboring woman is coping or not coping. Overall, this scale has been shown to improve laboring women's pain management and increase their general satisfaction with hospital and nursing staff regarding analgesia services (Childbirth Professionals, 2020).

### **Problem Statement**

The numeric pain scale is currently being used in labor and delivery units to manage laboring women's pain. However, pain is an expected outcome in childbirth, and therefore, a goal of "0" on the numeric pain scale may not be attainable. Narcotic use is perpetuated when using the numeric pain scale to achieve a Joint Commission Standard of pain reduction. Additionally, labor pain encompasses psychosocial variables such as support and positioning that are not captured using the traditional numeric pain scale. Implementing the "Coping Assessment for Laboring Moms" (CALM) scale will help capture subjective variables and realistically address women's labor pain.

### **Purpose**

The purpose of this project is to discover the knowledge, attitudes, and beliefs of healthcare providers on a labor and delivery unit at a women and children's hospital regarding the CALM coping scale. Upon completion, the healthcare providers will adopt and adhere to the CALM coping scale within their everyday practice and realistically addresses women's labor pain.

### **Review of Current Evidence**

A comprehensive review of the literature was conducted to identify and critique existing studies on pain scales for laboring women and nurses' perceptions. Several search engines were

used. The search engines yielding the most results were PubMed of the National Library of Medicine and CINAHL. A combination of key phrases was used during a complete database search. The search terms were *pain and laboring women, labor pain scales, nurses' perception of labor pain, and coping assessment algorithm for laboring moms*. Reviewing the literature revealed many in healthcare are unfamiliar with the CALM coping scale. Inclusion criteria identified articles focused on intrapartum labor support, including pain management, instead of exclusively on the CALM coping scale itself. The search yielded a total of seven articles. Four qualitative studies, one non-randomized controlled study, one literature review, and one systematic review are included in this literature review.

### **Intrapartum Labor Support**

Intrapartum support is provided through pharmacological and nonpharmacological measures. Nonpharmacological measures are divided into several categories, including physical support, mental support, and emotional support. These measures are essential for supporting laboring women and can significantly predict whether a mother will give birth vaginally or by cesarian section (Edmonds & Jones, 2013). In a study completed by Isbir and Sercekus, "continuously available labor support that an intrapartum nurse provides has been shown as critical to improving birth outcomes" (Isbir and Sercekus, 2017, p.113). Women who received continuous support were more satisfied, had less fear and anxiety, and had significantly lower pain scores (İsbir & Serçekuş, 2017). Fear can cause women to experience more severe pain, and intrapartum support can reduce the rate of opioid use (Hodnett et al., 2012).

In their 2014 study, Rosse-Davie and Cheyne (2014) devised a questionnaire for postpartum mothers to rate nursing behaviors that were most important to them during labor. The interventions identified most frequently were: "made me feel cared about as an individual,

touched me, treated me with respect, praised me, appeared calm and confident, provided a sense of security, spent time in the room, instructed me in breathing, and made me physically comfortable” (Rosse-Davie & Cheyne, 2014, p. 55) All these actions emphasize the importance of intrapartum support. One of the least frequently chosen behaviors was providing pain medication (Ross-Davie & Cheyne, 2014). These findings underscore the importance of focusing on intrapartum support for laboring moms to ensure adequate coping and less on the importance of providing pharmacological means (Ross-Davie & Cheyne, 2014).

### **Pain Management and Nursing Perspective**

Pain is a natural physiological manifestation of labor and childbirth. This manifestation is a combination of many factors and can vary significantly from woman to woman. Lowe (2002) described Chapman's conceptual pain model as applied to a woman's labor experience, noting that pain is highly individual and has both emotional and sensory components. Most women in labor require pain relief (Jones et al., 2012). One of the most frequent clinical practice challenges is assessing the pain accurately (Roberts et al., 2010). The numeric rating scale currently used throughout the United States has significant limitations. Roberts et al. (2010) found that when women were asked to rate their pain on the numeric rating scale, they would express "confusion and sometimes annoyance" with the request. Most women stated they were unsure whether to rate their pain between contractions or during contractions (Roberts et al., 2010). According to Gulliver et al. (2008), patients indicated they felt "unclear" on how to respond to the numeric rating scale and "to rate their pain did not help them manage their labor and was distracting” (p.406). Thus, the numeric rating scale is viewed as more of a barrier than an aid to an appropriate assessment.



Nurses believe they can play a greater role in creating comfort for laboring women with a more appropriate assessment tool. Nurses have expressed concern that they were not meeting the needs of a parturient, including easing the pain felt during childbirth (Pieszak et al., 2015). Overall, nurses need better tools to reduce perceived pain during labor. In a study by Chance et al. (2018), nurses felt they could have a powerful influence on patient satisfaction and pain relief but encountered numerous barriers to providing effective support to laboring women. The reasons for not providing continuous labor support include coexisting responsibilities, negative attitudes of staff, inadequate staffing, or simply a lack of knowledge about constant labor support (Burgess, 2014). Another obstacle included the general use of the numeric rating scale. Nurses felt the current numeric scale is unclear, and the numeric rating did not help them manage the patient's pain (Gulliver et al., 2008). They believe the numeric rating scale is limited in nonpharmacological labor management options (Gulliver et al., 2008).

The CALM coping algorithm was implemented at The University of Utah Hospital in Salt Lake City, and the nursing response was overwhelmingly positive. After six months of implementing the CALM coping algorithm, a survey was given to labor and delivery nurses at The University of Utah Hospital, inquiring about their thoughts on the CALM coping algorithm. The most common response was nurses felt the coping algorithm was beneficial to laboring women and provided a better assessment tool. Overall, they believed this was a substantial improvement from the numeric rating scale. Written responses of the nurses included, "we focus more on how the patient feels rather than a number" and "does not focus on labor as 'pain' but rather a process in which pain is not good or bad" (Roberts et al., 2010, p. 111). The CALM Scale coping algorithm has been approved and recognized by the Joint Commission inspection and has been proven to be a helpful tool in assessing and managing laboring women. Pain

management intervention will always be a part of labor and delivery, and for nurses to continue to use the coping algorithm, education is imperative. The Joint Commission recognizes the 0 to 10 numeric rating scale is not effective for all patient populations. The standard is intended to ensure an appropriate approach to pain management in special populations.

### **Theoretical Model**

The theoretical framework applied to this project is the “Awareness to Adherence Model.” This model helps transition those into a new practice and helps those continue to adhere to the new practice. The model is built upon four categories: aware, agree, adopt, and adhere (Pathman, et al., 1996).

This framework fits into this project as I assessed the health care providers’ increased knowledge, positive attitudes, and beliefs, and ultimately adoption of and adherence to the CALM coping tool as a guide for laboring patients to have better-managed pain. The first step was introducing the labor and delivery health care providers to the CALM coping scale. They were educated on how the scale works and why it is superior to the numeric rating scale, specifically for laboring women. Once the providers were made aware, they agreed to use the CALM coping scale due to its vast benefits. After using the scale for two months, the providers will adopt this as their new practice. Once providers have implemented this scale into their everyday practice, they will adhere to the new way of assessing laboring women’s pain.

### **Methods**

The method used to collect data included a pre-intervention survey, a CALM coping scale educational in-service, and a follow-up post-intervention survey after use of the scale for two months. The pre-intervention survey was emailed to all labor and delivery healthcare providers and included questions about their attitudes, knowledge, and beliefs regarding the

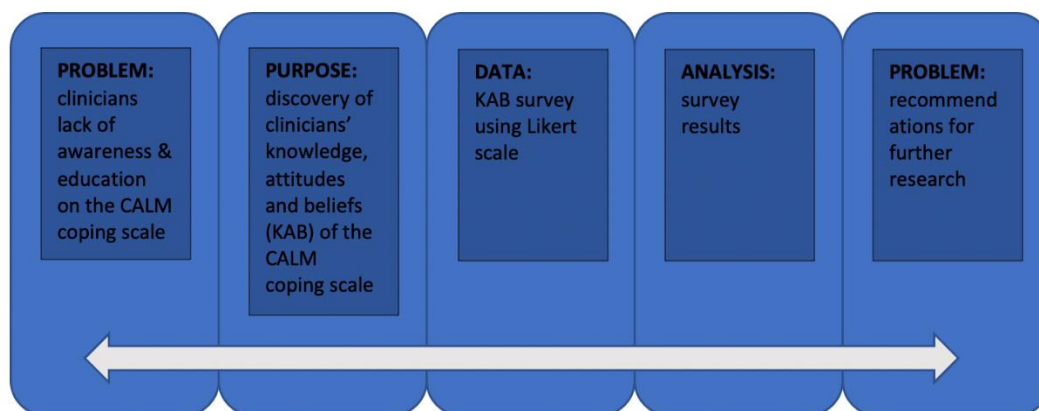
numeric rating scale and the CALM coping scale. The pre-intervention survey also included demographic data. The staff had two weeks to complete the survey. After the surveys were collected, the team received an educational in-service on the CALM coping scale by the labor and delivery nurse educational specialist. The staff then used the CALM coping scale on their unit for two months. At the end of two months, a post-intervention survey was distributed. This survey included a reassessment of their knowledge, attitudes, and beliefs about both pain scales. Responses were assessed to determine whether the staff had a more positive view of the CALM coping scale compared to the numeric rating scale.

### **Design**

Published guidelines by the Joint Commission state that the numeric rating scale is not helpful for all patient populations. The "Coping Assessment for Laboring Moms" (CALM) scale was developed to focus on facial, behavioral, psychosocial, vocalization, and verbal expressions to aid holistic nursing support during childbirth (Horn & D'Angelo, 2017). The Joint Commission has now approved this scale. Based on a review of literature, an assessment of the attitudes, knowledge, and beliefs of labor and delivery nurses regarding the CALM coping scale needs to be performed. This project uses a descriptive study to determine healthcare providers' knowledge, attitudes, and beliefs regarding the CALM coping scale. Descriptive studies can be executed in various ways, including questionnaire surveys (Given, 2007). This project uses a web-based survey with a Likert scale and open-ended questions.

## *Translational Framework*

**Figure 1: Logic Model of the DNP Project**



The logic model depicts shared relationships among resources, activities, outputs, outcomes, and impacts of a program (CDC, 2018). It represents the relationship between the problem and the intended outcome after implementation. All the logic model components are necessary for the program to have an effect and for the CALM scale to be implemented into daily practice.

The logic model was implemented for this project, as depicted above. The first part of the logic model identifies the problem, which is healthcare providers' lack of awareness regarding the CALM coping scale. The purpose of this project is to identify the knowledge, attitudes, and beliefs of labor and delivery healthcare providers about the CALM coping scale. The data was collected via surveys using a Likert scale, and the results give recommendations for future practice and further research. Each step is integral to changing practice from assessing pain using the numeric rating scale to the CALM coping scale.

### ***Setting***

This project was conducted in an 18-bed labor and delivery unit at a women's hospital located in central North Carolina.

### ***Participants***

The participants included 114 healthcare providers who work specifically in the labor and delivery unit. Inclusion criteria encompassed all healthcare providers working specifically in labor and delivery. Exclusion criteria encompassed any healthcare provider working on the unit temporarily. All participation was anonymous and voluntary.

### ***Data Collection***

**Procedures.** The surveys were developed using Qualtrics, a web-based survey platform. The surveys were distributed via a link sent through the institution's email system to all 114 labor and delivery healthcare providers. The pre-survey was sent on May 4<sup>th</sup>, 2021, and it was available for 14 days. After the pre-survey closed on May 18<sup>th</sup>, 2021, the healthcare providers in the labor and delivery unit were given an in-service on the CALM coping scale by the nurse educational specialist. The providers then used the CALM coping scale during June and July, a total of two months. The post-survey was sent on August 1<sup>st</sup>, 2021, and was available for 14 days.

All completed surveys were voluntary and anonymous. Consent to participate in this project was assumed when the provider connected to the survey via the emailed link. The data was kept private through the Qualtrics program, which could only be accessed via my email address and was password protected through a multifactor verification system.

**Instruments.** The pre-intervention survey consisted of 11 questions (Appendix A). Four demographic data questions collected data on gender, age, education level, and years of labor and delivery experience; the survey included one open-ended question and six Likert scale questions. The post-intervention survey consisted of six questions (Appendix B). Three Likert scale questions, two open-ended questions, and one question with only two answer choices. The

surveys were able to be completed in five minutes or less.

### **Data Analysis**

The quantitative data from the pre and post-interventional surveys were analyzed via descriptive statistics derived from the Likert scale. The Likert scale consisted of the following response options: strongly agree=5, agree=4, neither agree nor disagree=3, disagree= 2, and strongly disagree=1. The pre and post-survey quantitative data were analyzed using descriptive statistics. The open-ended questions were analyzed for common themes and recommendations were made to guide future research.

## **Results**

### **Sample Demographics**

The pre-intervention survey was distributed to 114 labor and delivery healthcare providers using an anonymous link via their hospital email. Responses were obtained from 60 healthcare providers, with a response rate of approximately 52.6%. Table 1 lists the demographics and workplace characteristics of the sample. Most of the survey participants were female (n=58; 96.67%), between the ages of 25-34 (n= 33; 55%), held a bachelor's degree (n=42; 72.41%), and have worked as a labor and delivery nurse for 2-5 years (n=29; 48.33%). There were no male participants, and two non-binary or third-gender participants participated in the survey. Only 18.33% of the survey participants had less than two years of experience in labor and delivery, while 21.67% have worked in labor and delivery for more than ten years. Approximately 13% (n=8) of respondents held either a master's or doctorate, while the same number held an associate's degree.

Table 1. Demographic and Workplace Characteristics (n=60)

Characteristic	Frequency (%)	Sample Size (n)
<b>Gender</b>		
Female	96.67%	58
Male	0%	0
Non-Binary/Third Gender	3.33%	2
<b>Age</b>		
18-24	5%	3
25-34	55%	33
35-44	25%	15
45-54	11.67%	7
55-64	3.33%	2
<b>Education Level</b>		
Associate's Degree	13.79%	8
Bachelor's Degree	72.41%	42
Masters Degree	12.07%	7
Doctorate Degree	1.72%	1
<b>L&amp;D Experience</b>		
<2 years	18.33%	11
2-5 years	48.33%	29
6-10 years	11.67%	7
>10 years	21.67%	13

### Pre-Intervention Survey

Responses to the pre-survey were obtained from 61 healthcare providers, with a response rate of 53.5%. Table 2 lists responses to the first pre-survey question, "all laboring women have pain." Thirty-nine or 63.93% of respondents strongly agreed with this statement, while 24.59% (n=15) only somewhat agreed with this statement. A total of less than 12% (n=7) either strongly disagreed, somewhat disagreed, or neither agreed nor disagreed with this statement. The mean response on the Likert scale was 4.46, and the standard deviation was 0.88.

When asked, "I always use the 0-10 pain scale for laboring women," 18.03% (n=11) strongly agreed with this statement, and 49.18% (n=30) somewhat agreed. Four respondents, or 6.56% neither agreed nor disagreed, 16.39% (n=10) somewhat disagreed, and 9.84% (n=6) strongly disagreed. The mean response on the Likert scale was 3.49, and the standard deviation was 1.24.

Thirty-four or 55.74% of participants said they strongly disagree when responding to "0 is a realistic pain score for laboring women. Twelve participants or 19.67% somewhat disagreed, while only 3.28% (n=2) neither agreed nor disagreed. Eight participants or 13.11% responded they somewhat agreed, and 8.2% (n=5) strongly agreed. The mean response on the Likert scale was 1.98, and the standard deviation was 1.36.

Twenty-two or 36.07% of participants strongly disagreed that the 0-10 pain scale is effective at capturing laboring women's pain, and 40.98% (n=25) somewhat disagreed with this statement (Table 5). Six participants, or 9.84% neither agreed nor disagreed, 11.48% (n=7) somewhat agreed and only 1.64% (n=1) strongly agreed. The mean response on the Likert scale was 2.02, and the standard deviation was 1.03.

When it came to the use of narcotics, 34.43% (n=21) of participants somewhat agreed that the 0-10 pain scale increases the use of narcotics. Only 14.75% (n=9) strongly agreed with this statement, while 29.51% (n=18) neither agreed nor disagreed, 11.48% (n=7) somewhat disagreed and 9.84% (n=6) strongly disagreed. The mean response on the Likert scale was 3.33, and the standard deviation was 1.16.

When asked if the respondents were familiar with the CALM coping scale, a large majority, 63.93% (n=39), strongly disagreed. Nine participants or 14.75% somewhat disagreed, and 11.48% (n=7) neither agreed nor disagreed. Only 3.28% (n=2) somewhat agreed that they were familiar with the CALM coping scale, and 6.56% (n=4) strongly agreed. The mean response on the Likert scale was 1.74, and the standard deviation was 1.19.

### **Post-Intervention Survey**

The post-survey responses were obtained from 47 healthcare providers, with a response rate of approximately 41.2%. When participants were asked if they were more likely to use the



CALM coping scale over the 0-10 pain scale (Table 8), 51.06% (n=24) strongly agreed. Another 27.66% (n=13) somewhat agreed with this statement. Only 6.38% (n=3), 4.26% (n=2), and 10.64% (n=5) neither agreed nor disagreed, somewhat disagreed, and strongly disagreed, respectively. The mean response on the Likert scale was 4.04, and the standard deviation was 1.30.

Regarding the CALM coping scale and the decreased use of narcotics, seventeen participants, or 36.17% somewhat agreed, while 8.51% (n=4) strongly agreed. Participants that neither agreed nor disagreed accounted for 29.79% (n=14). Only 14.89% (n=7) and 10.64% (n=5) strongly disagreed and somewhat disagreed. The mean response on the Likert scale was 3.13, and the standard deviation was 1.18.

Lastly, participants were asked if they believed patients complained of less pain when being managed with the CALM coping scale. Eleven participants, or 23.4% strongly agreed with this state, and 27.66% (n=13) somewhat agreed. The majority neither agreed nor disagreed (29.79%; n=14). Only 8.51% (n=4) somewhat disagreed and 10.64% (n=5) strongly disagreed. The mean response on the Likert scale was 3.45, and the standard deviation was 1.23.

A total of 36 participants (78.26%) believe the CALM coping scale is more effective for accurately assessing laboring women's pain, while only 10 participants (21.74%) believe the 0-10 pain scale is more effective.

### **Themes: Open-Ended Questions**

The pre and post-surveys consisted of four open-ended questions where participants could free text answers to the questions. These questions asked what nonpharmacologic interventions could help relieve laboring women's pain, suggestions, or improvements regarding

the CALM coping scale, and if the participants needed additional education on the CALM coping scale. All participants answered "no" to the final two open-ended questions.

### ***Nonpharmacologic Pain Relief Methods***

The first open-ended question asked, "What other factors do you believe could help relieve laboring women's pain other than medication?". The most common answers amongst participants included, "position changes", "emotional support", "movement", "breathing", "heat", and a "calm environment". One nurse stated they believed pain medication should be the last step of pain relief after hands-on support. Another participant made the following statement

Setting up a soothing environment, improving access to labor preparation, classes/resources, setting realistic expectations for pain and labor progress. More use of intermittent monitoring that would allow for more showering and unrestricted movement. Many nurses added any type of support is helpful, including staff support, environmental support, emotional support, and physical support. Additional methods included pre-education on comfort methods during labor and what to expect.

### **Discussion**

The purpose of this scholarly project was to discover the knowledge, attitudes, and beliefs of healthcare providers in the labor & delivery unit at a women and children's hospital regarding the CALM coping scale for laboring women.

One of the most effective ways to diagnose and treat breakthrough pain is to use a high-quality laboring pain scale. The CALM coping scale is an algorithm and a numeric scale with multiple categories to allow the healthcare staff to evaluate whether the laboring woman is coping or not coping. This scale has been shown to improve laboring women's pain

management and increase their general satisfaction with hospital and nursing staff regarding analgesia services (Childbirth Professionals, 2020).

Despite the need for improved assessment of laboring women's pain, the CALM coping scale is not widely adopted in labor and delivery units. Understanding the beliefs guiding current practices in treating laboring women's pain is necessary to improve practice.

All the results were congruent with the current literature. Many healthcare providers agreed that all laboring women have pain and achieving a pain score of zero is not realistic. Respondents also corresponded the numeric pain scale does not capture laboring women's pain accurately. Despite most respondents' disapproval of the numeric rating scale, almost 75% of providers were unfamiliar with the CALM coping scale. This is the biggest barrier to the CALM scale being used daily. Overall, most providers agreed they are more likely to use the CALM instead of the numeric pain scale. Narcotic use was also decreased. In general, participants believed that patients complained of less pain, and providers believed they could assess patients' pain more accurately using the CALM scale.

### **Limitations**

The limitations of this project have several sources. The first source is the population studied. The sample was drawn from one specific hospital, and this could have accounted for many participants not knowing about the CALM coping scale. This is a limiting factor because participants from multiple different facilities could have had more knowledge about the CALM scale. Most participants only had two to five years of experience in labor and delivery. This is a contributing limitation because with more experience, comes more knowledge. Typically, when working on a unit, the longer you work there, the more inclined you are to know about different techniques. Another includes the education portion of the CALM coping scale. The hospital's

labor and delivery nurse education specialist provided the CALM scale education, and I could not control how the new information was presented, due to hospital policy. There may have been inconsistencies in the educational presentation.

### **Relevance and Recommendations for Clinical Practice**

The results of this project are consistent with literature reports suggesting the CALM coping scale is not widely known or used in labor and delivery units. However, once the CALM scale was used, the providers found this pain scale more practical when treating laboring women's pain. Regular in-services regarding current pain management strategies are of utmost importance in this unit. Without knowledge of current pain management strategies, providers cannot provide optimum care for their patients. Future practice recommendations include conducting this project on a larger scale at more hospitals. Overall, results from this project will provide evidence to encourage providers to adopt the CALM coping scale within their everyday labor and delivery practice. To initiate this plan, it is essential to understand the providers' knowledge, attitudes, and beliefs regarding the CALM coping scale.

### **Conclusion**

Pain management is a critical component of caring for laboring women. Currently, the numeric pain scale is widely used throughout the United States in labor and delivery units. Current research indicates labor pain encompasses psychosocial variables such as support and positioning that are not captured using the traditional numeric pain scale. The CALM coping scale was developed to address these psychosocial variables. The CALM coping scale is not well known among providers, and therefore the goal of this project was to assess healthcare providers' knowledge, attitudes, and beliefs regarding this scale. Based on the results of this project the hospital plans to encourage that providers employ the CALM coping scale when

caring for laboring women. This project will be presented via a poster presentation to the University of North Carolina at Greensboro, School of Nursing, in the spring of 2022.

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## Appendix A

### Pre-Survey

Please respond with how much you agree or disagree with the statements below

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
All laboring women have pain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I always use the 0-10 pain scale for laboring women	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
0 is a realistic pain score for laboring women	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The 0-10 pain scale is effective at capturing laboring women's pain	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The 0-10 pain scale increases the use of narcotics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am familiar with the CALM Coping pain scale for laboring women	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What other factors do you believe could help relieve laboring women's pain other than medication?

I am

 Male

 Female

 Non-binary / third gender

 Prefer not to say

Highest level of nursing education

 Associates Degree

 Bachelors Degree

 Masters Degree

 Doctorate Degree

My Age is

 18 - 24

 25 - 34

 35 - 44

 45 - 54

 55 - 64

 65 or older

I have work for how many years as a labor and delivery nurse

 Less than 2 years

 2-5 years

 6-10 years

 Greater than 10 years

## Appendix B

### Post Survey

Please respond with how much you agree or disagree with the statements below

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I am more likely to use the Calm Coping scale over the 0-10 pain scale	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Calm Coping scale decreases the use of narcotics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Patients complain of less pain when managed using the Calm Coping scale	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Which pain scale do you think is more effective for accurately assessing laboring women's pain?

0-10 Pain Scale

CALM Coping Scale

Do you have any suggestions or improvements that could be made to the CALM coping assessment?

Do you have any additional educational needs regarding the CALM scale?