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Nursing student confidence in implementing comfort measures with the laboring client

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Nursing student confidence in implementing comfort measures with the laboring client

Abstract

Student self-efficacy in implementing comfort measures with the laboring client is examined at a baccalaureate school of nursing (BSN) in the midwest. Results indicated that students were not fully confident in their ability to perform these comfort measures towards the end of their Nursing Care of Childbearing Families lecture and clinical courses. These findings suggest that teaching methods are examined to find areas that could use improvement in order to increase student self-efficacy in implementing comfort measures with the laboring client.

Degree Type

Open Access Senior Honors Thesis

Department

Nursing

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Keywords

comfort measures, student self-efficacy, laboring client

Subject Categories

Nursing



NURSING STUDENT CONFIDENCE IN IMPLEMENTING COMFORT MEASURES WITH THE LABORING CLIENT

By Heily Alvelo-Saada

A Senior Thesis Submitted to the
Eastern Michigan University
Honors College
in Partial Fulfillment of the Requirements for Graduation
with Honors in Nursing

| Approved | at Ypsilanti, Michigan, on this date | March 22, 2020 |
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Nursing Student Confidence in Implementing Comfort Measures with the Laboring Client
Heily E. Alvelo

Eastern Michigan University



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Abstract

Student self-efficacy in implementing comfort measures with the laboring client is examined at a baccalaureate school of nursing (BSN) in the midwest. Results indicated that students were not fully confident in their ability to perform these comfort measures towards the end of their Nursing Care of Childbearing Families lecture and clinical courses. These findings suggest that teaching methods are examined to find areas that could use improvement in order to increase student self-efficacy in implementing comfort measures with the laboring client.

Keywords: comfort measures, student self-efficacy, laboring client

clients.

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Nursing Student Confidence in Implementing Comfort Measures with the Laboring Client

Labor and delivery can be intimidating for a mother hoping to make the birth of her baby a precious memory, thus searching for methods to overcome this fear is crucial in making this moment in her life a beautiful experience. Some women may be searching for more ways to gain control over their delivery experiences and possibly avoid pharmacological pain management options. Fortunately, there are alternatives for a mother-to-be with these wishes. Laboring clients may look to health professionals for guidance and education on ways to best suit their laboring needs. Although there are many health professionals a client may go to for advice, many times, the nurse will be the one spending the majority of time with the client.

Non-pharmacological pain management during labor and delivery is an important practice for nurses to learn and perform. Some examples of pain management techniques that nurses can learn and implement include ambulation and positioning, continuous physical and emotional support, breathing and relaxation techniques, and backache relief measures. By implementing these comfort measures, the nurse can help improve the childbirth experience for laboring

Ambulation and positioning during labor can be a helpful tool for laboring patients and has many benefits for both the mother and baby. Lawrence, Lewis, Hofmeyr, & Styles (2013) found that use of ambulation and upright positioning, as opposed to recumbent positions (lying on the back), can contribute to shorter duration of the first stage of labor, decreased use of regional analgesia (epidural), lower pain scores, decreased likelihood of cesarean delivery, and decreased likelihood of neonatal intensive care admission following birth. These outcomes are ones that may be desirable for the laboring client, as a shorter duration of labor means a shorter

duration of pain in that first stage of labor. Increased spontaneous vaginal delivery is a desirable outcome because a spontaneous vaginal delivery means induction or augmentation of labor by medication or operative deliveries are not necessary (Lawrence et al., 2013). Upright and ambulant positions were found to have no association with the increased use of intervention or negative effect on mom or baby. The practice of upright and ambulant positions is one that can be easily encouraged and taught by the nurse to the laboring client to improve outcomes.

Recumbent positions during labor may have adverse effects on uterine contractions and labor progress and may even lead to decreased placental blood flow in some patients. It is recommended for low-risk laboring clients to ambulate and change positions to find what is most comfortable to them (Lawrence et al., 2013).

Continuous support during labor and delivery is another method nurses can utilize to optimize satisfaction for their laboring patients. Support may include things such as massage, touch, ambulation, showers or baths, emotional presence, reassurance, and praise during the process. According to a study by Bohren, Hofmeyr, Sakala, Fukuzawa, & Cuthbert (2017), continuous support has led to an increased likelihood of spontaneous vaginal delivery and a decrease in the following: labor time, instrumental vaginal births, cesarean births, use of regional anesthesia, risk of low 5-minute Apgar scores, and the likelihood of reporting negative feelings about their childbirth experience. Someone who can aid in these forms of support could be the support person with the laboring client.

The support person may also advocate on behalf of the patient when needed. Support can come from different people and in various forms. In some cases, the support person may be a partner, parent, or companion. Other times the nurse may play the primary role as a support

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person. According to Bohren et al. (2017), women value and also benefit from a support person during labor and childbirth. These continuous support actions prove to have positive benefits for the client, which is why it acts as another excellent comfort measure that nurses should implement into their practice with the laboring client.

Breathing exercises are one of the most common methods of non-pharmacological pain relief during childbirth during the first stage of labor. These exercises can come in many forms and provide many benefits. Breathing exercises can promote physical and emotional relaxation by reducing muscle tension and reducing overall pain since oxygenated muscles function more efficiently (Nattah & Abbas, 2015). Brown, Douglas, & Flood (2001), state that breathing techniques were the most effective method used for pain relief during labor, followed by relaxation, acupressure, and massage. Nattah and Abbas (2015), found that pain levels were significantly lower in the slow deep breathing group when compared to light accelerated breathing and variable (transition) breathing. By assisting clients with breathing techniques, the nurse can promote oxygenation, promote physical and emotional relaxation, and decrease pain scores among their laboring clients.

Back pain can account for a significant portion of labor pains. An effective measure for reducing this pain is counter-pressure massages. Counter-pressure involves using hands to apply persistent pressure in the sacral region of the laboring clients back during contractions. It was found that there was a significant reduction in pain during labor following the implementation of counter-pressure techniques (Oktriani, Ermawati & Bachtiar, 2018). The gate control theory of pain explains that pain is controlled by a gate system between the sensory input and the perception and response (Melzack & Wall, 1965). The gate control theory provides an

explanation for counter pressure as a form of pain relief. The stimulus of the pressure-counteracts the signals of pain from the nerves to the brain to close the gate and therefore block pain (Oktriani et al., 2018). Counter-pressure as a method of pain management is effective and should be offered and utilized to help relieve back pain in the laboring client.

Pressure massage techniques can be taught to the support person if they so wish and could also be a way to form a stronger support system for the client for backache relief during labor.

There are various methods and techniques available for the laboring client who wishes to avoid pharmacological treatment of pain. It is essential to listen to the client's needs and wishes for their birthing process as pain can have adverse effects on both the client and the baby.

Preparing a mother for labor by informing her of these options and giving her the tools she needs can lead to a more positive experience overall (Lliadou, 2009). Ambulation and positioning, continuous physical and emotional support, breathing and relaxation techniques, and backache relief measures are some of the different methods the nurse can utilize to help improve the childbirth experience for laboring clients. By giving women these choice opportunities, they gain control over their delivery experiences and can make this moment in their life a beautiful moment to remember.

For a nurse to be able to provide these options to their laboring patients, they must have learned about these evidence-based practices and the benefits. This goes back to their education in nursing school, the basis of their nursing knowledge. It is through their entire education, but especially in their childbearing class and clinical, that they start the foundation of their knowledge on this topic.

The purpose of this project was to determine whether nursing students are confident in their knowledge and ability to perform these various comfort measures with their laboring clients. A survey tool written by Davies and Hodnett (2002) was utilized to gain better insight into nursing students' self-efficacy regarding comfort measures towards the end of their Nursing Care of the Childbearing Family class and clinical. The results of the project, along with a review of the literature were then used to recommend strategies to improve students' self-efficacy.

Method

Setting

This study took place in a baccalaureate school of nursing located in the United States midwest region. The students surveyed were at the end of the classes Nursing Care of Childbearing Families and Nursing Care of Childbearing Families Clinical. All students were in the same didactic course which included in-class and online lectures, case studies, reading assignments with correlating quizzes, and online exams. For the clinical course, students were located in various clinical settings including the labor and delivery unit, triage, postpartum / mother-baby units, NICU, and antepartum units.

Participants

Pre-licensure nursing students in a BSN program were recruited from their class on Nursing Care of the Childbearing Family. Students were in their second year of nursing school, in the winter 2019 semester. Students located at various clinical locations had different clinical experiences. Some students may have observed many births, while some may have not observed any. Although students may have seen the process of implementing comfort measures, never

were students in control of the comfort measures aspect of the client's care, and it remains unknown which comfort measures were utilized for each observed labor. No compensation was received by participants for their participation. Of the 40 students in the course, 27 responded to the survey (60% response rate).

Materials and Procedure

The survey was administered to students to determine their self-efficacy in implementing comfort measures with the laboring client. Davies and Hodnett's (2002) survey tool was utilized. Davies and Hodnett (2002) developed the survey tool based on item scales, literature reviews, and observation tools. The tool is called Self-Efficacy Labor Support Scale. The scale includes Cronbach's alpha coefficient for the labor support scale as. 98 and the test-retest correlation of .93 as a message of internal consistency (Davies & Hodnett, 2002).

Following IRB approval, the survey was converted into a Google Form (as shown in Appendix B), then distributed via student email. Fourteen questions were presented on a scale from one to seven, with one representing "strongly disagree" and seven representing "strongly agree". Results are then converted into Google Sheets, where the averages and standard deviations were calculated and then analyzed.

Results

The analysis focused on the mean and standard deviation of the 14 survey question responses. Results are shown below on table 1: Self-Efficacy in Labor Support Responses. According to the results, the area where students felt more comfortable was in their ability to accept a woman's behavior without judgment, even when unusual/upsetting (M = 5.93, SD = 1.57). Students report that they felt least comfortable dealing with distress and panic situations

(M = 4.04, SD = 1.48). On the survey question inquiring on students' confidence to provide specific backache relief measures, the average was 4.96 on the scale of one to seven, (M = 4.96, SD = 1.53). The average for student confidence in their ability to "assist with breathing/relaxation techniques" was 4.92 on the scale of one to seven, (M = 4.92, SD = 1.35). Students reported an average of 4.67 on the survey question pertaining to knowing what to say and do for reassurance, (M = 4.67, SD = 1.47). The average total score for the 27 participants was 72.21 out of 98 possible points.

Table I
Self-Efficacy in Labor Support Results

| Survey Question | Mean | Standard Deviation |
|---------------------------------------------------------------------------------------|------|-----------------------|
| Accept a woman's behavior without judgement, even when unusual/upsetting? | 5.93 | 1.57 |
| Be continually present with a woman in labor? | 5.74 | 1.26 |
| Assist partner/friend in providing labor support? | 5.59 | 1.25 |
| Physical comfort measures (backache relief measures, non pharmacological pain relief) | 5.33 | 1.36 |
| Review and discuss a woman's preferences (birth plans)? | 5.33 | 1.49 |
| Explain what is happening about labor progress? | 5.22 | 1.45 |
| Use non pharmacological pain relief methods? | 5.15 | 1.41 |
| Information/advice (labor progress) | 5.11 | 1.19 |
| Emotional support (presence, coping mechanisms for distress and panic situations) | 5.11 | 1.40 |
| Suggest alternate positions/movements? | 5.11 | 1.50 |
| Provide specific backache relief measures? | 4.96 | 1.53 |
| Assist with breathing/relaxation techniques? | 4.92 | 1.35 |
| Know what to say and do for reassurance? | 4.67 | 1.47 |
| Deal with distress and panic situations? | 4.04 | 1.48 |

Note. Adapted from "Labor Support: Nurses' Self-Efficacy and Views About Factors Influencing Implementation" by B. L. Davies & E Hodnett, 2002, Journal of Obstetric, Gynecologic, & Neonatal Nursing, 31, p. 50.

Discussion

The results from this survey provide some evidence that BSN students from one university in the Midwest are not entirely comfortable or confident in implementing comfort measures with the laboring client. This is evident from the results, which indicated that in no one area were all students fully confident in their ability to perform the comfort measure in question. There was no cut-off point to determine self-efficacy in the original study. Teaching methods could be examined to ensure students are receiving adequate education and training. Didactic classroom learning, clinical setting learning, and simulation-based learning are all different approaches that can be used in combination to meet different learning styles and that are also supported by learning theories.

Didactic

Nursing students gain knowledge and confidence to perform tasks from a variety of diverse learning methods. Classroom teaching is often a baseline for providing information to students. Educators must provide information in a variety of forms to meet the diverse learning styles of students (Jones et al., 2018). Learning styles are described as "the methods of gathering, processing, interpreting, organizing, and thinking about information" (Marcy, 2001, p. 2). One model of learning styles breaks the styles down into four categories: visual, aural, read/write, and kinesthetic (VARK) (VARK Learn Limited, 2019). These learning styles are ones that can be included in didactic learning based on this VARK model.

Education on comfort measures for the laboring client can start in the classroom in many ways. When exploring various methods of teaching with the VARK learning styles model, there are many ways educators can reach a wide variety of students learning needs (VARK Learn

Limited, 2019). Visual models of the pelvis and video case studies can be provided in class for students to get a visual representation of the skills they are learning. Reading materials with diagrams and visual representations of skills and application questions are also examples of different options for classroom learning. In-class lectures and discussions can address the needs of students who learn best by auditory learning.

Quality teaching enhances the performance of students, which in return leads to higher scores and an increase in student satisfaction (Pike, 1991). Classroom learning allows for students to collaborate with experienced professors to gain knowledge that will be needed to implement the skills in the clinical setting. Collaborative learning can be explained by Vygotsky's sociocultural theory of human learning which suggests that individuals develop by interacting with the society and culture around them (Vygotskij & Cole, 1981). The theory aids in supporting the idea that learners can perform new skills that they could not perform on their own when they are accompanied by a peer or other individual with more knowledge than themselves (Vygotskij & Cole, 1981). A student interacting with a professor will gain knowledge to perform the skills they could initially not perform on their own.

Nursing students who participated in this survey were exposed to various styles of classroom learning. Lectures by the professor included Powerpoints for students to follow along, videos, and case studies. Weekly reading assignments were required prior to lecture, which students used to apply to weekly reading application quizzes. These students were also occasionally exposed to visual models brought in by the professor, such as models of the pelvis and different equipment for cervical examinations, in order to provide more hands-on education.

By providing diverse forms of teaching, the educator can meet the needs of different learning styles and collaborate to teach skills for implementing comfort measures with the laboring client.

Clinical

Clinical setting learning is a form of learning that aids in nursing students becoming more confident and comfortable in their skill performance. There are aspects to clinical education that can be very beneficial to nursing students. Evidence-based practice, case presentations, pre-conference, post-conference, nursing care plans, and variation in experience are all components of clinical setting learning that are beneficial to students (AlThiga, Mohidin, Park & Tekian, 2017). Being able to think critically and apply knowledge in the clinical setting should prepare nursing students to succeed and become registered nurses. Being able to self-reflect and gain feedback from peers, nurses, and instructors is also beneficial (AlThiga et al., 2017). In the Nursing Care of the Childbearing Family clinical, students should ideally be able to observe and perform skills and techniques. Clinical education learning is supported by the motor skills learning theory, which suggests that observational learning, when followed by imitation of the action, is beneficial to the learner. However, this theory also states that increased observational learning can lead to a decrease in hands-on experience, which could have negative effects on the learner (Shiffrin & Schneider, 1977). It is important not only to observe, but to have the chance to imitate the demonstration.

The clinical setting is a great time for students to learn by applying knowledge and putting their skills to work while learning hands-on. There are many skills that can be taught to provide comfort to the laboring client. Pain management techniques include: acupressure, use of a birth ball, heat therapy, music therapy, and hoku point ice massages, to name a few. However,

these techniques can not be performed without hands-on training. Some techniques require training and certification, but others can be taught without need of certification. A nursing student could benefit greatly by observing a nurse or clinical instructor. Students that participated in this survey had a variety of clinical experiences and varied among students depending on the clinical setting and clinical instructor.

Simulation

Finally, another form of learning that can aid a nursing student in implementing comfort measures with the laboring client is simulation-based learning. Simulation-based learning is the use of high, mid, and low fidelity simulators in the form of a mannequin or standardized patients, to create scenarios for nursing students to respond to as they would as a nurse. High fidelity simulators strive to be as realistic as possible, while low fidelity simulators still strive to be close to real-life situations, but may leave out some factors. An example of a high fidelity simulation for nursing students may be an experience with a standardized patient in a practice clinical setting, while an example of a low fidelity simulation may be an online computerized simulation program. With the nursing shortage and the decreasing availability of clinical sites available to nursing schools, simulation-based learning is an emerging tool that has many benefits to students and offers yet another teaching style (Aebersold, 2018). There are components of simulation-based learning that make them beneficial in a way that other learning strategies cannot always offer. When conducted correctly, simulation-based learning provides discussion, reflection, and proper questions to engage learning in the form of debriefing (Aebersold, 2018). Debriefing is an important aspect of simulation based learning because this is where the learning

occurs and students have the chance to reflect on what went well and what could have been better.

Simulations offer learners the chance to ask questions and address important topics, which is why this is a significant learning opportunity. There are several theories to back up simulation based learning. One of these theories is the social learning theory by Bandura (1999). The social learning theory states that learners can learn from their peers by observing and noting any mistakes that a peer makes, so the learner is able to adjust their plan accordingly and picture how they would perform the task themselves (Bandura, 1999). The theory supports the reflection and debriefing aspects of simulation based learning. In a study involving 370 undergraduate nursing students, simulation based learning was implemented into a nursing program for end-of-life care. When describing the success, Fluharty et al. (2012) conclude that there is a significant enhancement in the knowledge of nursing students and that the findings support this particular simulation as a robust and viable source of learning. This suggests a positive student outcome from the effects of simulation-based education. Hayden, Smiley, Alexander, Kardong-Edgren, & Jeffries (2014), found that there was no difference in NCLEX pass rates for students who had either 25% or 50% of their clinical hours replaced by simulations. The information suggests the use of simulation hours to replace clinical hours when needed has no negative consequences. Therefore, if simulation-based learning were included in clinical-based learning, perhaps students would benefit from the increase in experience, hence influencing their confidence levels.

Simulation-based education can be used to help students gain confidence and comfort in providing comfort measures to the laboring client in many ways. Numerous scenarios can be

implemented in the setting, which will give the student a chance to think critically and apply knowledge and skills in a low-risk environment. This learning method could be an ideal way to observe areas of strength and areas of improvement and also to allow the student to have a safe space to practice. Simulation-based learning is an emerging topic that is still experiencing advancements in knowledge and technology (Hayden et al., 2014). Allred & Gerardi (2017), conclude that "computer-based simulation may be valuable in educating nursing students about pain management" (p. 285). This adds yet another form of education that is beneficial for nursing students in gaining confidence and comfort with their knowledge and skill performance in applying comfort measures with their laboring clients.

The students that participated in the survey did receive a simulation-based learning experience as part of their education. In this experience, students were put into various roles, they could have been playing a role as one of the nurses, or they could have been observers. In the simulation a postpartum client was experiencing a postpartum hemorrhage, which the students had to resolve. Students also received a modified simulation in which they were exposed to a variety of topics, mostly pertaining to fetal assessment. Although these experiences provided important education, these were the only simulation-based learning opportunities, and students did not receive a simulation experience on comfort measures to implement with a laboring client.

Though further research is required, the results could indicate that there may be room for improvement with education students are receiving, particularly with simulation based learning. These students did receive didactic lectures that utilized a variety of teaching methods to reach many learning styles. Students also received clinical experiences, although exact experiences

varied. Although students did receive adequate classroom and clinical learning experiences, results were still average indicating students are not fully confident in their ability to perform these comfort measures. It seems that simulation experiences were limited for this group of students as they received only two simulation experiences. Perhaps an increase of various simulation-based experiences would be beneficial in aiding students on implementing comfort measures with the laboring client.

Conclusion

Based on the results from this survey, students in the BSN program were not entirely confident in their ability to perform comfort measures with the laboring client towards the end of their Nursing Care of Childbearing Families lecture and clinical courses. Although students were exposed to many learning styles throughout the course, it may appear that students could benefit from additional simulation based learning experiences.

Further research is required due to limitations of this study. The study was of only one cohort sample, the survey was only implemented with one sample setting, and sample size was relatively small. The study could benefit by conducting the survey over many years to gather data on a larger and more diverse population. This study could also benefit by conducting the survey before and after the students received clinical and didactic learning in order to analyze differences. A qualitative study on clinical experiences would have aided this study by giving insight into what experiences students were exposed to. There was also no background information obtained from the students, which may have posed as a limitation to this study.

References

- Aebersold, M., (2018). Simulation-Based Learning: No Longer a Novelty in Undergraduate Education. *Online Journal of Issues in Nursing, 23(2).* doi: 0.3912/OJIN.Vol23No02PPT39
- Allred, K., Gerardi, N. (2017). Computer simulation for pain management education: A pilot study. *American Society for Pain Management Nursing*, *18*(5), 278-287. doi: 10.1016/j.pmn.2017.05.004
- AlThiga, H., Mohidin, H., Park, Y. S., Tekian, A., (2017). Preparing for Practice: Nurse Intern and Faculty Perceptions on Clinical Experiences. *Medical Teacher*, *34(1)*, 55-62.

 Retrieved from http://dx.doi.org.ezproxy.emich.edu/10.1080/0142159X.2016.1254739
- Bandura, A. (1999). Social cognitive theory: An agentic perspective. *Asian Journal of Social Psychology*, *2*, 21–41. Retrieved from https://www.uky.edu/~eushe2/
 Bandura/Bandura1999AJSP.pdf
- Bohren, M. A., Hofmeyr, G. J., Sakala, C., Fukuzawa R. K., Cuthbert, A. (2017). Continuous support for women during childbirth (review). *Cochrane Database of Systematic Reviews*, 7. doi: 10.1002/14651858.CD003766.pub6
- Brown, S. T., Douglas, C., Flood, L. P., (2001). Women's evaluation of intrapartum nonpharmacological pain relief methods used during labor. *The Journal of Perinatal Education*, *10(3)*. Retrieved from:
 - https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1595076/pdf/JPE100001.pdf
- Davies, B. L., Hodnett, E., (2002). Labor Support: Nurses' Self-Efficacy and Views About

- Factors Influencing Implementation. *Journal of Obstetric, Gynecologic, & Neonatal Nursing, 31 (1),* 48-56. Retrieved from https://www.jognn.org/article/S0884-2175(15)33948-4/pdf
- Fluharty, L., Hayes, A. S., Milgrom, L., Malarney, K., Smith, D., Reklau, M. A., Jerries, P., McNelis, A. M. (2012). A multisite, multi–academic track evaluation of end-of-life simulation for nursing education. *Clinical Simulation in Nursing*, 8(4), e135-e143. doi:10.1016/j.ecns.2010.08.003
- Hayden, J. K., Smiley, R. A., Alexander, M., Kardong-Edgren, S., & Jeffries, P. R. (2014). Supplement: The NCSBN National Simulation Study: A longitudinal, randomized, controlled study replacing clinical hours with simulation in prelicensure nursing education. *Journal of Nursing Regulation*, *5*(2), C1-S64. Retrieved from https://www.ncsbn.org/JNR_Simulation_Supplement.pdf
- Lawrence, A., Lewis L., Hofmeyr G. J., Styles, C. (2013). Maternal positions and mobility during first stage labour (review). *Cochrane Database of Systematic Reviews, 10.* doi: 10.1002/14651858.CD003934.pub4
- Lliadou, M. (2009). Labour pain and pharmacological pain relief practice points. *Health Science Journal*, *3* (4), 197-201. Retrieved from: http://www.hsj.gr/medicine/labour-pain-and-pharmacological-pain-relief-practice-points.pdf
- Marcy, V. (2001). Adult learning styles: How the VARK©learning style inventory can be used to improve student learning. *Journal of the Association of Physician Assistant Programs*, *12(2)*, 1-5. Retrieved from: http://vark-learn.com/wp-content/uploads/2014/08/VanessaMarcy.pdf

- Melzack, R., Wall, P. D., (1965). Pain mechanisms: A new theory. *Science*, *150* (3699), 971-979. doi: 10.1126/science.150.3699.971
- Nattah, F. M., Abbas, W. A., (2015). Assessment of level of pain and its relation with breathing exercise in the first stage of labour among primi mothers at Hilla Teaching Hospital. *European Journal of Scientific Research*, 135(2). Retrieved from: https://www.researchgate.net/profile/ Wafa_Abbas3/publication/
 308801805_Assessment_of_Level_of_Pain_and_its_Relation_with_Breathing_Exercise_in_the_First_Stage_of_Labour_among_Primi_Mothers_at_Hilla_Teaching_Hospital/link s/57f35ee608ae280dd0b56bf9/Assessment-of-Level-of-Pain-and-its-Relation-with-Breat hing-Exercise-in-the-First-Stage-of-Labour-among-Primi-Mothers-at-Hilla-Teaching-Hospital.pdf
- Oktriani, T., Ermawati, Bachtiar, H., (2018). The difference of pain labour level with counter pressure and abdominal lifting on primigravida in active phase of first stage labor. *Journal of Midwifery, 3(2).* doi: 10.25077/jom.3.2.45-52.2018
- Pike G. R. (1991). The effects of background, coursework, and involvement on students' grades and satisfaction. *Research in Higher Education*. *32(1)*, 15-16. doi: 10.1007/BF00992830
- Shiffrin, R. M., & Schneider, W. (1977). Controlled and automatic human information processing: II. Perceptual learning, automatic attending and a general theory.

 *Psychological Review, 84(2), 127-190. Retrieved from http://dx.doi.org/10.1037/0033-295X.84.2.127
- VARK: Learn Limited (2019). The VARK Modalities. Retrieved from

http://vark-learn.com/introduction-to-vark/the-vark-modalities/

Vygotskij, L. S., & Cole, M. (1981). *Mind in society: The development of higher**psychological processes. Cambridge, MA: Harvard Univ. Press. Retrieved from
https://books.google.com/books?hl=en&lr=&id=Irq913IEZ1QC&oi=fnd&pg=PR13&ots

=HaEny1xmqg&sig=ld69428G6GUUsfGRWUZDv-UEYL0#v=onepage&q&f=false

Appendix A

IRB Letter for Survey



University Human Subjects Review Committee

Mar 28, 2019 8:28 PM EDT

Heily Alvelo

Eastern Michigan University, School of Nursing

Re: Exempt - Initial - UHSRC-FY18-19-282 Survey of Nursing Student Confidence in Implementing Comfort Measures with The Laboring Client

Dear Heily Alvelo:

The Eastern Michigan University Human Subjects Review Committee has rendered the decision below for Survey of Nursing Student Confidence in Implementing Comfort Measures with The Laboring Client. You may begin your research.

Decision: Exempt

Selected Category: Category 2.(i). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording).

The information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects.

Renewals: Exempt studies do not need to be renewed. When the project is completed, please contact human.subjects@emich.edu.

Modifications: Any plan to alter the study design or any study documents must be reviewed to determine if the Exempt decision changes. You must submit a modification request application in <u>Cayuse IRB</u> and await a decision prior to implementation.

Problems: Any deviations from the study protocol, unanticipated problems, adverse events, subject complaints, or other problems that may affect the risk to human subjects must be reported to the UHSRC. Complete an incident report in Cayuse IRB.

Follow-up: Please contact the UHSRC when your project is complete.

Please contact human.subjects@emich.edu with any questions or concerns.

Sincerely,

Eastern Michigan University Human Subjects Review Committee

Appendix B Survey Tool Administered to Students

Self-Efficacy Labor Support 11/25/19, 9:49 AM

Self-Efficacy Labor Support

Consent Form

Project Title: Survey of Nursing Student Confidence in Implementing Comfort Measures with The Laboring Client

Principal Investigator: Heily Alvelo, Undergraduate Student Faculty Advisor: Dr. Holly Hopkins, Professor of Nursing

Purpose: The purpose of this project is to assess nursing students' self-efficacy for providing labor.

Study Procedures: Participation in this study involves completing an online survey. It should take between 5 and 10 minutes to complete the survey.

Types of Data Collected: We will ask questions about how confident and comfortable you feel implementing certain techniques with the laboring client.

Risks: The primary risk of participation in this study is a potential loss of confidentiality. You do not have to answer any questions that make you uncomfortable or that you do not want to answer.

Benefits: You will not directly benefit from participating in this research. Benefits to society include understanding how clinical experiences in the childbearing families clinical shape self-efficacy.

Confidentiality: We will keep your information confidential by not taking personal identifiers such as your name. Your information will be stored in a password-protected computer file. We may store your information indefinitely so that we can use your information for future studies.

The principal investigator and the research team will have access to the information you provide for research purposes only. We may share your information with other researchers outside of Eastern Michigan University. If we share your information, we will remove any and all identifiable information so that you cannot reasonably be identified. De-identified information will be transferred by email.

The results of this research may be published or used for teaching. Identifiable information will not be used for these purposes.

Compensation: There will be no compensation for your participation in this survey.

Contact Information: If you have any questions about the research, you can contact the Principal Investigator, Heily Alvelo at halvelo@emich.edu. You can also contact Heily's adviser, Dr. Holly Hopkins, at hhopkins3@emich.edu.

For questions about your rights as a research subject, you can contact the Eastern Michigan University Office of Research Compliance at human.subjects@emich.edu or by phone at 734-487-3090.

Voluntary participation

Participation in this research study is your choice. You may refuse to participate at any time, even after signing this form, with no penalty or loss of benefits to which you are otherwise entitled. You may choose to leave the study at any time with no loss of benefits to which you are otherwise entitled. If you leave the study, the information you provided will be kept confidential. You can withdraw your consent by emailing the Principal Investigator listed above.

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Statement of Consent

I have read this form. I have had an opportunity to ask questions and am satisfied with the answers I received. I click "next" below to indicate my consent to participate in this research study.

Self-Efficacy Labor Support

The purpose of this survey is to assess nursing students' self-efficacy for providing labor support.

How confident are you in your ability to use each of the following techniques for providing support to women in labor?

Strongly agree indicates that you strongly agree that you feel confident in the item presented. Strongly disagree indicates that you strongly disagree that you feel confident in the item presented.

| 1. | Review and discuss a woman's preferences (birth plans)? Mark only one oval. | | | | | | | | |
|----|------------------------------------------------------------------------------|---------|----------|---------|-----|---|---|---|----------------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| | Strongly Disagree | | | | | | | | Strongly Agree |
| | Suggest alternate p Mark only one oval. | osition | ıs/move | ements? | • | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| | Strongly Disagree | | | | | | | | Strongly Agree |
| | Provide specific ba Mark only one oval. | ckache | relief n | neasure | es? | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| | Strongly Disagree | | | | | | | | Strongly Agree |

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| . Know what to say Mark only one oval. | | for reas | suranc | e? | | | | | | |
|----------------------------------------------------------------------|-------------------------------------------------------------------|------------|------------|--------|---|------------|---|----------------|--|--|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | |
| Strongly Disagree | | \bigcirc | \bigcirc | | | | | Strongly Agree | | |
| Be continually pre Mark only one oval. | | h a wor | nan in I | abor? | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | |
| Strongly Disagree | | | | | | | | Strongly Agree | | |
| Assist partner/frie Mark only one oval. | 100 | oviding | labors | upport | ? | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | |
| Strongly Disagree | | \bigcirc | \bigcirc | | | \bigcirc | | Strongly Agree | | |
| | Assist with breathing/relaxation techniques? Mark only one oval. | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | |
| Strongly Disagree | | | | | | | | Strongly Agree | | |
| Explain what is happening about labor progress? Mark only one oval. | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | |
| Strongly Disagree | | | \bigcirc | | | | | Strongly Agree | | |
| Deal with distress and panic situations? Mark only one oval. | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | | |
| Strongly Disagree | | | | | | | | Strongly Agree | | |

Self-Efficacy Labor Support

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10. Use non pharmacological pain relief methods? Mark only one oval. 7 1 2 3 5 6 Strongly Disagree Strongly Agree 11. Accept a woman's behavior without judgement, even when unusual/upsetting? Mark only one oval. 1 2 3 6 7 Strongly Disagree Strongly Agree Please rate your skill in the following labor support techniques. Strongly agree indicated that you strongly agree that you are confident in the skill. Strongly Disagree indicates that you strongly disagree that you are confident in the skill. 12. Physical comfort measures (backache relief measures, non pharmacological pain relief) Mark only one oval. 7 Strongly Disagree Strongly Agree 13. Emotional support (presence, coping mechanisms for distress and panic situations) Mark only one oval. 7 Strongly Disagree Strongly Agree 14. Information/advice (labor progress) Mark only one oval. 7 Strongly Disagree Strongly Agree