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Independent Study Projects

Title

Implementing bilingual labor & delivery education modules for the centering pregnancy curriculum at Chula Vista Medical Plaza

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Publication Date

2019

Independent Study Project Report
Category: Community Service & Leadership
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Title: Implementing Bilingual Labor & Delivery Education Modules for the CenteringPregnancy Curriculum at Chula Vista Medical Plaza

Rational for the Project:

The aim of this project was to create supplemental education modules to assist in the labor and delivery sessions, Sessions 5 and 6, of the CenteringPregnancy curriculum hosted at Chula Vista Medical Plaza in order to allow participants that are monolingual in Spanish to better understand the processes of labor and delivery. The activities already in place from the curriculum made assumptions about patient understandings of their own anatomy, what uterine contractions are, and stages of labor. By designing education tools that were more visual, barriers in language that prevent understanding of educational content could be overcome. Most importantly, participants could feel empowered in their pregnancies by understanding the physiological changes their bodies would experience during labor and delivery.

Studies of Hispanic women within the CenteringPregnancy model have found that they have a greater likelihood of reaching adequate prenatal care and higher odds of having a vaginal birth compared to Hispanic women receiving individual care. The CenteringPregnancy model, specifically among Hispanic mothers, has been shown to yield a higher degree of patient satisfaction. It is a model of prenatal care that has been found to be an acceptable approach for Hispanic women. In one study of the largest examination to date of CenteringPregnancy within an exclusively Hispanic sample of women, it was found that the women receiving care through this model had a smaller percentage of preterm births than Hispanic women receiving traditional prenatal care. By ensuring the labor and delivery session activities are able to be fully comprehended by Hispanic women, their pregnancy outcomes will improve and they will feel more comfortable during delivery.

There have been ongoing discussions to update the session materials of the CenteringPregnancy curriculum at Chula Vista Medical Plaza as many of these activities do not translate well Spanish-speaking patients. As the residents in the Family Medicine program have not had ample time to develop new activities, in reviewing all 10 sessions of the CenteringPregnancy curriculum, it became apparent that the labor and delivery sessions would be the most important to create supplemental activities that would assist in participants better understanding the educational content. It is imperative that participants understand the processes of labor and delivery as it is the pinnacle of their pregnancy and the point at which there is the most interaction with physicians. It is the job of physicians to empower patients in taking charge of their own healthcare. The first step to this place of empowerment is grasp of knowledge.

Project Objectives:

- A. Create supplemental education modules to pair with the CenteringPregnancy curriculum that would allow participants that are monolingual in Spanish as well as English-speaking participants to better understand the biological processes of labor and delivery
- B. Implement the education modules to Sessions 5 and 6 of CenteringPregnancy to assess success of use of the new activities to breach language barriers in order to achieve participant understanding of the educational content of the session

- C. Alter modules based on CenteringPregnancy participant and facilitator feedback to best fit the group's needs
- D. Create a written report about the education module creation, implementation, and reception by CenteringPregnancy participants and facilitators
- E. Teach facilitators to use modules after project is completed to continue success in education of CenteringPregnancy participants in understanding labor and delivery

Methods:

1. Engaging with session participants: CenteringPregnancy sessions are held monthly at Chula Vista Medical Plaza for a minimum of 90 minutes and are facilitated by current residents of the Family Medicine Residency Program at Scripps Mercy Hospital Chula Vista. Facilitators use the CenteringPregnancy Facilitator's Guide while women participating in the sessions follow each session using the participant's guide called the CenteringPregnancy Notebook.
2. Reviewing CenteringPregnancy sessions: To determine where Spanish-speaking patients could best be assisted with educational content activity supplements, an appropriate session was chosen.
 1. Session 5 reviews comfort measures for the labor process, knowing the signs of being in labor, understanding the stages of labor, medications for comfort in the labor process, expectations for how to interact with a birth facility, and addressing early labor.
 2. Session 6 reviews labor decisions, communication in labor, being an active participant in choices about the labor process, and understanding the body with regard to going through labor and birth.
3. Creating the education modules: As the student involved with this project had an artistic background and strongly believed in using visual aids to guide a discussion about participants, two canvases were painted using acrylic paint depicting important aspects of the female reproductive system. The first canvas depicted internal and external female anatomy that could be used to describe the physical changes that occur during pregnancy and delivery. The second canvas depicts the stages of cervical dilation with accompanying foods for each dilation size in order to allow participants to easily grasp the purpose of cervical checks during delivery. Per an activity suggested by an attending physician and developed by another women's health practitioner, using party balloons and ping pong balls, a model is created that demonstrates uterine contractions causing cervical effacement and dilation, which lead to birth. These three modules all have strong visual components that allow the participants to understand and connect verbal explanations to anatomical changes during labor and delivery.
4. Piloting the education modules: The two canvases and balloon model were implemented for Session 5 of the CenteringPregnancy curriculum, as Session 6's core activity did not revolve around stages of labor. With the initial implementation of the three modules, feedback from participants and facilitators was noted with regard to how the three modules helped core understanding of labor and delivery, how accessible they were to participants in facilitating an educational conversation, how they paired with the pre-planned CenteringPregnancy curriculum, and how participants monolingual in Spanish responded to more visual guidance of educational objectives.
5. Reimplementing altered education modules: Based on the verbal feedback from participants and facilitators as well as the facilitator evaluation form after implementing the new education modules for Session 5, the facilitation using the newly designed activities were implemented in a second session with appropriate alterations in facilitation. In this second implementation of the modules, the core activity regarding stages of labor in Session 5 was not performed at all and the 3 activities were used in isolation to help facilitate discussion regarding stages of labor and biological changes during pregnancy, labor, and delivery.

6. Providing facilitators with resources: The facilitators of CenteringPregnancy will then be provided with a facilitation guide to continue to teach the newly designed education modules for future CenteringPregnancy sessions.

Achievements:

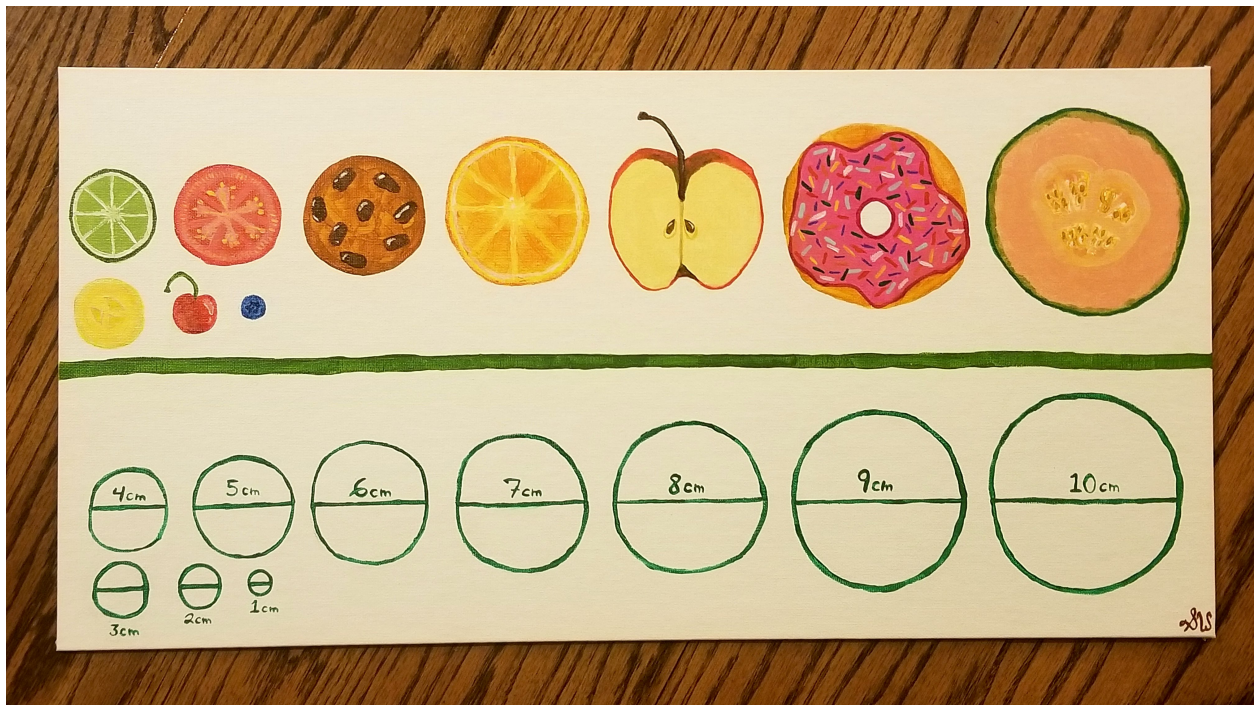
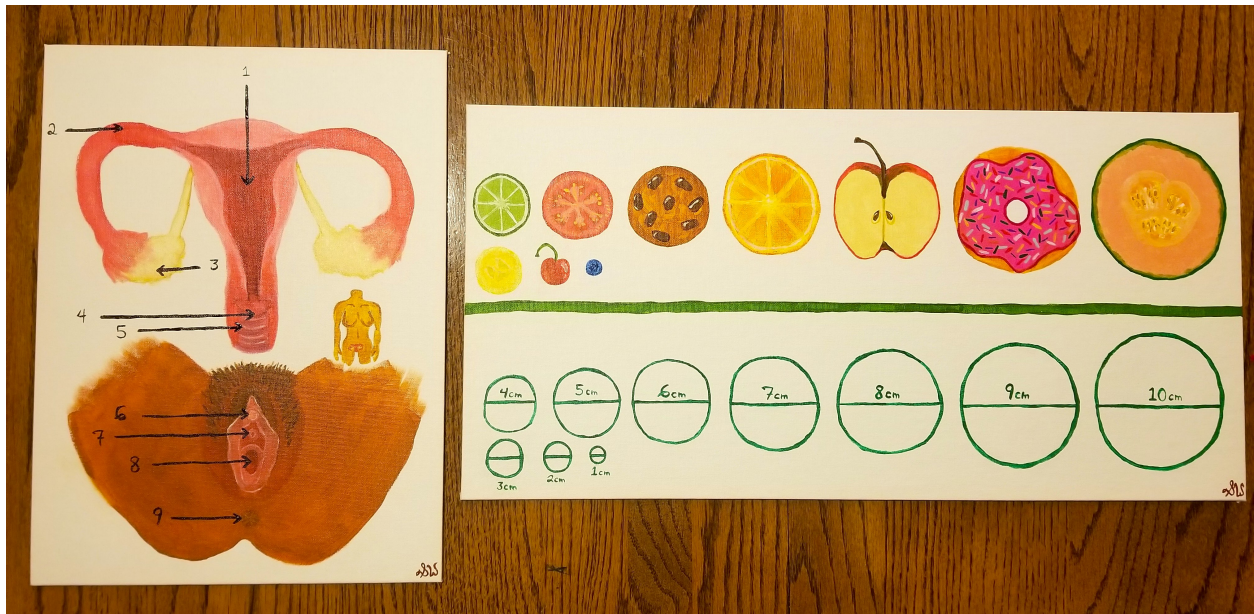
With this project, the student wanted to follow the ISP curriculum requirements while focusing on their goal as a family medicine physician to engage with an underserved community in order to empower patients through education of their own bodies and to improve health equity while being true to their passions of human connection and creativity. It was a struggle initially to think of a project that would not be based on combing through a data base, passing out and analyzing a survey, or staying within a hospital setting. The aim was to reach a community directly that has impacted the student's medical school career. As an active member of the UCSD Student Run Free-Clinic Project, the student frequently worked with the clinic's primary patient populous of underserved immigrant patients with low access to healthcare. In having a particular interest in women's health, obstetrics, and maternal-child health, the student wanted to find an ISP that would combine these interests, empower underserved patients through education, and help prepare for a career in community-based family medicine.

A family medicine faculty member referred the student to Dr. Mary Moya as she is an attending physician for the Family Medicine Residency Program at Scripps Mercy Hospital Chula Vista and has a particular focus on women's health. When Dr. Moya met with the student to discuss ISP options, she stated that though the CenteringPregnancy curriculum was wonderful as prenatal care model, it created some difficulty with patients monolingual in Spanish due to the nature of the activities. For example, the Session 5 Labor and Delivery portion of the curriculum had flashcards that included photos telling the patient to be a "lioness" during delivery, but this concept does not translate in Spanish. It was difficult to create education tools that would foster discussion rather than create a passive patient interaction environment.

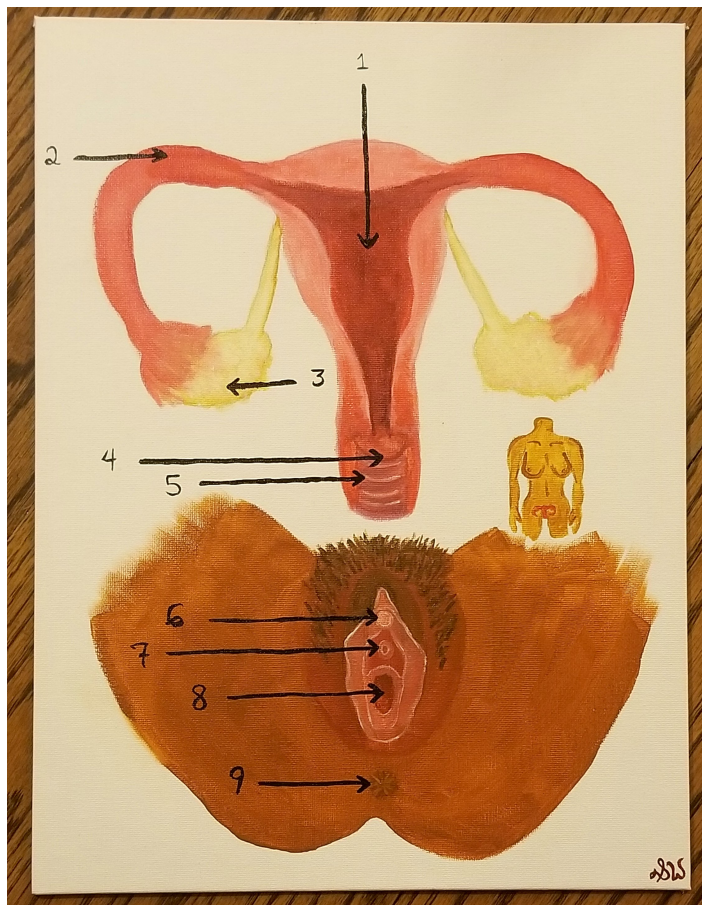
The focus of CenteringPregnancy is to have educational discussions with facilitative tools rather than to be a teaching framework. Through various conversations with the residency program director, Dr. McKennett, Dr. Moya, and Dr. Rodriguez, the student found a way to use their passion for art to create these tools. Another attending physician suggested the use of a visual model of labor and delivery using a balloon that was first designed by a midwife to solidify the educational points of the session. The student decided to paint by hand two acrylic canvases and use the third physical model to help bridge the language barrier presented in Session 5 of the CenteringPregnancy curriculum. By being physically present to implement the tools first hand at the CenteringPregnancy sessions, the student could see exactly how as a family physician interested in women's health to educate patients, receive feedback, and adjust for better future patient interaction. Patient empowerment in underserved communities of color through women's and maternal-child health is the student's end goal as a family physician. This ISP allowed the student to explore that exact arena through facilitating educational discussions in group prenatal care.

Ultimately, the aim of this project in creating supplemental education modules to assist in the facilitation of discussion regarding labor and delivery, particularly with women monolingual in Spanish, was achieved. By creating visual aids to supplement the "Stages of Labor" activity of Session 5 or to use these aids in isolation in order for group participants to better understand the physiologic processes of labor and delivery, patients monolingual in Spanish could firmly grasp the educational content of the session. Visual aids are able to transcend language and are helpful to participants who don't fundamentally understand what parts of their anatomy are involved in labor and delivery and how these physical changes relate to symptoms of pregnancy.

Supplemental Images:







Facilitator Process Evaluation

Facilitator's Names	Date	Session #	
Dr. Serpas, Dr. Sabrina Owens	02/11/19	5	
Number of Participants:	Moms:	Support Persons:	
Environment & Session Activities	Poor	Fair	Good
On-time start & finish			✓
Women measure & record weights for themselves			✓
Women measure & record their own blood pressure (if applicable)			✓
Exams completed within the first 30 to 40 minutes of the session			✓
Environment is private and comfortable			✓
Quality of Group Dynamics & Facilitation	Poor	Fair	Good
Core content discussed with a facilitative approach		✓	
Sharing of information, ideas, feelings, or experiences among participants		✓	
Group members demonstrate understanding of educational content			✓
Session felt more like a "peer group" than a "classroom"			✓
How psychologically present you felt this session			✓

Self-Assessment Sheets used

- 1 How Am I Doing?
- 2 Comfort During Labor
- 3

Comments It was more effective for discussion using the anatomy diagram to have group participants take turns discussing anatomy instead of one member naming all parts. Discussing biological pregnancy formation and implantation was less useful. The cervical dilation board is better used in conjunction with the "stages of labor" activity when discussing contractions. Some participants may not understand what contractions are. The balloon activity made the most educational impact after discussing contractions.

Comments 02/11/19:

It was more effective for discussion using the anatomy diagram to have group participants take turns discussing anatomy instead of one member naming all parts. Discussing biological pregnancy formation and implantation was less useful. The cervical dilation board is better used in conjunction with the "stages of labor" activity when discussing contractions. Some participants may not understand what contractions are. The balloon activity made the most educational impact after discussing contractions.

Comments 03/12/19:

Based on adjustments from session 5 02/11/19, we allowed all group members to take turns naming structures on the anatomy diagram, then used the external anatomy to discuss perineal tears. We did not use the "stages of labor" activity. Instead we used the cervical dilation board to discuss what sizes would admit a participant, reasons to go to the hospital in the third trimester, pushing, and delivery concerns. Finishing with the balloon contraction activity was still a good wrap up.

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Facilitator Process Evaluation

Use this tool after each group session in your first year, and after at least three groups per series thereafter.

Facilitator Name(s):	Date	Session #	
Dr. McKennett, Dr. Amanda Dappen	03/12/19	5	
Number of Participants:	Moms:	Support People:	
Environment & Session Activities	Poor	Fair	Good
On-time start & finish	✓		
Women measure & record weights for themselves			✓
Women measure & record their own blood pressure (if applicable)			✓
Exams completed within the first 30 to 40 minutes of the session	✓		
Environment is private and comfortable			✓
Quality of Group Dynamics & Facilitation	Poor	Fair	Good
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Sharing of information, ideas, feelings, or experiences among participants		✓	
Group members demonstrate understanding of educational content			✓
Session felt more like a "peer group" than a "classroom"			✓
How psychologically present you felt this session			✓

Self-Assessment Sheets used

- 1
- 2
- 3

As labor & delivery tour was conducted, did not have time to review self-assessment sheets

Comments: Based on adjustments from session 5 02/11/19, we allowed all group members to take turns naming structures on the anatomy diagram, then used the external anatomy to discuss perineal tears. We did not use the "stages of labor" activity. Instead we used the cervical dilation board to discuss what sizes would admit a participant, reasons to go to the hospital in the third trimester, pushing, and delivery concerns. Finishing with the balloon contraction activity was still a good wrap up.

Facilitation Guide for Residents of the Family Medicine Residency Program at Scripps Mercy Hospital Chula Vista- Session 5 Activities:

The two art canvases as well as the balloons with ping pong balls were intended to be activities used in Session 5 of the CenteringPregnancy curriculum to help participants monolingual in Spanish to better understand the biological process of labor and delivery, as the activities in the session are not very culturally competent. However, if facilitators should find that these visual aids and activities are useful for group participants to understand topics presented in a different session, they should be used accordingly. If the tour of labor and delivery should occur during Session 5, these activities may also be used for Session 6. All three of these activities may be used or only the ones seeming appropriate for the group. Overall, the balloon contraction activity should be used at the very end of the session once all other educational points have been covered.

1) Anatomy: Internal and External Female Reproductive System

Group participants can take turns naming anatomical structures in numerical order. This can also be an opportunity to discuss a normal intrauterine pregnancy vs an ectopic pregnancy. With the external diagram, assessing the understanding of the “three holes” and changes during pregnancy eg: increased urination, vulvar and vaginal sensitivity, other experiences of group participants, can be discussed here. With the external pelvic diagram, perineal tears and where they occur during delivery as well as how to repair them may be demonstrated. Group members who have had episiotomies or tear repairs may share their experiences or concerns.

2) Cervical Dilation Model: Stages of Labor

This model can be used in conjunction with the “Stages of Labor” activity to describe cervical progression during labor. The foods are there to assist in creating a mental picture of dilation sizes. If using the “Stages of Labor” activity, talking about what cervical dilation sizes are prior to active labor and pushing as well as types of contractions that occur at a particular cervical dilation size works well together. If not using the “Stage of Labor” activity, the dilation sizes can be used to describe at what size a patient is admitted to labor and delivery if they arrive at the hospital, what sizes they are sent home from labor and delivery, and absolute reasons to come to the labor and delivery from home. Participants may be interested in discussing alarm signs such as bleeding or changes in vaginal fluid. If participants are not informed about contractions then facilitating a conversation regarding contractions can also occur while using the board. A major point of empowerment for participants is to also use the board to initiate a discussion regarding cervical checks that occur while on labor and delivery and what patients should do to relax when these checks are done. Assessing understanding of why cervical checks are done and coming back to the foods may be useful in helping participants keep track of changes during labor.

3) Balloon Model of Uterine Contractions, Cervical Effacement and Dilation, and Birth

After the anatomy and cervical dilation discussions occur, if the “Stages of Labor” activity is not used, prior to doing this activity it is important to assess participants understanding of contractions, labor, and delivery. If there are gaps in knowledge with regard to the purpose of contractions in delivery, this activity will help facilitate that understanding. This activity requires that each participant be given a balloon and ping pong ball. The balloon acts as the uterus while the balloon neck acts as the cervix. The ping pong ball represents the pregnancy.

1. Take a single balloon, do not inflate it.
2. Use two fingers to spread open the neck of the balloon wide enough to place a ping pong ball inside of the balloon. Scrunching the neck while widening will help make a short pocket for the ball. Assist participants in doing so as this step may be challenging for some.

3. Inflate the balloon with the ping pong ball inside, about a quarter to a half of fully inflated size. Allow the ping pong ball to fall to the bottom of the neck of the balloon when the balloon is upright, letting the ball act as a vacuum and trap the air inside. Do not tie off the bottom of the balloon.
4. Model Braxton-Hicks contractions as ineffective contractions of labor or as “practice” contractions, demonstrating that random squeezing at points on the balloon does not cause the ball to move.
5. Model uterine contractions of labor by starting strong continuous squeezing from the top most surface of the balloon and down towards the neck containing the ball. With proper squeezing, the bottom of the balloon should begin to elongate and thin, mirroring cervical effacement and dilation.
6. Continue the strong “uterine” contractions until the ping pong ball is expelled from the base of the balloon. “Congratulations” may be stated. The birth has occurred.
7. Assess for participant understanding of how the activity modeled the process of labor and delivery.

This model of effacement and dilation was initially developed by Teri Shilling from a childbirth class but demonstrated on YouTube by Liz Chalmers via the following link:
<https://www.youtube.com/watch?v=URyEZusnjBI>