

University of New Hampshire

University of New Hampshire Scholars' Repository

Honors Theses and Capstones

Student Scholarship

Spring 2022

A Comparison of Perceptions of Labor Support Before and During the COVID-19 Pandemic

Sarah Grace Krein

University of New Hampshire, Durham

Follow this and additional works at: <https://scholars.unh.edu/honors>



Part of the [Maternal, Child Health and Neonatal Nursing Commons](#)

Recommended Citation

Krein, Sarah Grace, "A Comparison of Perceptions of Labor Support Before and During the COVID-19 Pandemic" (2022). *Honors Theses and Capstones*. 639.

<https://scholars.unh.edu/honors/639>

This Senior Honors Thesis is brought to you for free and open access by the Student Scholarship at University of New Hampshire Scholars' Repository. It has been accepted for inclusion in Honors Theses and Capstones by an authorized administrator of University of New Hampshire Scholars' Repository. For more information, please contact Scholarly.Communication@unh.edu.

**A Comparison of Perceptions of Labor Support
Before and During the COVID-19 Pandemic**

Sarah Krein

Department of Nursing, University of New Hampshire

NURS 797W: Honors Thesis

Alyssa O'Brien, PhD, RN

Kerry Nolte, PhD, FNP-C

May 18th, 2022

LABOR SUPPORT BEFORE AND DURING COVID-19

Abstract

Satisfaction with the experience of birth has been shown to be affected by the quality of support received by the birthing individual and how closely the experience aligns with their expectations. This is important because the hospital and societal restrictions put in place during the COVID-19 pandemic may have altered individuals' experiences of birth during this time. This is further concerning as there is a known correlation between a negative birth experience and the risk for postpartum depression. This study aimed to identify birthing parents' perceptions of support during birth and how the COVID-19 pandemic impacted support practices. A survey was administered to a convenience sample of 138 adult individuals who were recruited online. Participants who were invited to participate had given birth in the past five years. Consenting participants completed a 12-minute online survey which elicited birth experience and demographic questions based on expert consensus. A comparative, multivariable analysis was conducted using Strata 16 to compare those who gave birth prior to March 2020 and those who gave birth after that time to identify how the COVID-19 pandemic influenced support practices and the experience of birth. A Student's t-test showed Intra-COVID participants felt more supported and heard by their nurse and more supported by their support person. These findings suggest altered healthcare practices and lack of visitors may allow greater focus on birthing individuals, development of the nurse-patient relationship, and promotion of family bonding. The homogeneity of the sample prevents extrapolation of results to the broader population.

LABOR SUPPORT BEFORE AND DURING COVID-19

Background

While rates of home and community births have been growing in recent years, as of 2017, most (98.4%) of birthing individuals in the United States are still giving birth in the hospital setting (National Academies of Sciences, Engineering, and Medicine, 2020). The setting of birth is important because research shows that a negative birth experience may bear some responsibility in the prevalence of postpartum depression (Bell & Andersson, 2016). When reviewing quality of care, patient satisfaction is often a leading indicator of high-quality care. Maternal satisfaction indicators related to relationships and support during the birthing process are such strong indicators of satisfaction that they override most other maternal demographics, including age, education, and socioeconomic status (Hodnett, 2002). In the maternity setting, common reasons for dissatisfaction with the birth process are a disconnect between what individuals expect for their birth and what they actually experience (Webb, et al., 2021), inadequate support during labor (Waldenstrom, 2004), as well as use of obstetrical interventions, delivery via emergency cesarean section, and maternal or newborn complications after birth (Falk et al., 2019).

The public health crisis and subsequent restrictions created by the COVID-19 pandemic brought the issue of birth experience to the forefront because the risk factors for dissatisfaction with birth are centered around an individual's experience not occurring as they had hoped. Hospital policies may have decreased birthing satisfaction given the restrictions many facilities put in place during the height of the pandemic (Arora et al., 2020). Many women giving birth in the hospital setting during this time faced new challenges due to these restrictions, including a reduction in the number of support persons admitted and not being allowed additional visitors (Gutschow & Davis-Floyd, 2021). Studies have shown there may be a relationship between

LABOR SUPPORT BEFORE AND DURING COVID-19

continuous support during labor and delivery and improved childbirth outcomes (Bohren, et al., 2017), as well as improved perceptions of birth experience (Lunda et al., 2018). Therefore, it is important to understand the impact of the pandemic restrictions on the experiences of birthing individuals. This research was guided by the work of Urie Bronfenbrenner and his Ecological Systems Theory of Development (Kilanowski, 2017). This theory describes the interconnected societal and environmental systems that influence the experiences of the individual. It has been adapted to describe the interactions of factors in many systems including health promotion, disease and violence prevention, and promotion of safety in agriculture (Kilanowski, 2017). Based within the Ecological Systems Theory of Development, this research recognizes the birthing individual as sitting at the center of the model, with personal factors such as partner and healthcare support, and broader factors such as societal restrictions and stressors related to the pandemic all influencing the experience of birth.

This study explored the effect of COVID-19 on the perception of support during labor and birth to gain an understanding of the impact of pandemic restrictions on birth experience. This was an important exploration given the connection between negative birth experience and postpartum depression, and the link between support during labor and improved birth experiences. The aims of this study were to identify factors that influenced supportive relationships in the experiences of individuals giving birth, and to identify how the COVID-19 pandemic influenced support practices during the birth experience.

Methodology

This was a quantitative, cross-sectional study that was completed using an online Qualtrics programmed survey. A quantitative design was chosen to understand the relationship between support and the experience of birth. Participants of the study were asked questions to

LABOR SUPPORT BEFORE AND DURING COVID-19

elicit their experience of childbirth, the factors that impacted this experience, and their demographics. These data were split into two groups based on whether the birth of the participant's child took place before or after March 2020, and a comparative analysis was completed to investigate whether the COVID-19 pandemic affected these individuals' experiences of birth.

Study Procedures

Participants were drawn from a convenience sample of birthing parents through word of mouth, social media pages, and flyers posted in public libraries. The recruitment materials all contained a link and/or a QR-code, both of which could be used to access the online Qualtrics survey. The study sample included 138 participants who gave birth to their most recent child in the last five years, were over 18 years of age, and were comfortable reading in English. These criteria for inclusion were based on the goal and scope of this research study. The time frame of five years was chosen to include both groups of participants without going too far back and risking participants' memories being less accurate. The second inclusion criterion, which required participants to be 18 years old or older, was added because minors who are pregnant and having children are outside of societal developmental norms which would have added increased complexity to the scope of the study. Finally, the primary researcher and faculty advisor speak and read English exclusively. Appropriately translating the study into other languages would have increased complexity beyond the scope of this study.

Prior to the commencement of the Qualtrics survey, participants answered questions to ensure their eligibility based on the inclusion criteria and provided informed consent to complete the survey. Participants indicated unwritten consent by selecting an option labeled, "Yes, I would like to participate!" and then clicking the "Next" button. The survey included a series of 26

LABOR SUPPORT BEFORE AND DURING COVID-19

questions developed by the researchers using valid and reliable survey instruments and expert consensus items when instruments could not be identified, followed by 17 questions pertaining to participants' general demographic and birth information and two write-in questions which allowed participants to provide more detail if desired. Prior to data collection, the survey was tested by an expert panel of individuals who had experienced childbirth for content validity. The survey questions asked participants to reflect on their most recent birth experience and what factors most impacted it. The entire survey took participants around 12-minutes to complete.

For the protection of the human subjects who participated in this research, participants were not asked to provide any personally identifiable information, collected data remained anonymous, and the data are presented in aggregate. Answers from the two write-in questions are included in the Results section in paraphrase form, with no answers included verbatim as written by the participant to protect privacy.

Measures

Questionnaire for Assessing Childbirth Experience (QACE) (selected items)

The QACE (Appendix B) was utilized to elicit birth experience (Carquillat et al., 2017). The QACE is a 26-item valid and reliable tool created by Carquillat, Vendittelli, Perneger, and Guittier (2017) developed through review of the literature on what factors influence childbirth experience. To ensure expert validity of the measure, it was reviewed by methodological and clinical experts and changes were made in response to their comments. Additionally, a pilot test of the tool was conducted using a sample of 30 women who provided feedback through think aloud and cognitive interviewing, which was then incorporated, giving the tool face validity. The primary investigator sought and received permission from the authors to use their tool in this

LABOR SUPPORT BEFORE AND DURING COVID-19

study (Appendix A). Two of the 26 QACE questions were not included in the current study. These were “According to you, an ideal birth is a birth...” (relating to method of delivery) and “If you put aside the emotions about the arrival of your baby, for you as a woman, your experience of childbirth has been...” As the purpose of this study focused on the respective effects of support practices and the COVID-19 pandemic on birth experience, the first item was deemed by investigators as less relevant. The second question was deemed by investigators to be less relevant because the focus of this study was on how participants felt regarding their experience, and emotions surrounding the arrival of the baby could have affected their overall feelings related to birth. The question “On the numeric rating scale for pain assessment, how much did you feel pain?” was altered to omit the differentiation between pain during labor and pain during delivery as labor and birth were assessed as a singular experience in this study.

Additional Birth Experience Items

The questions “Did you have a chosen support person with you during labor?” and “Who was your chosen support person?” were added to the first section to gain more information from participants regarding their experience of support given that some healthcare facilities did not allow support persons to be present during labor or birth during the height of the COVID-19 pandemic. The language of the question “The support of my partner helped me” was altered to “The support of my chosen support person helped me” to be inclusive of the variety of individuals who may have supported the participants during their labor and birth.

Additional Survey Items

Month and Year of Most Recent Delivery. The second part of the survey asked a series of demographic questions to elicit information about each participant’s background which were

LABOR SUPPORT BEFORE AND DURING COVID-19

used to compare trends between groups. The question “In what month and year did you give birth to your most recent child?” was the most vital to this study, because it allowed the sample of participants to be divided into the comparison groups for analysis based on whether they gave birth prior to or during the pandemic.

Demographic Items. The questions “Which of the following best describes your gender?” “What is your race?” “What is your ethnicity?” and “What was your age at the time of your most recent child’s birth?” were included to allow for drawing of comparisons between the answers of similar groups of participants to the QACE questions. The questions “What was your household income in the last year?” and “At the time of this birth did you have any other children at home? If so, in what month and year were they born?” served to provide insight into participants socioeconomic status and their overall home life to assess whether these factors also played a role in what affects birth experience.

Birth Experience Items. The questions “What kind of delivery did you experience during your most recent birth?” “Were there any interventions used to help you deliver your baby during this birth?” “How long was your labor during your most recent birth?” and “Did you experience any complications during your most recent birth?” sought to identify trends of whether the circumstances of an individual’s labor and birth affected their birth experience.

Childbirth Class Experience Items. The questions “Have you ever attended any childbirth classes prior to your most recent or any previous births?” “Did you attend the majority of the childbirth classes alone or with your chosen support person?” “Who organized the childbirth classes you attended?” “Did the childbirth classes follow a specific theory?” “How were the childbirth classes held?” and “Did you practice any of the childbirth techniques you

LABOR SUPPORT BEFORE AND DURING COVID-19

learned outside of class?” were utilized to assess trends in how preparation for birth or lack thereof may have related to overall birth experience.

Open-Ended Items. After the additional items, two write-in questions allowed participants to address any factors not covered by the survey that they felt affected their birth experience, and if they gave birth during the pandemic, the participants were invited to describe if and how they felt this affected their experience of birth.

Data Analysis

The data were reviewed and checked for completion. Incomplete surveys were removed from the analysis. Statistical analysis was conducted using Stata 16 and tables were edited using Excel. Basic descriptive statistics were completed to describe the sample demographics, highlighting the differences between the Pre-COVID and Intra-COVID groups of respondents.

A Student’s t-test was completed to determine the differences in labor support experiences for mothers before and during the COVID-19 pandemic. Statistically significant differences are indicated within the table if $p < 0.10$, < 0.05 , or < 0.01 .

Multiple ordinary least squares multivariable regression analyses of birth satisfaction outcomes and the influence of labor support were conducted. These assessed relationships between how participants answered birth satisfaction questions (items 9 through 25, Appendix C) and how they answered influence of labor support questions (items 1 through 8, Appendix C).

Open-ended responses were coded based on themes and reported if five or greater responses indicated similar themes.

LABOR SUPPORT BEFORE AND DURING COVID-19

Results

Table 1 provides the demographic variables for the sample. The mean age was 32 years old. Over 64% made over \$100,000 per year. Nearly 98% were white and almost 99% were non-Hispanic.

Table 1*Participant Demographics*

	Pre-COVID	Intra-COVID
Age	31.8	32.5
Annual Household Income (Percent of Participants)		
Less than \$25,000	3.5%	1.6%
\$25,000-\$34,999	1.7%	3.1%
\$35,000 to \$49,999	6.9%	4.7%
\$50,000-\$74,999	10.3%	3.1%
\$75,000-\$99,999	12.1%	12.5%
\$100,000-\$149,999	32.8%	40.6%
\$150,000 or more	27.6%	29.7%
Prefer not to say	5.2%	4.7%
Race		
Asian	0%	0.0%
Black	0%	1.6%
White	100%	95.3%
Other	0%	3.1%
Ethnicity		
Hispanic or Latinx	0%	1.6%
Non-Hispanic	100%	96.8%
Other	0%	1.6%

Table 2 provides the birth variables for the sample. Over 70% had a vaginal delivery, and approximately 61% of those who had a cesarean section had not scheduled it in advance. Over 50% labored for less than 10 hours. Around 34% had never given birth before and around 70% had attended childbirth classes at some point. Approximately 36% reported birth complications.

LABOR SUPPORT BEFORE AND DURING COVID-19

Table 2*Participant Birth Characteristics*

	Percentage
Type of Birth	
Vaginal	72.5%
Scheduled Cesarean Section	10.9%
Unplanned Cesarean Section	16.7%
Length of Labor	
Less than 5 hours	28.3%
5-10 hours	23.2%
10-15 hours	13.8%
More than 15 hours	26.1%
Did not labor	8.7%
First-Time Parents	33.6%
Attended Childbirth Classes	70.3%
Reported Birth Complications	35.5%

With the Student's t-test, small differences were noted at the 10% level (Table 3), with participants in the Intra-COVID group reporting slightly greater feelings of emotional support by staff and of being able to express their opinions about decisions in their care compared to the Pre-COVID group. Only one outcome had a significant difference at the 5% level, with the Intra-COVID group reporting feeling more supported by their support persons than the Pre-COVID group.

LABOR SUPPORT BEFORE AND DURING COVID-19

Table 3*T-Test of Difference in Means Between Pre-COVID and Intra-COVID Participants*

	Pre-COVID	Intra-COVID	Difference in Means
The staff understood and fulfilled my wishes in a satisfactory manner.	1.397	1.344	0.053 (0.102)
I felt emotionally supported by the staff who took care of me.	1.517	1.297	0.220* (0.112)
The staff kept me informed of what was happening	1.439	1.281	0.157 (0.109)
I felt I could express myself and give my opinion about decisions about me.	1.448	1.266	0.183* (0.108)
My pain was relieved when I asked for it to be.	1.561	1.406	0.155 (.129)
The support person of my choice helped me.	1.397	1.188	0.209** (.099)
*p<0.10, ** p<0.05, ***p<0.01 Standard errors in parentheses			

No direct relationship was found between labor support practices, the COVID-19 pandemic, and birth outcomes in the regression analyses. Based on this, despite the pandemic, mothers felt supported during birth.

Responses to the open-ended question inquiring how participants in the Intra-COVID group felt the pandemic affected their birth experience were reviewed for commonly reported themes. The six themes identified included negative feelings regarding not being allowed visitors, especially other children and mothers; enjoyed not being allowed visitors, citing having more time for bonding and rest; disliked having to wear a mask during labor and/or pushing; unfortunate they were unable to leave their room/unable to move freely during labor; disliked being required to attend prenatal appointments alone; and negative feelings of uncertainty surrounding giving birth during the pandemic.

LABOR SUPPORT BEFORE AND DURING COVID-19

Discussion

The results indicate that protected time as a family with fewer visitors in the room may have allowed partners to focus more energy on their significant other during birth, and potentially allowed couples to feel more trusting of and supported by their nurse. Mothers may also have had better experiences because they were not required to worry about anyone other than themselves and their baby. The high means in both groups for the outcomes listed in Table 3 indicate that staff and support persons were generally effective in fulfilling the wishes of birthing individuals during labor.

Given the homogeneity of the study sample, these findings are likely not representative of the population of birthing individuals in the United States as a whole. It is possible no significant relationships were found due to the homogenous sample consisting of mostly white, non-Hispanic women from households earning over \$75,000 annually who had uncomplicated vaginal deliveries. There are also many other factors that could influence birth experience besides support including maternal fear of birth, maternal anxiety or depression, prolonged labor, poor perceived control, maternal and/or newborn complications, unplanned operative deliveries, and unmet childbirth expectations (Chabbert et al., 2019; Mollard & Kupzyk, 2022).

Significant health disparities exist in the United States which may have altered birth experiences and outcomes in a more varied sample. Social determinants of health, structural racism, psychosocial and environmental stressors, poor access to high-quality care, and lack of adequate discharge transitions disproportionately affect impoverished families and families of color, leading to their increased prevalence of pre-term birth, low birth weight, and neonatal morbidity and mortality (Beck et al., 2020; Burriss & Hacker, 2017). Other studies of birth experience during the COVID-19 pandemic showed greater birth satisfaction overall in higher

LABOR SUPPORT BEFORE AND DURING COVID-19

income, married, white individuals and poorer birth satisfaction in birthing individuals of color, potentially related to the latter population being unduly affected by the pandemic in addition to the already prevalent inequalities in maternal healthcare (Mollard & Kupzyk, 2022). Minority groups were also at greater risk for negative birth experiences given their increased likelihood of having larger families and support systems who were then unable to provide support or advocate for the birthing individual against the discrimination they were more likely to experience (Altman et al., 2021). Similar research should be completed using a more diverse population to assess for differences in birth experiences and perceptions of support between individuals of varying demographics and life experiences.

Regression analyses between labor support and birth outcomes were dropped from the analytic plan as initial analysis did not show statistical significance and within the sample nearly all of the participants experienced an uncomplicated labor and birth. This finding might be different in a larger sample with more reported complications.

Strengths of this study include that many of the survey questions came from a valid and reliable tool, the homogeneity of the sample population allowed for drawing of causality between the survey results and COVID-19, and participants answered the survey questions in relation to an event which occurred at most five years in the past. A limitation to this study was that survey respondents were obtained from a convenience sample of birthing individuals mostly located geographically in south-eastern New Hampshire. Survey fliers were only physically posted in this area and the social media groups contacted were also based in this general location.

According to the United States Census Bureau, the population of the two counties that cover the south-eastern aspect of New Hampshire have an average of 91.2% of people who identify as white and non-Hispanic or Latinx, an average of 94.35% individuals over age 25 who are at least

LABOR SUPPORT BEFORE AND DURING COVID-19

high school graduates, an average of 38.55% of people who have a bachelor's degree or higher, and an average median household income of \$83,322 (2020). While these statistics are similar to those of New Hampshire as a whole, they are disparate from those of many other areas of the United States, and the homogeneity of the sample means the results are likely not representative of the United States population as a whole. The study sample was also relatively small, and the participants were not blinded as to the purpose of the study.

Nursing Implications

Education provided to pregnant individuals prenatally on the benefits of rest and family bonding during the initial postpartum period could help expectant parents to consider their preferences for visitors during and after birth. However, while the Intra-COVID participants did report feeling more supported than the Pre-COVID group and many described the positives of not being allowed visitors, many participants also expressed their wish that certain visitors had been allowed, namely their mothers or other children. This demonstrates the varied and individual nature of what constitutes a positive birth experience, further emphasizing the importance of comprehensive prenatal education allowing birthing individuals and families to carefully consider their desired visitors or lack thereof as the pandemic era restrictions are loosened. Going forward, nurses should also consider their role in guiding partners and other support persons in how to support individuals giving birth to promote positive experiences, given the evident connection between support and birth satisfaction present in the literature (Bohren, et al., 2017; Lunda et al., 2018). As the primary bedside caregiver, nurses have the opportunity to affect the progression and outcomes of birth through providing guidance and support both to the birthing individual and their chosen support person, making cognizance and implementation of this aspect of maternal and newborn nursing important to encouraging birth satisfaction.

LABOR SUPPORT BEFORE AND DURING COVID-19

Conclusion

Evaluation of the factors contributing to positive and negative birth experiences is important to reducing the risk of postpartum depression in birthing individuals. Research shows that continuous support is one protective factor in promoting satisfaction with birth, but it is thus far unclear how COVID-19 restrictions affected the support and experiences of the overall birthing population in the United States and beyond. While the results of this study show the potentially positive aspects of some limitations, future research must be completed investigating pandemic birth experiences in a more diverse population, and specifically assessing for any correlations between levels of support and birth outcomes to help guide future practice surrounding nurse and partner support.

LABOR SUPPORT BEFORE AND DURING COVID-19

References

- Altman, M. R., Eagen-Torkko, M. K., Mohammed, S. A., Kantrowitz-Gordon, I., Khosa, R. M., & Gavin, A. R. (2021). The impact of covid-19 visitor policy restrictions on birthing communities of colour. *Journal of Advanced Nursing*, 77(12), 4827-4835.
<https://doi.org/10.1111/jan.14991>
- Arora, K. S., Mauch, J. T., & Gibson, K. S. (2020). Labor and delivery visitor policies during the COVID-19 pandemic: balancing risks and benefits. *JAMA*, 323(24):2468–2469.
doi:10.1001/jama.2020.7563
- Beck, A. F., Edwards, E. M., Horbar, J. D., Howell, E. A., McCormick, M. C., & Pursley, D. M. (2020). The color of health: how racism, segregation, and inequality affect the health and well-being of preterm infants and their families. *Pediatric research*, 87(2), 227–234.
<https://doi.org/10.1038/s41390-019-0513-6>
- Bell, A. F., & Andersson, E. (2016). The birth experience and women's postnatal depression: A systematic review. *Midwifery*, 39, 112–123. <https://doi.org/10.1016/j.midw.2016.04.014>
- Bohren, M. A., Hofmeyr, G. J., Sakala, C., Fukuzawa, R. K., & Cuthbert, A. (2017). Continuous support for women during childbirth. *Cochrane Database of Systematic Reviews* 2017, 7. DOI: 10.1002/14651858.CD003766.pub6.
- Burris, H. H., & Hacker, M. R. (2017). Birth outcome racial disparities: A result of intersecting social and environmental factors. *Seminars in perinatology*, 41(6), 360–366.
<https://doi.org/10.1053/j.semperi.2017.07.002>

LABOR SUPPORT BEFORE AND DURING COVID-19

- Carquillat, P., Vendittelli, F., Perneger, T. & Guittier, M. J. (2017). Development of a questionnaire for assessing the childbirth experience (QACE). *BMC Pregnancy Childbirth* 17, 279. <https://doi.org/10.1186/s12884-017-1462-x>
- Chabbert, M., Panagiotou, D., & Wendland, J. (2021). Predictive factors of women's subjective perception of childbirth experience: a systematic review of the literature. *Journal of Reproductive & Infant Psychology*, 39(1), 43-66.
<https://doi.org/10.1080/02646838.2020.1748582>
- Falk, M., Nelson, M., & Blomberg, M. (2019). The impact of obstetric interventions and complications on women's satisfaction with childbirth a population based cohort study including 16,000 women. *BMC Pregnancy and Childbirth*, 19:494.
<https://doi.org/10.1186/s12884-019-2633-8>
- Gutschow, K., & Davis-Floyd, R. (2021). The impacts of COVID-19 on US maternity care practices: a followup study. *Frontiers in sociology*, 6, 655401.
<https://doi.org/10.3389/fsoc.2021.655401>
- Hodnett, E. D. (2002). Pain and women's satisfaction with the experience of childbirth: a systematic review. *American Journal of Obstetrics and Gynecology*, 186(5), 160-172.
DOI: [10.1067/mob.2002.121141](https://doi.org/10.1067/mob.2002.121141)
- Kilanowski, J. F. (2017). Breadth of the socio-ecological model. *Journal of Agromedicine*, 22(4), 295-297. DOI: [10.1080/1059924X.2017.1358971](https://doi.org/10.1080/1059924X.2017.1358971)

LABOR SUPPORT BEFORE AND DURING COVID-19

Lunda, P., Minnie, C. S., & Benadé, P. (2018). Women's experiences of continuous support during childbirth: a meta-synthesis. *BMC pregnancy and childbirth*, *18*(1), 167.

<https://doi.org/10.1186/s12884-018-1755-8>

Mollard, E. & Kupzyk, K. (2022). Birth satisfaction during the early months of the covid-19 pandemic in the united states. *MCN, The American Journal of Maternal/Child Nursing*, *47*(1), 6-12. doi: 10.1097/NMC.0000000000000777.

National Academies of Sciences, Engineering, and Medicine. (2020). *Birth Settings in America: Outcomes, Quality, Access, and Choice*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25636>.

United States Census Bureau. (2020). *U.S. census bureau quickfacts: strafford county, new hampshire; rockingham county, new hampshire; new hampshire*.

<https://www.census.gov/quickfacts/NH>


Waldenstrom, U., Hildingsson, I., Rubertsson, C., & Radestad, I. (2004). A negative birth experience: prevalence and risk factors in a national sample. *Birth Issues in Perinatal Care*, *31*(1), 17-27. <https://doi-org.unh.idm.oclc.org/10.1111/j.0730-7659.2004.0270.x> –

Webb, R., Ayers, S., Bogaerts, A., Jelacic, L., Pawlicka, P., Van Haeken, S., Uddin, N., Xuereb, R. B., & Kolesnikova, N. (2021). When birth is not as expected: a systematic review of the impact of a mismatch between expectations and experiences. *BMC Pregnancy and Childbirth*, *21*:475. <https://doi.org/10.1186/s12884-021-03898>

LABOR SUPPORT BEFORE AND DURING COVID-19

Appendix A

Permission to Use the QACE Survey Tool

 Guittier Marie-Julia (HES) <marie-julia.guittier@hesge.ch>
Thu 6/10/2021 10:07 AM

To: Sarah Krein

Caution - External Email

Dear Sarah,

Yes, of course you can use the QACE.

However, please remember that the validation of the psychometric properties was carried out in French.

Good work!

Marie-Julia

Marie-Julia GUITTIER ▪ PhD, Professeure HES
Filière Sage-femme
Haute école de santé ▪ HES-SO
Avenue de Champel 47 ▪ 1206 Genève
marie-julia.guittier@hesge.ch ▪ www.hesge.ch/heds
Tél. direct +41 22 388 57 22 ▪ Central +41 22 388 56 00

LABOR SUPPORT BEFORE AND DURING COVID-19

12.	My pain was relieved when I asked for it to be	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	Every event unfolded as I had imagined it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	I felt like I was losing control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	The support of my partner helped me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		My partner was not present during labor <input type="checkbox"/>						My partner was not present during delivery <input type="checkbox"/>				

* Not concerned = I had a caesarean before having a phase of labor with contractions

16. On the numeric rating scale for pain assessment, how much did you feel pain?

(Circle the corresponding number on the two scales below)

a) **During labor:** Not concerned (I had a caesarean before having contractions)

No pain 0 1 2 3 4 5 6 7 8 9 10 Excruciating pain

b) **During delivery** (caesarean or vaginal delivery)

No pain 0 1 2 3 4 5 6 7 8 9 10 Excruciating pain

Immediately after childbirth...

		Totally	In part	Not so much	Not at all
17.	I was able to see my baby for the first time in a satisfactory manner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	I held my baby for the first time when I felt like it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.	The first moments with my baby corresponded with what I had imagined prior to giving birth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Currently...

Totally	In part	Not so much	Not at all
---------	---------	-------------	------------

LABOR SUPPORT BEFORE AND DURING COVID-19

20.	I understood everything that happened during childbirth t	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21.	I am proud of myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22.	I feel regret	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23.	I have a feeling of failure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24.	Imagine a subsequent delivery scares me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

25. According to you, an ideal birth is a birth ...

(Number the proposals in order of importance from 1 to 6: 1 = the most important of the 6 answers, 6 = the least important of the 6 answers, please don't put the same number twice)

	Number from 1 to 6
Vaginal birth	N°
Spontaneous labor	N°
No pain	N°
Caesarean	N°
With the professional of my choice	N°
Schedule delivery	N°

26 If you put aside the emotions about the arrival of your baby, for you as a woman, your experience of childbirth has been ...

(Circle the corresponding number on the scale below)

very bad experience 0 1 2 3 4 5 6 7 8 9 10 very good experience

Free comments

Here you can freely share points not mentioned in the questionnaire or those that need to be specified.

LABOR SUPPORT BEFORE AND DURING COVID-19

Appendix C

Full Qualtrics Survey

Adapted and used with permission from Carquillat et al., 2017



Support During Birth

SCREEN-IN PAGE

Thank you for your interest in this brief survey on the factors affecting the experience of birth. Having a child can be an exciting, but challenging time, and the experience of birth can be affected by many personal and societal factors. We are interested in learning about your personal experience with birth and what factors affected your experience.

Was your most recent child born within the past five years (2017 or after)?

Yes

No

Are you over 18 years old?

Yes

No

Are you comfortable reading and answering questions in English?

Yes

No



LABOR SUPPORT BEFORE AND DURING COVID-19

**Consent to Participate in this Survey:**

Thank you for considering taking this survey to assist in the study of Labor Support (IRB-FY2022-216). This study is being conducted by an undergraduate nursing student from the University of New Hampshire under the guidance of a faculty advisor. This consent form describes the research study and helps you to decide if you want to participate. It provides important information about what you will be asked to do in the study, about the risks and benefits of participating in the study, and about your rights as a research participant.

You should:

- Read the information in this document carefully, and ask the research personnel any questions, particularly if you do not understand something.
- Not agree to participate until all your questions have been answered, or until you are sure that you want to.
- Understand that your participation in this study involves you answering questions about the experience you had with the birth of your most recent child that will last about 12 minutes.
- Understand that the potential risks of participating in this study are minimal but could include remembering unpleasant aspects of your most recent experience with birth.

The purpose of this research is to study what factors affect how individuals perceive the birth experience, and whether the COVID-19 pandemic has changed the experience of birth. In this study, you will be asked to answer a series of questions about your demographics and your most recent experience of birth. In order to participate, it is required that you are over 18 years old, have given birth to your youngest child within the past five years, and are able to read English fluently. It is anticipated that 200 participants will be involved in the study. The researchers may exclude you from the study if you do not meet these criteria. You should complete the survey only once. For questions about eligibility, please contact the researchers (contact information is provided at the end of this form).

The risks of participating in this study are minimal but could include remembering unpleasant aspects of your most recent birth experience. Any use of the internet poses minimal risk of a breach of confidentiality. In order to protect your confidentiality, your survey answers will be protected on an encrypted platform and no IP addresses or personally identifiable information will be collected to protect your anonymity. All of your survey data will be downloaded regularly into a UNH Box file that is password protected and will only be accessed by the research personnel using password protected computers. Data collected in this study will be combined and reported in a student-completed research project that will result in a poster and podium presentation and potentially a peer-reviewed journal article.

LABOR SUPPORT BEFORE AND DURING COVID-19

There are no direct benefits to you if you decide to participate in this study. However, this research will help to identify factors that may improve birth experience, which could impact your satisfaction and the satisfaction of other individuals with future births. No compensation will be provided for participating in this study.

Taking part in this study is completely voluntary. You may choose not to take part at all. If you decide not to participate, you will not be penalized in any way. If you agree to participate in this study and you then change your mind, you may refuse to answer any question or choose to stop participating at any time. Any data collected as part of your participation will remain part of the study records. If you decide to stop participating at any time, you will not be penalized in any way.

If you have any questions pertaining to the research you can contact Sarah Krein through emailing Sarah.Krein@unh.edu, or my faculty advisor, Dr. Alyssa O'Brien through emailing Alyssa.Obrien@unh.edu to discuss them. If you have questions about your rights as a research subject you can contact Melissa McGee in UNH Research Integrity Services, 603/862-2005 or melissa.mcgee@unh.edu to discuss them.

Thank you for participating!

Please indicate whether you consent or decline to participate in this study.

Yes, I would like to participate!

No, I would not like to participate.

Next



Please answer the following questions about the support you received from healthcare providers.

The staff understood and fulfilled my wishes in a satisfactory manner.

Totally

In part

Not so much

Not at all

I felt emotionally supported by the staff who took care of me.

Totally

In part

Not so much

Not at all

LABOR SUPPORT BEFORE AND DURING COVID-19

The staff kept me informed of what was happening.

Totally

In part

Not so much

Not at all

I felt I could express myself and give my opinion about decisions about me.

Totally

In part

Not so much

Not at all

My pain was relieved when I asked for it to be.

Totally

In part

Not so much

Not at all

>>



Please answer the following questions about the support you received from non-healthcare providers.

Did you have a chosen support person with you during labor?

Yes

No

Who was your chosen support person?

Spouse/partner/significant other

Other family member

Friend

Doula

Other

LABOR SUPPORT BEFORE AND DURING COVID-19

The support of my chosen support person helped me.

Totally
In part
Not so much
Not at all



Please answer the following questions about how you felt/feel about your birth experience.

I felt worried.

Totally
In part
Not so much
Not at all

I felt secure.

Totally
In part
Not so much
Not at all

I felt strange sensations.

Totally
In part
Not so much
Not at all

LABOR SUPPORT BEFORE AND DURING COVID-19

I felt confident.

Totally

In part

Not so much

Not at all

I am satisfied with the way the events unfolded.

Totally

In part

Not so much

Not at all

I managed to successfully use relaxation techniques to help me during womb (uterine) contractions.

Totally

In part

Not so much

Not at all

I managed to successfully move or choose my posture freely.

Totally

In part

Not so much

Not at all

Every event unfolded as I had imagined it.

Totally

In part

Not so much

Not at all

I felt like I was losing my control.

Totally

In part

Not so much

Not at all

LABOR SUPPORT BEFORE AND DURING COVID-19

I was able to see my baby for the first time in a satisfactory manner.

Totally

In part

Not so much

Not at all

I held my baby for the first time when I felt like it.

Totally

In part

Not so much

Not at all

The first moments with my baby corresponded with what I had imagined prior to giving birth.

Totally

In part

Not so much

Not at all

I understood everything that happened during childbirth.

Totally

In part

Not so much

Not at all

I am proud of myself.

Totally

In part

Not so much

Not at all

I feel regret.

Totally

In part

Not so much

Not at all

LABOR SUPPORT BEFORE AND DURING COVID-19

I have a feeling of failure.

Totally

In part

Not so much

Not at all

Imagining a subsequent delivery scares me.

Totally

In part

Not so much

Not at all

On the numeric rating scale for pain assessment, how much did you feel pain?

0 1 2 3 4 5 6 7 8 9 10

Pain level



<<

>>



Now just a few final questions about you. Please answer these questions based on your most recent birth experience.

Which of the following best describes your gender?

Male

Female

Transgender male

Transgender female

Non-binary/third gender

Prefer not to say

Prefer to self-describe

LABOR SUPPORT BEFORE AND DURING COVID-19

What is your race?

- Alaskan native or Native American
- Asian
- Black or African American
- Native Hawaiian or other pacific islander
- White
- Prefer not to say
- Prefer to self describe
-

What is your ethnicity?

- Hispanic or Latinex
- Non-Hispanic or Latinex
- Prefer not to say
- Prefer to self describe
-

What was your household income in the last year?

- Less than \$25,000
- \$25,000-\$34,999
- \$35,000 to \$49,999
- \$50,000-\$74,9999
- \$75,000-\$99,999
- \$100,000-\$149,999
- \$150,000 or more
- Prefer not to say



LABOR SUPPORT BEFORE AND DURING COVID-19



What was your age at the time of your most recent child's birth?

In what month and year did you give birth to your most recent child?

At the time of this birth did you have any other children at home? If so, in what month and year were they born?

Yes

No

What kind of delivery did you experience during your most recent birth

Vaginal delivery

Scheduled/Planned Cesarean delivery (C-section)

Unplanned Cesarean delivery (C-section)

LABOR SUPPORT BEFORE AND DURING COVID-19

Were there any interventions used to help you deliver your baby during this birth?

Labor augmentation (Pitocin)

Forceps

Vacuum

No interventions were used

How long was your labor during your most recent birth?

Less than 5 hours

5-10 hours

10-15 hours

More than 15 hours

I did not labor

Did you experience any complications during your most recent birth?

Yes

No

Have you ever attended any childbirth classes prior to your most recent or any previous births?

Yes

No

<<

>>

LABOR SUPPORT BEFORE AND DURING COVID-19



Are there any other factors we have not addressed that you feel played a role in your most recent birth experience?

If your most recent birth was between March of 2020 and today, do you feel the COVID-19 pandemic affected your experience of birth? If so, please describe in what ways.

If you did not give birth during this period, please disregard this question.



LABOR SUPPORT BEFORE AND DURING COVID-19



If, after taking this survey, you want to speak with anyone about your experiences, the following resources may be helpful.

Type of Support	Organization	Contact Information	Services
Mental Health			
	Seacoast Mental Health Center	Portsmouth: 603-431-6703 Exeter: 603-772-2710	24/7 Mental Health Crisis intervention and counseling and therapy services
	SAMHSA Helpline	1-800-662-HELP	24/7 National treatment and referral services for people and families facing substance use disorder
	Postpartum Support International	1-800-944-4PPD	Call to leave a message and a volunteer will call you back to connect you with maternal mental health services in your area.
	Postpartum Progress	https://www.smartpatients.com/communities/postpartum	Many moms find the online community support forums offered through Postpartum Progress to be helpful
Family			
	Community Partners (Strafford County residents)	1-800-454-0630	Family support services, including mental health, parenting support groups
	Families First: Family Resource Center	603-442-8209	Parenting classes and family support groups, childcare, and family activities



LABOR SUPPORT BEFORE AND DURING COVID-19



Thank you so much for taking our survey on the factors affecting the experience of birth!

Please click "submit" to submit your responses.



We thank you for your time spent taking this survey.
Your response has been recorded.