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### Effects of Waterbirth on Laboring Women

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# Effects of Waterbirth on Laboring Women



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## Abstract

**Objective:** To explore the differences between waterbirth and the overall reduction of pain during labor.

**Design:** Quasi-experimental, Exploratory

**Setting:** Hays Medical Center in rural, western Kansas

**Participants:** Laboring mothers at Hays Medical Center, Center for Women's Health

**Results/Conclusions:** Pending results and data collection

## Introduction

Considering that babies spend nine months floating in the warm and wet comfort of their mother's womb, a water birth is a natural way of coming into the world. However, traditional labor remains the most common method of childbirth. McCauley et al (2019) states, half of all healthcare providers consider labor pain as 'natural' and necessary for birth. Although waterbirth is gaining popularity, many still question the risks and benefits of this process and if it is truly the safest, least painful method of delivery. According to Cluett (2018), evidence indicates that laboring and giving birth in water is emerging as a means of facilitating women to have a greater sense of control and comfort during childbirth. The buoyancy that laboring in water offers, paired with the contained environment, allows the woman to feel calm and more in control during labor, therefore reducing the woman's pain perception and the likelihood of requiring interventions such as labor augmentation, and operative birth (Cluett et al., 2018). Finding a way to decrease the pain and enhance overall functionality of giving birth may lead to a better birth experience and improve long term outcomes for both the mother and infant. This study will explore how water birth compared to natural birth impacts the pain perception of laboring women.

### Purpose

To determine whether birthing in water can decrease the pain that a laboring mother experiences as opposed to natural birth.



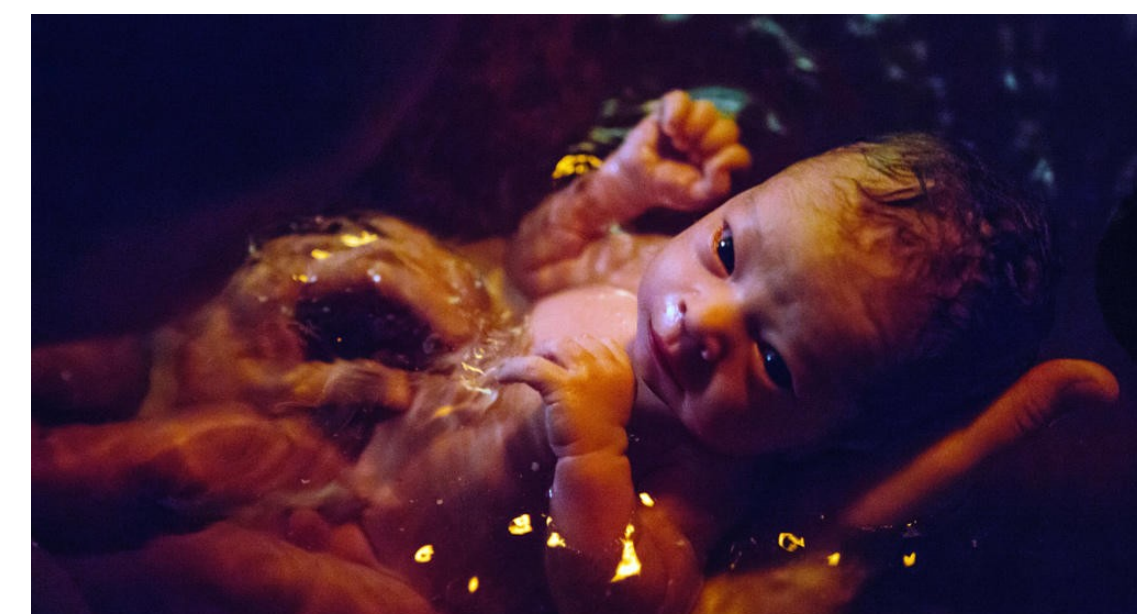
<https://midwiferytoday.com/tag/waterbirth/>

### Key Terms

**Water birth:** Neonate is born under the water (Cluett et al., 2018)

**Natural birth:** Vaginal delivery with no epidural (Cluett et al., 2018)

**Labor Pain:** Discomfort caused by contractions of the muscles of the uterus and by pressure on the cervix (Ben-Joseph, 2018)



(<https://www.babycentre.co.uk/a542003/the-history-of-water-birth>)

## Framework

The theoretical framework for this study is based on Kolcaba's Theory of Holistic Comfort (Koehn, 2015). This theory is based on alternative and complementary therapies that enhance the positive outcome of the childbirth experience (Koehn, 2015). Utilizing Kolcaba's theory, patients will have more comfort and less pain due to the soothing environment that allows women to feel calm and more in control during labor.

## Methodology

### Research Design/Interventions

**Research Design:** Quasi-Experimental, Exploratory

**IV:** Waterbirth

**DV:** Perceived laboring pain on 1 to 10 Visual Analog Scale (VAS)

**Interventions:** Mothers will choose between natural delivery and waterbirth after being informed of the study and consent is given. Mothers selecting natural delivery will not obtain an epidural injection to control pain and will deliver without the aid of water. Those selecting waterbirth will also not obtain an epidural or other radical means of analgesia and will have a pool of water to sit in as they labor.

### Proposed Research Question:

Does waterbirth decrease pain in laboring women compared to natural birth?

### Literature Sources

Research suggest that waterbirth can be clinically effective as a means to reduce the intensity of pain during normal physiological labor and increase women's satisfaction with their birth experiences (Phillips, 2014). According to Lewis, just under half (47%; 139 of 296) of all women surveyed, 38% (35 of 93) of women who did and 52% (105 of 203) of women who did not birth in water, chose a waterbirth as they perceived it would provide them with pain relief in labor.

### Sample

Women choosing waterbirth and women choosing natural birth at Hays Medical Center, Center for Women's Health

## Ethical Considerations

Seeking IRB Full Review at Hays Medical Center, Fort Hays State Nursing Department, Fort Hays State University.

## Data Collection

N= 100

n= 50 mothers selecting waterbirth with no radical analgesia during labor

n= 50 mothers selecting natural birth with no radical analgesia during labor

100 mothers fulfilling inclusion criteria will be enrolled from Hays Medical Center, Center for Women's Health unit. A written consent will be obtained. Participants will then select her preferred method of labor and be placed in one of the two groups, waterbirth, or natural birth. The pain levels experienced in each of the methods of labor will be measured through the implementation of a written labor pain survey detailing their personal experience and feelings throughout the process, along with physical tests such as; duration of 1st, 2<sup>nd</sup>, and 3<sup>rd</sup> stages of labor, induction and episiotomy requirements, perineal trauma, Apgar scores, NICU requirements, and Visual Analog Scale (VAS) scores (Mollamahmutoğlu, et al, 2012).



<https://www.nicolebertrandphotography.com/charlotte-birth-photographer>

## Results/Findings

### Projected Data Analysis Method

An independent t-test will be used to compare mother's perception of pain, via the VAS, while differentiating between waterbirth and natural birth during the 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> stages of labor.

### Literature Findings

The literature results showed that waterbirth laboring women had less pain compared to natural laboring women. According to literature, the 2<sup>nd</sup> and 3<sup>rd</sup> stages of labor were shortest in duration for patients having waterbirth compared with conventional vaginal delivery. Patients having waterbirth had less requirement for induction and episiotomy but had more perineal laceration. All women having waterbirths had reduced analgesia requirements and had lower scores on VAS. There was no difference in terms of NICU admission between the groups and Apgar scores were comparable in both groups (Mollamahmutoğlu et al, 2012). Another study also collected and analyzed the data of randomized controlled trials on water immersion during labor, and the results showed that water immersion during labor can alleviate labor pain and reduce the use of analgesics as well (Cluett et al., 2018).

## Discussion

### Implications For Nursing

Understanding that waterbirth as a method of delivery is found to positively impact the pain levels experienced by the participant, further encouragement should be implemented when discussing laboring methods upon discovery of pregnancy. In addition, nursing staff and midwives should be updated with laboring options to inform mothers.



<https://www.goodtoknow.co.uk/family/water-birth-79850>

## Conclusion

Pending results and data collection. Other studies have found that implementing waterbirth has positively influenced the laboring mother by decreasing pain and lowering the need of analgesics. For future research, it is recommended that this study be conducted on a larger scale in more diverse, urban Centers for Women's Health, so that these findings can be applied to a greater population

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