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# Access, Interest, and Barriers to Incorporation of Birth Doula Care in the United States

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## ABSTRACT

Doula care improves maternal care, yet barriers exist to incorporating doula care. The purpose of this study was to evaluate interest and barriers to doula care. Overall, 508 women, 26–35 years of age (54.5%), White/Caucasian (89.8%), and married (88.6%), completed this study. Most reported  $\geq 1$  previous birth (97.6%). Respondents would “feel comfortable” (73.2%) and “more confident” (54.9%) with doula care at birth, and 57.9% reported their provider would be supportive of doula care. Only 39.0% expressed benefits to doula care during pregnancy compared to 72.6% at birth and 68.1% during postpartum. Most would hire a doula if health insurance covered some of the costs. Despite the recognized benefits and support of doula care, cost-associated barriers exist to the incorporation of doula care.

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## BACKGROUND

Birth is a physiological process relying on the readiness of the fetus and the receptiveness of the mother. This multifactorial process, influenced by maternal and fetal hormones, has implications for the initiation of labor, labor progression, fetal expulsion, breastfeeding, and mother–infant bonding (Buckley, 2015; Nazzari et al., 2019; Walter et al., 2021). The introduction of modern birthing interventions, such as labor induction and cesarean surgery, has the potential to disrupt the delicate relationship between maternal and fetal hormones (Bohren et al., 2019; Galin et al., 2022; Kenkel, 2021) and to induce adverse outcomes for the

mother and infant (Bohren et al., 2017; Committee on Obstetric Practice, 2017; Thuillier et al., 2018; Vecchioli et al., 2020). To achieve high-quality maternity care and optimal outcomes for women during birth, the utilization of interventions should be determined by appropriate maternal and/or fetal indications (Committee on Obstetric Practice, 2017; Gaudernack et al., 2018; Zahroh et al., 2022). Evidence-based birthing practices are informed by high-quality systematic reviews and consider both the beneficial and adverse effects and appropriate indications for usage (Zahroh et al., 2022).

Doula care presents a unique opportunity to promote appropriate evidence-based birthing

practices. A doula is a trained, nonmedically qualified professional (i.e., does not birth infants or provide medical care; Young, 2021), who provides support to women throughout the prenatal care continuum from conception to postpartum (Declercq et al., 2013; Hans et al., 2018). This includes physical, emotional, social, and informational support, which incorporates the power of “loving-kindness,” a technique that trains the individual to integrate their innate loving and kind tendencies with provided care (Don et al., 2022), cultivating the propensity for kindness in improving health outcomes (Salzberg, 2011). As such, there is growing support for the incorporation of doula care within traditional medical practices during pregnancy, birth, and postpartum. The American College of Obstetricians and Gynecologists advocates for doula care to assist women in achieving birth goals, improving maternal satisfaction, and limiting medically unnecessary interventions (Committee on Obstetric Practice, 2017).

Women who receive doula care experience more positive labor and birth outcomes, including shorter labor time, declined utilization of cesarean surgeries and instrumental vaginal birth, and decreased infant mortality (Bohren et al., 2019; Declercq et al., 2013; Hans et al., 2018). Furthermore, in addition to support provided by family and friends, women supported by doula care during their maternal care have been shown to experience a reduced risk of preterm birth (Attanasio et al., 2021), birth of a small for gestational age infant, and higher rates of breastfeeding initiation (Falconi et al., 2022). Despite the benefits of doula care, only 6% of women are opting for doula care assistance (Declercq et al., 2013). The cost has been established as a well-known barrier to doula care (Searcy & Castañeda, 2021) as most doula care services are reserved for private payers (Sudhof & Shah, 2019). Currently, six states, including Oregon, Minnesota, New Jersey, Florida, Maryland, and Virginia, are the only states that provide health-care reimbursement for doula care to Medicaid beneficiaries (Chen, 2018). However, women who receive Medicaid benefits are less likely to be aware of doula care, yet are more likely to desire doula care when made aware of this benefit (Chen, 2018).

The use of evidence-based practices during pregnancy, birth, and postpartum can be enhanced with doula care, which enriches

educational opportunities on pregnancy-related health outcomes, intervention need during birth, and aiding in postpartum support for mother, child, and the familial unit (Bey et al., 2019; Thomas et al., 2017). To increase the involvement of doula care in the prenatal care continuum there is a need to understand if women desire doula care, the current access to doula care, and what perceived barriers exist to further integrate doula care into the current maternity care system. Therefore, the aim of this study was to examine responses from pregnant or previously pregnant individuals regarding doula care. The responses from this study were designed to address three primary research outcomes: (a) the need for doula care, (b) interest in receiving doula care, and (c) potential barriers to incorporating doula care.

## **METHODS**

### ***Survey Design***

The Labor and Matters of Birth survey (LAMBs) was a formative research study targeting individuals who were currently pregnant or had been pregnant within their lifetime to complete an online survey (provided in Supplementary Information: available at <https://connect.springerpub.com/journals> in the PDF view). Those of reproductive age who were currently pregnant or had a history of pregnancy were eligible to participate. Identifying as a woman or female was not a requirement for participation. The study protocol was approved and monitored by the study name Institutional Review Board and informed consent was received from each participant prior to participation in the study name.

Survey questions were developed using recognized information about birth and doula care (Bohren et al., 2017; Declercq et al., 2013). Development was then guided by The Listening to Mothers III study, as this survey was one of the only studies to comprehensively assess the needs and opinions of women toward birth in the United States (Declercq et al., 2013). A preliminary set of questions was then refined from iterative feedback from researchers and content experts in reproductive endocrinology and women’s health study name (Bergmeier et al., 2020; Most et al., 2019; Redman et al., 2017).

In total, the survey had 40 questions or statements that captured participant responses across six domains. These included (a)

demographic information: age, race and/or ethnicity, sex, marital status, household income, and state in which they lived (United States); (b) history of birth outcomes: number of prior births, types of previous births, preterm birth, small for gestational age, family or friend support during birth, interventions received during labor, breastfeeding duration, and duration of postpartum support; (c) perceptions of birth: discussion of birth plans with support person and provider, confidence in body's ability for birth, provider respect for birth wishes, understanding of labor stages, importance of birth plan, past-term pregnancy, eating or moving during labor, and cesarean surgeries; (d) doula care support for birth: comfort, confidence, and provider support for doula care; (e) interest for doula care: perceived benefits of doula care and primary goal of incorporating doula care; and (f) barriers to doula care: conditions under which doula care would be incorporated and ability to afford doula care. The survey only included 40 questions or statements for respondents who reported a previous pregnancy and only 33 questions for respondents who were currently pregnant. The additional questions for multiparous participants pertained to pregnancy and birth history, breastfeeding, and postpartum health and needs. No open-ended questions were asked, and all responses were categorically captured.

The need for doula care was evaluated using responses primarily from the domains capturing the history of birth outcomes and social support for birth. These domains asked specifically about intervention utilization, type of birth, social support during birth and postpartum, discussion of birth plans with support individuals and medical providers, and duration of breastfeeding. Second, interest was evaluated by asking participants to indicate how doula care would impact their comfort and confidence surrounding birth and to identify individual benefits and goals for incorporating doula care. Third, we determined potential barriers to incorporating doula care by asking about provider support of doula care, conditions under which respondents would desire to hire doula care, and how costs associated with doula care services would be met.

### ***SURVEY DISTRIBUTION***

Individuals were invited to participate in the LAMBs via targeted advertisements directed to Facebook groups, or e-mail listservs for potential

research participants. Birth professionals (including doulas, childbirth educators, midwives, and lactation consultants) were also directly contacted via Facebook messenger or e-mail and asked to share the opportunity to participate in the study with their clients. Advertisements indicated that the study was seeking to understand a woman's need for support during and after pregnancy and provided a hyperlink to the electronic survey hosted on Research Electronic Data Capture (REDCap), a secure web-based application (Harris et al., 2009), hosted at study name. Interested participants were provided a description of the study purpose, disclosure of the time burden, and were asked to provide electronic informed consent to participate. Individuals who met the inclusion criteria, currently pregnant or a history of pregnancy, were admitted into the survey. All responses were anonymous and no protected health information was obtained. Participants were not offered any incentive for participation.

### ***Statistical Analysis***

At the completion of the study, data were exported from REDCap into a SAS database (SAS version 9.4, Cary, NC) for analyses. All responses were categorical based on the survey design and analyzed as such. Data are presented as the number and proportion of responses for respondent demographics and each of the three specific research outcomes. Proportional analyses were used to address these three research outcomes: (a) evaluate the need for doula care, (b) examine the interest in receiving doula care, and (c) determine potential barriers to incorporating doula care. Respondent age, household income, and prior birth history were further explored to examine proportional differences for age, household income, and prior birth history on our research outcomes. For comparison of responses examining the proportional difference of age, household income, and prior birth history,  $X^2$  analysis was performed and a  $p$ -value  $<.05$  was considered statistically significant.

## **RESULTS**

### ***Respondent Demographics***

A total of 586 respondents began the LAMBs, with 508 respondents completing all questions, which were included in the analysis (Table 1). Although identifying as female was not a requirement for participation, all respondents who completed the survey identified as female. Most women resided

in the United States (474/508; 93.3%), with over one third of the women (276/508; 39.0%) reported living in the state of Louisiana (United States) and at least one participant response was obtained from each of the 50 states in the United States. Overall, the greatest proportion of women reported being 26–35 (277/508; 54.5%) years of age, White or Caucasian (456/508; 89.8%), currently married (448/508; 88.2%), and with an average household income between \$50,000 and \$74,999 USD (112/508; 22.0%), \$74,999 and \$99,999 USD (98/508; 19.3%), or \$100,000 and \$149,999 USD (108/508; 21.3%), respectively.

### Need for Doula Care

Outcomes related to the assessment of the need for doula care are presented in Table 2. Most women reported  $\geq 1$  prior birth (496/508; 97.6%), with the greatest proportion of women reporting one to two previous births being 26–30 years of age (102/508; 20.1%). The most prevalent birth type was vaginal birth (358/508; 70.5%) with an unscheduled cesarean surgery as the second most prevalent mode of birth (140/508; 27.8%). When evaluating preterm birth, which was defined as any previous birth that occurred prior to 37 weeks of gestation, 15.2% (77/508) of women responded they had at least one infant born preterm. The responses were similar for low birth weight (<5.5 pounds or 2,500 grams), with 10.0% (51/508) women reporting at least one infant born at or below this weight.

When asked about interventions utilized during previous labors and births, almost half of the women studied reported having labor induced (213/508; 41.9%) or received Pitocin (282/508; 55.5%), intravenous fluids (340/508; 66.9%), and required the use of fetal heart rate monitoring (402/508; 79.1%). The greatest proportion of women who reported receiving Pitocin or required the use of fetal heart rate monitoring were 26–35 years of age (161/508; 31.7% and 225/508; 44.3%, respectively) and experienced one to two prior births (194/508; 38.2% and 231/508; 45.5%, respectively).

Responses to support during birth yielded interesting findings as most women reported receiving support from a family member or a friend during birth (461/508; 90.7%), with those 26–35 years of age (249/508; 49.0%) and experiencing one to two prior births (229/508; 45.1%) reporting the greatest proportion receiving support at all births.

TABLE 1.

Respondent Demographics Presented as the Number (Percentage) of Respondents

| Response variable                 | N(%)                 |
|-----------------------------------|----------------------|
| Age                               |                      |
| <20 years                         | 1 (.2)               |
| 20–25 years                       | 47 (9.3)             |
| 26–30 years                       | 134 (26.4)           |
| 30–35 years                       | 143 (28.1)           |
| 35–40 years                       | 82 (16.1)            |
| 40–45 years                       | 43 (8.5)             |
| 45–50 years                       | 20 (3.9)             |
| >50 years                         | 36 (7.1)             |
| N/A, missing                      | 2 (.4)               |
| Race/ethnicity                    |                      |
| White/Caucasian                   | 456 (89.8)           |
| Black/African American            | 12 (2.4)             |
| Asian/Asian American              | 1 (.2)               |
| American Indian or Alaskan Native | 1 (.2)               |
| Some other race                   | 11 (2.2)             |
| Multiracial                       | 22 (4.3)             |
| N/A, missing                      | 3 (.6)               |
| Hispanic/Latino                   | 30 (5.9)             |
| Marital status                    |                      |
| Single                            | 20 (3.9)             |
| Married/divorced                  | 448 (88.2) /23 (4.5) |
| Widowed                           | 3 (.6)               |
| Other                             | 10 (2.0)             |
| N/A, missing                      | 4 (.8)               |
| Household income                  |                      |
| <\$25,000                         | 21 (4.1)             |
| \$25,000–\$34,999                 | 43 (8.5)             |
| \$35,000–\$49,999                 | 73 (14.4)            |
| \$50,000–\$74,999                 | 112 (22.0)           |
| \$75,000–\$99,999                 | 98 (19.3)            |
| \$100,000–\$149,000               | 108 (21.3)           |
| \$150,000–\$199,999               | 25 (4.9)             |
| >\$200,000                        | 22 (4.3)             |
| N/A, missing                      | 6 (1.2)              |
| Residence                         |                      |
| Louisiana, United States          | 198 (39.0)           |
| Outside Louisiana, United States  | 276 (54.3)           |
| Outside the United States         | 22 (4.3)             |
| N/A, missing                      | 12 (2.4)             |

Note. In all, 496–506 total respondents per section excluding “N/A, missing.”

A small proportion of women reported having support at some births (18/508; 3.5%) or having no support at birth (17/508; 3.3%). However, after birth, 40.4% (205/508) of respondents reported receiving 7 or fewer days of support.

When asked about their current pregnancy, most women reported they openly discussed birth plans with friends, family, or loved ones

TABLE 2.

## Assessment for Need of Doula Care Presented as Number (Percentage) of Respondents

| Response variable                            | N(%)       | p for age | p for income | p for parity |
|--|------------|-----------|--------------|--------------|
| Number of births                             |            | <.0001    | .4231        | N/A          |
| 1–2 previous births                          | 341 (67.1) |           |              |              |
| 3–4 previous births                          | 129 (25.4) |           |              |              |
| 5+ previous births                           | 26 (5.1)   |           |              |              |
| Never given birth, currently pregnant        | 8 (1.6)    |           |              |              |
| Never given birth                            | 4 (.8)     |           |              |              |
| Family or friend at birth                    |            | .0037     | .3681        | .0081        |
| Yes, at all of my births                     | 461 (90.7) |           |              |              |
| Yes, at some of my births                    | 18 (3.5)   |           |              |              |
| No, not with me when I gave birth            | 17 (3.3)   |           |              |              |
| N/A, missing                                 | 12 (2.4)   |           |              |              |
| Types of previous births <sup>a</sup>        |            |           |              |              |
| Vaginal                                      | 358 (70.5) | .1441     | .4884        | <.0001       |
| Scheduled cesarean                           | 58 (11.4)  | .0008     | .0534        | .5543        |
| Unscheduled cesarean                         | 140 (27.8) | .2483     | .5325        | .0761        |
| Vaginal after cesarean                       | 41 (8.1)   | .0161     | .1681        | .0019        |
| Cesarean after cesarean                      | 28 (5.5)   | .05295    | .4451        | .7997        |
| Unsure/prefer not to answer                  | 0 (.0)     |           |              |              |
| Preterm birth                                |            | .0161     | .0276        | .0043        |
| Yes  | 77 (15.2)  |           |              |              |
| No   | 419 (82.5) |           |              |              |
| N/A, missing                                 | 12 (2.4)   |           |              |              |
| Low birth weight                             |            | .0067     | .0195        | .0001        |
| Yes  | 51 (10.0)  |           |              |              |
| No   | 445 (87.6) |           |              |              |
| N/A, missing                                 | 12 (2.4)   |           |              |              |
| Interventions used during labor <sup>a</sup> |            |           |              |              |
| Induction                                    | 213 (41.9) | .0596     | .1374        | .0109        |
| Pitocin                                      | 282 (55.5) | .0008     | .1543        | .0039        |
| IV fluid                                     | 340 (66.9) | .4047     | .166         | <.0001       |
| Heart rate monitoring                        | 402 (79.1) | .0042     | .9556        | <.0001       |
| None   | 57 (11.2)  | .7975     | .6745        | .6203        |
| Unsure/prefer not to answer                  | 0 (.0)     |           |              |              |
| Duration of support during postpartum        |            | .2107     | .2460        | .8938        |
| 1–7 days                                     | 205 (40.4) |           |              |              |
| 2–3 weeks                                    | 126 (24.8) |           |              |              |
| 1 month                                      | 30 (5.9)   |           |              |              |
| >1 month                                     | 123 (24.2) |           |              |              |
| Unsure/prefer not to answer                  | 12 (2.4)   |           |              |              |
| N/A, missing                                 | 12 (2.4)   |           |              |              |
| Duration of breastfeeding                    |            | <.0001    | <.0001       | .0047        |
| ≤1 month                                     | 37 (7.3)   |           |              |              |
| 2–3 months                                   | 39 (7.7)   |           |              |              |
| 4–6 months                                   | 24 (4.7)   |           |              |              |
| 6–12 months                                  | 82 (16.1)  |           |              |              |
| Did not breastfeed                           | 40 (7.9)   |           |              |              |
| Unsure/prefer not to answer                  | 12 (2.4)   |           |              |              |
| N/A, missing                                 | 12 (2.4)   |           |              |              |

(Continued)

**TABLE 2.**  
**Assessment for Need of Doula Care Presented as Number (Percentage) of Respondents (Continued)**

| <b>Response variable</b>                    | <b>N(%)</b> | <b>p for age</b> | <b>p for income</b> | <b>p for parity</b> |
|---|-------------|------------------|---------------------|---------------------|
| Most recent pregnancy                       |             |                  |                     |                     |
| Discuss birth plan with loved one           |             | <.0001           | .3354               | .6799               |
| Frequently                                  | 345 (67.9)  |                  |                     |                     |
| Occasionally                                | 107 (21.1)  |                  |                     |                     |
| Rarely                                      | 22 (4.3)    |                  |                     |                     |
| Never                                       | 9 (1.8)     |                  |                     |                     |
| N/A, missing                                | 25 (4.9)    |                  |                     |                     |
| Provider discussion of birth plan           |             | .0025            | .1059               | .2504               |
| Frequently                                  | 223 (43.9)  |                  |                     |                     |
| Occasionally                                | 171 (33.7)  |                  |                     |                     |
| Rarely                                      | 73 (14.4)   |                  |                     |                     |
| Never                                       | 14 (2.8)    |                  |                     |                     |
| N/A, missing                                | 27 (5.3)    |                  |                     |                     |
| Prior pregnancies                           |             |                  |                     |                     |
| Discussed birth plan with loved one         |             | .0345            | .7761               | .0290               |
| Frequently                                  | 365 (71.9)  |                  |                     |                     |
| Occasionally                                | 112 (22.0)  |                  |                     |                     |
| Rarely                                      | 20 (3.9)    |                  |                     |                     |
| Never                                       | 5 (1.0)     |                  |                     |                     |
| N/A, missing                                | 6 (1.2)     |                  |                     |                     |
| Provider discussed birth plan               |             | .0011            | .8143               | .1594               |
| Frequently                                  | 235 (46.3)  |                  |                     |                     |
| Occasionally                                | 112 (22.0)  |                  |                     |                     |
| Rarely                                      | 20 (3.9)    |                  |                     |                     |
| Never                                       | 5 (1.0)     |                  |                     |                     |
| N/A, missing                                | 6 (1.2)     |                  |                     |                     |
| Having a birth plan is important            |             | .1483            | .4635               | .1480               |
| Agree                                       | 365 (71.9)  |                  |                     |                     |
| Neutral                                     | 109 (21.5)  |                  |                     |                     |
| Disagree                                    | 21 (4.1)    |                  |                     |                     |
| Unsure                                      | 6 (1.2)     |                  |                     |                     |
| N/A, missing                                | 7 (1.4)     |                  |                     |                     |
| Confident in body's ability to birth a baby |             | .5583            | .597                | .0328               |
| Agree                                       | 400 (78.7)  |                  |                     |                     |
| Neutral                                     | 54 (10.6)   |                  |                     |                     |
| Disagree                                    | 34 (6.7)    |                  |                     |                     |
| Unsure                                      | 8 (1.6)     |                  |                     |                     |
| N/A, missing                                | 12 (2.4)    |                  |                     |                     |
| Provider respected wishes for birth         |             | .5972            | .2352               | .8929               |
| Agree                                       | 408 (80.3)  |                  |                     |                     |
| Neutral                                     | 57 (11.2)   |                  |                     |                     |
| Disagree                                    | 29 (5.7)    |                  |                     |                     |
| Unsure                                      | 2 (.4)      |                  |                     |                     |
| N/A, missing                                | 12 (2.4)    |                  |                     |                     |
| Understood the stages of labor              |             | .3327            | .2766               | .1233               |
| Agree                                       | 417 (82.1)  |                  |                     |                     |
| Neutral                                     | 48 (9.4)    |                  |                     |                     |
| Disagree                                    | 27 (5.3)    |                  |                     |                     |
| Unsure                                      | 3 (.6)      |                  |                     |                     |
| N/A, missing                                | 13 (2.6)    |                  |                     |                     |

(Continued)

TABLE 2.

Assessment for Need of Doula Care Presented as Number (Percentage) of Respondents (*Continued*)

| Response variable                 | N(%)       | p for age | p for income | p for parity |
|-----------------------------------|------------|-----------|--------------|--------------|
| Having a birth plan was important |            | .2284     | .9649        | .0074        |
| Agree                             | 335 (66.0) |           |              |              |
| Neutral                           | 112 (22.0) |           |              |              |
| Disagree                          | 51 (10.0)  |           |              |              |
| Unsure                            | 5 (1.0)    |           |              |              |
| N/A, missing                      | 5 (1.0)    |           |              |              |

Note. N/A = not applicable.

<sup>a</sup>Denotes that respondents could choose more than one response; 481–503 total respondents per section excluding “N/A, missing.”

frequently (365/508; 71.9%), which was self-determined by respondents and not predefined. However, less than 50% of women reported openly discussing their birth plans with their providers (223/508; 43.9%). These findings were similar when examining the most recent pregnancy or birth, where 71.9% (365/508) and 46.3% (235/508) of women reported frequently discussing their birth plans with their providers. The greatest proportion of women who reported these findings were 26–35 years of age (199/508; 39.2%; 126/508; 24.8%; 128/508; 25.2%; 209/508; 41.1%; 127/508; 25.0%). Most women, regardless of age or household income, expressed confidence in their ability to birth a baby (400/508; 78.7%), regardless of birth type, understood the stages of labor (417/508; 82.1%), and that having a birth plan is important (365/508; 71.9%).

### Interest in Receiving Doula Care

Outcomes related to the interest in receiving doula care are presented in Table 3. Most women agreed that they would feel comfortable (372/508; 73.2%) and more confident (279/508; 54.9%) with having doula care present at birth. Interestingly, 39.0% (198/508) of women tended to perceive doula care as not beneficial during pregnancy, whereas they found doula care beneficial for birth (369/508; 72.6%) and postpartum (346/508; 68.1%). For birth, the greatest proportion of women who reported these findings earned \$50,000–\$74,999 USD (89/508; 17.5%) and had experienced one to two prior births (245/369; 48.2%). For postpartum, the greatest proportion of women who reported these findings were 26–35 years of age (204/508; 40.2%), earning \$50,000–\$74,999 USD (84/508; 16.5%), and experienced one to two prior births (226/508; 44.5%). Of note, a small proportion of women reported that there are no benefits of doula care (53/586; 9.0%), with the greatest proportion

being women 50+ years of age (13/508; 2.6%) and earning \$100,000–\$149,999 USD (19/508; 3.7%).

If women chose to incorporate doula care into their pregnancy, birth, and postpartum care, the primary goals for doing so would be to provide emotional and physical support during labor (377/508; 74.2%), provide emotional support following birth (315/508; 62.0%), assist the mother after giving birth (302/508; 59.4%), provide physical support following birth (269/508; 53.0%), and help spouse during childbirth (264/508; 52.0%).

### Barriers to Incorporating Doula Care

Over half of the women (294/508; 57.9%) reported that their provider would be supportive of additive doula care. Almost three fourths of women indicated they would hire a doula if health insurance covered the cost of doula care (372/508; 73.2%), while one half of women indicated they would hire a doula if doula care cost could be applied to a health insurance deductible (257/508; 50.6%). The greatest proportion of women who reported they would hire a doula if health insurance covered the cost were 30–35 years of age (114/508; 22.4%), earned U.S.\$50,000–\$74,999 (92/508; 18.1%), and experienced one to two prior births (247/508; 48.6%), which was similar for those reporting they would hire a doula if doula care cost could be applied to health insurance deductible, 30–35 years of age (83/508; 16.3%) and earning U.S.\$50,000–\$74,999 (65/508; 12.8%).

Less than 40% (190/586; 32.4%) of women expressed a willingness to hire a doula privately with no cost coverage provided by health insurance, while 15.4% (78/508) of women reported they would not hire a doula. Interestingly, 43.5% (221/508) reported being able to afford a doula, which was most prevalent in women earning U.S. \$100,000–\$149,999 (63/508; 12.4%), while 36.4% (185/508) reported not being able to afford a doula,

**TABLE 3.**

**Assessing Interest in Receiving and Potential Barriers to Receiving Doula Care Presented as Number (Percentage) of Respondents**

| <b>Response variable</b>                             | <b>N(%)</b> | <b>p for age</b> | <b>p for income</b> | <b>p for parity</b> |
|--|-------------|------------------|---------------------|---------------------|
| <b>Interest in Receiving Doula Care</b>              |             |                  |                     |                     |
| Comfortable having doula at birth                    |             | .0006            | .0010               | .3740               |
| Agree  | 372 (73.2)  |                  |                     |                     |
| Neutral  | 62 (12.2)   |                  |                     |                     |
| Disagree   | 35 (6.9)    |                  |                     |                     |
| Unsure   | 34 (6.7)    |                  |                     |                     |
| N/A, missing   | 5 (1.0)     |                  |                     |                     |
| More confident about birth with doula                |             | .0057            | .0014               | .1966               |
| Agree  | 279 (54.9)  |                  |                     |                     |
| Neutral  | 126 (24.8)  |                  |                     |                     |
| Disagree   | 63 (12.4)   |                  |                     |                     |
| Unsure   | 33 (6.5)    |                  |                     |                     |
| N/A, missing   | 7 (1.4)     |                  |                     |                     |
| Provider supportive of doula care                    |             | <.0001           | .0096               | .0171               |
| Agree  | 294 (57.9)  |                  |                     |                     |
| Neutral  | 76 (15.0)   |                  |                     |                     |
| Disagree   | 14 (2.8)    |                  |                     |                     |
| Unsure   | 117 (23.0)  |                  |                     |                     |
| N/A, missing   | 7 (1.4)     |                  |                     |                     |
| Doula would provide most support <sup>a</sup>        |             |                  |                     |                     |
| Pregnancy  | 198 (39.0)  | .5876            | .5838               | .4629               |
| Birth  | 369 (72.6)  | .0998            | .0006               | .0054               |
| Postpartum   | 346 (68.1)  | <.0001           | .0023               | .0072               |
| No benefit   | 53 (10.4)   | <.0001           | <.0001              | .2004               |
| Primary goal in hiring a doula <sup>a</sup>          |             |                  |                     |                     |
| Help educate me on pregnancy                         | 88 (17.3)   | .0056            | .7533               | .0359               |
| Help educate me on childbirth                        | 140 (27.6)  | .0284            | .9423               | .0031               |
| Provide support during labor                         | 377 (74.2)  | .0287            | .0168               | .0078               |
| Increase safety of my birth                          | 227 (44.7)  | .7591            | .0109               | .1624               |
| Help spouse during childbirth                        | 264 (52.0)  | <.0001           | .0002               | .0329               |
| Assist me with breastfeeding                         | 211 (41.5)  | .0388            | .4945               | .0003               |
| Assist me after giving birth                         | 302 (59.4)  | <.0001           | .0067               | .0293               |
| Provide emotional support following birth            | 315 (62.0)  | .0310            | .0004               | .0411               |
| Provide physical support following birth             | 269 (53.0)  | .0008            | .0003               | .0717               |
| <b>Potential Barriers to Receiving Doula Care</b>    |             |                  |                     |                     |
| <b>Conditions you would hire a doula<sup>a</sup></b> |             |                  |                     |                     |
| Health insurance coverage                            | 372 (73.2)  | .0023            | <.0001              | .0066               |
| Cost counted toward deductible                       | 257 (50.6)  | .0084            | .0443               | .0960               |
| Pay out of pocket                                    | 190 (37.4)  | .0152            | .0725               | .1082               |
| Would not hire a doula                               | 78 (15.4)   | .0008            | <.0001              | .4323               |
| <b>Ability to afford a doula</b>                     |             |                  |                     |                     |
| Yes  | 221 (43.5)  | .0901            | <.0001              | .3474               |
| No   | 185 (36.4)  | .1328            | <.0001              | .4211               |
| Unsure   | 97 (19.1)   | .0054            | .2306               | .5740               |
| N/A, missing   | 5 (1.0)     |                  |                     |                     |

*Note.* N/A = not applicable.

<sup>a</sup>Denotes respondents could choose more than one response; 501–503 total respondents per section excluding “N/A, missing.”



which was most prevalent in those earning U.S. \$50,000–\$74,999 (44/508; 8.7%).

## DISCUSSION

### *Overall Discussion*

The LAMBs is among the initial quantitative research studies to address doula care with three primary and focused research outcomes examining the need for doula care, interest in receiving doula care, and the perceived barriers to receiving doula care. Respondents in the LAMBs reportedly experienced high rates of interventions during birth, including cesarean surgeries. High rates of preterm birth, low infant birthweight, and limited social support during the postpartum period were also reported. Most respondents viewed doula care positively and indicated that receiving such care would increase their comfort during birth and confidence in giving birth. This study suggests that doula care is reasonable and acceptable to women as an adjunct to typical medical care, yet uncovered how the cost may prevent women from accessing doula care.

Women in this study reported a high rate of intervention use during birth, including inductions (41.9%), use of Pitocin (55.5%), intravenous fluids (66.9%), fetal heart rate monitoring (79.1%), and scheduled and unscheduled cesarean surgeries (11.4% and 27.8%, respectively). This is consistent with previous evidence indicating that women experience high rates of interventions, especially in the United States (Declercq et al., 2013; Taheri et al., 2018). Evidence suggests that doula care may increase rates of spontaneous vaginal birth, decrease the use of intrapartum analgesia, shorten labor, and decreases the risk of cesarean surgery and instrumental vaginal birth (Bohren et al., 2017). However, currently, only 6% of women give birth assisted by doula care (Declercq et al., 2013). This study highlights that women may benefit from education on what maternal and infant factors during pregnancy and labor constitute medical intervention and the role of a doula in helping to make evidence-based decisions in partnership with the woman and her provider.

Women often feel confused about the necessity for certain interventions and perceive they have limited control in the decision-making process (Declercq et al., 2013; Sanders & Crozier, 2018). Proportionally, women in this study felt less comfortable discussing birth plans with their providers compared to their family, friends, or

loved ones. Evidence suggests that doula care is one pathway to improve shared decision-making between the mother, maternal support system, and medical provider during birth (Bohren et al., 2019). Proportionally, it was also observed that fewer women perceived doula care to be beneficial for childbirth education and safety compared to physical and emotional support. Assessing a woman's decision-making process and the hierarchy of needs during pregnancy, birth, and postpartum should be further explored.

The social determinants of health are factors that can impact the overall health of an individual (Magnan, 2021). Most respondents reported factors that are protective against negative birth and health outcomes, such as middle-class income, higher education, and marital status. These factors themselves could increase the use of evidence-based practices during birth and, in turn, reduce the risk for poor birth outcomes through structured familial support and increased health literacy. In line with this notion, most of our study population reported being younger (26–35 years of age; 54.5%), currently married (88.2%), and earning a household wage/income (\$U.S.50,000–\$74,999 per year; 22.0%) above the global median income for a family household (Gallup, 2013). Conversely, respondents also reported having limited support during the postpartum period. Postpartum support is protective against maternal depression and can increase maternal satisfaction with birth (Prevatt et al., 2018). As such, doula care transcends into the postpartum period, which coalesces the pregnancy and birth continuum, and may be beneficial to women with limited social support postpartum.

Doula care is not covered under most health insurance policies (Chen, 2018). The mixed responses in this study based on the ability to afford doula care provide insight into reasons why women choose not to incorporate doula care. As evidence continues to support a positive association between doula care with maternal and infant health outcomes and the potential to lower birth-related health-care costs, there has been a push for both public and private insurers to cover doula care (Gomez et al., 2021). In this study, almost 40% of women reported being unable to afford doula care out-of-pocket; yet they indicated a willingness to receive doula care if insurance covered all (73.2%) or some (50.6%) of the costs. These

findings support that the cost is a major and influential barrier for women to receive doula care.

Importantly, as of 2023, there are no consistent or standardized state licensures or certifications for doula care practices or services. This is a challenging obstacle to overcome, as most states that leverage Medicaid for doula care coverage create restrictive pathways to proper training and certification requirements (Chen et al., 2020). As such, professional doulas require more support and guidance in order to navigate the challenging process of becoming Medicaid-approved providers (Chen & Robles-Fradet, 2022). In those states that permit Medicaid reimbursement for licensed doula care, reimbursement rates are insufficient, which, in turn, delays a broader implementation of doula care during pregnancy, birth, and the postpartum (Chen & Berquist, 2022a). Health insurance providers and policymakers need to recognize doulas as reimbursable providers and clear pathways for standardization of doula care licensure and certification are needed before doula care services are more widely accepted (DONA International, 2016; ICEA, n.d.; Rahman et al., 2022).

### ***Strengths and Limitations***

This study builds upon the current knowledge that doula care is both needed and appealing to women. This is especially true in the United States where access to health care is available and does not traditionally cover doula care services. As our survey was among the first to explore women's perceptions of the benefits and barriers of doula care, our findings bring a greater understanding of the precise needs of the targeted population. As support for doula care increases, monitoring opinions and the experiences of those utilizing doula care is critical. The LAMBs is the only known survey to directly ask women about the affordability of doula care, which revealed that most women find doula care unaffordable. Furthermore, the survey results highlight that even when protected factors are present, such as middle-class income, higher education, and marital status, that women's support during pregnancy and postpartum, relationships with providers, and social support remain insufficient.

It should be acknowledged that this study's findings are limited by its homogeneous sample of White/Caucasian, middle-class women. Despite

efforts to reach a broad group, this study failed to receive responses from a diverse sample that would allow for the examination of how the social determinant of health may impact outcomes. These findings therefore may not be generalizable and may not be applicable to other groups including women of underrepresented races, single mothers or those not engaged in a domestic partnership, or gender identity in addition to biological sex. Considering the increased risk of adverse maternal and birth outcomes for populations not well sampled within this study, efforts should be made to gather this information and future studies should consider methods that will ensure inclusion, such as targeting specific populations. Furthermore, the survey was not validated prior to implementation. However, as the survey was iteratively developed by content experts in reproductive endocrinology and women's health and guided by The Listening to Mothers III study, this concern was alleviated. Lastly, additional limitations are not providing open-ended options for answering questions, such as age, income, number of prior births, or time course from prior pregnancy to study enrollment and completion, for reporting self-evaluated barriers to incorporating doula care for qualitative analysis.

### **CONCLUSIONS**

The increased adoption of doula care in combination with standard medical care as a means to improve quality within the maternal care system is acceptable to reproductive-aged women. Yet, regardless of income level, doula care remains difficult to access due to cost. As doula care becomes a more commonly accepted means of proper maternal care during pregnancy, birth, and postpartum, focus should be placed on increasing knowledge of the benefits of utilizing and incorporating doula care across the entire prenatal and postpartum continuum. This may be particularly true in communities with health, race, and economic disparities where increased access to doula care may also increase utilization and, in turn, improve maternal and infant birth outcomes.

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## DISCLOSURE

The authors have no relevant financial interest or affiliations with any commercial interests related to the subjects discussed within this article.

## AUTHOR CONTRIBUTIONS

AWM and LMR developed the concept and designed the Labor and Matters of Birth survey (LAMBS). AWM and JRS drafted the manuscript. RAB, ADA, and SAB critically reviewed the manuscript. All authors approved the final version.

## ETHICAL APPROVAL AND CONSENT TO PARTICIPATE

All research involving human participants and data, including implemented methods, were performed in accordance with the Declaration of Helsinki and approved by the appropriate

ethics committee. Ethical approval was obtained from the Pennington Biomedical Research Center's Institutional Review Board prior to study commencement and online informed consent was received prior to allowed entrance into the LAMBs. Approval Number: FWA 00006218 and Approval Date: 10/13/2017.

#### **AVAILABILITY OF DATA AND MATERIALS**

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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