



North American Nurses' and Doulas' Views of Each Other

Louise Marie Roth, Megan M. Henley, Marla J. Seacrist, and Christine H. Morton

Correspondence

Marla J. Seacrist, PhD,
School of Nursing,
California State University,
Stanislaus, One University
Circle, Turlock, CA 95382.
mseacrist@csustan.edu

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ABSTRACT

Objective: To analyze factors that lead nurses and doulas to have positive views of each other.

Design: A multivariate analysis of a cross-sectional survey, the Maternity Support Survey.

Setting: Online survey with labor and delivery nurses, doulas, and childbirth educators in the United States and Canada.

Participants: A convenience sample of 704 labor and delivery nurses and 1,470 doulas.

Methods: Multiple regression analysis was used to examine five sets of hypotheses about nurses' and doulas' attitudes toward each other. Scales of nurses' attitudes toward doulas and doulas' attitudes toward nurses included beliefs that nurses/doulas enhance communication, are collaborative team members, enhance a woman's birth experience, interfere with the ability to provide care, or interfere with relationships with the women for whom they care.

Results: For nurses, exposure to doulas in their primary hospitals was associated with more positive views, whereas working more hours, feeling overworked, and a preference for clinical tasks over labor support were associated with more negative views of doulas. For doulas, working primarily in one hospital and certification were associated with more positive views of nurses. Nurses with more positive attitudes toward common obstetric practices had more negative attitudes toward doulas, whereas doulas with more positive attitudes toward common obstetric practices had more positive attitudes toward nurses.

Conclusion: Our findings show factors that influence mutual understanding and appreciation of nurses and doulas for each other. These factors can be influenced by educational efforts to improve interprofessional collaboration between these maternity care support roles.

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Louise Marie Roth, BA, MPhil, PhD, is an associate professor in the School of Sociology, University of Arizona, Tucson, AZ.

Megan M. Henley, PhD, is an assistant professor in the Department of Social and Behavioral Sciences, Colorado Mesa University, Grand Junction, CO.

Marla J. Seacrist, PhD, is an associate professor in the School of Nursing, California State University, Stanislaus, Turlock, CA.

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Labor support is an important source of emotional and physical comfort for women during childbirth that leads to shorter labor, fewer cesareans, increased breastfeeding, and greater satisfaction with the birth (Barrett & Stark, 2010; Flamm, Berwick, & Kabcenell, 1998; N. P. Gordon et al., 1999; Hodnett, Gates, Hofmeyr, & Sakala, 2012; McGrath & Kennell, 2008). Labor support includes emotional and physical support, information, advice, and advocacy (Bianchi & Adams, 2004; Deitrick & Draves, 2008; Rosen, 2004). In the contemporary United States and Canada, one or more family members or friends may act as support persons. Labor and delivery (L&D) nurses or doulas can also provide labor support as maternity support workers (MSWs). Multiple sources of labor support can complement each other and make collaboration in labor support more than the sum of its parts (Deitrick & Draves, 2008; Morton, Seacrist, Torres, & Heidbreder, 2015; Rosen, 2004; Torres, 2015).

Understanding the factors that influence labor nurse and doula attitudes toward each other can inform efforts to increase teamwork among these roles and possibly contribute to improved maternity outcomes.

Nearly 99% of births in the United States and Canada take place in hospitals, where patient support and care typically fall on L&D nurses (Martin, Hamilton, Osterman, Curtin, & Matthews, 2013; Statistics Canada, 2013). In the hospital setting, L&D nurses are somewhat restricted in their ability to provide supportive care, because hospitals in the United States and Canada are not always able to provide one-to-one nursing care during labor (Ballen & Fulcher, 2006; Barrett & Stark, 2010). In fact, hospitals may not follow the staffing guidelines of professional nursing organizations that specify when laboring women should receive one-to-one care (Association of Women's Health, Obstetric and Neonatal

Nurses, 2010). As a result, teamwork with other MSWs such as doulas can increase levels of support for women in labor.

Partly in response to medicalized care and the increased technological and documentation tasks required of L&D nurses, the doula emerged as a specific labor support role over the last 35 years (Morton & Clift, 2014). Doulas currently attend approximately 5% to 6% of all U.S. births (Declercq et al., 2013). The percentage of women who use doulas in Canada is unknown. Doulas provide continuous labor support for women, and most work in hospital settings, although they usually are not employed directly by hospitals; some have formal institutional roles (Lantz, Low, Varkey, & Watson, 2005). Doulas are not regulated or licensed, and there are no universally accepted standards for doula certification, academic preparation, training, or practice (Morton & Clift, 2014). As a result, when doulas accompany women in the hospital, they must work with maternity clinicians, including L&D nurses, with whom they share some overlapping roles and tasks (Henley, 2015; Torres, 2013). Although doulas often work alongside nurses as they provide labor support, little is known about how nurses and doulas view each other's roles (Morton & Clift, 2014).

Theoretical Framework

Several frameworks informed this study, including social identity theory, theories about professional culture, and professional centrism. In social identity theory, personal identity combines with a group identity, where norms and attitudes of other members are shared (Tajfel, 1981). Individual group members learn to see themselves through the lens of the group identity. Social identity theorists focus on how the group is expressed within the individual rather than how individuals act within groups (Pecukonis, Doyle, & Bliss, 2008). Like those in many occupations, MSWs often identify with their specific role as nurses or doulas, with the associated unique norms and attitudes.

We expanded the notion of social identity and situated it within the construct of professional culture. Each health discipline has its own professional culture that determines core values, customs, symbols, meanings, and definitions of health, wellness, and treatment success (Pecukonis, 2014; Pecukonis et al., 2008). Professional culture also defines power distributions

Understanding labor nurses' and doulas' attitudes toward each other may help increase teamwork and improve maternity outcomes.

within the work environment, relationships among team members, and conflict resolution (Pecukonis et al., 2008). In maternity support work, professional cultures, in concert with social identity, shape the values and beliefs of L&D nurses and doulas.

Within the construct of professional culture is the concept of professional centrism. Similar to ethnocentrism, professional centrism is a preferred view of the world held by a particular occupational group; unfortunately, professional centrism leads to biased thinking that is based on stereotypes and prejudices (Pecukonis et al., 2008). When one professional group views their profession as more central or important than that of another group, this can negatively influence interdisciplinary cooperation.

Background

L&D nurses are institutionally embedded clinical practitioners who focus on and monitor the health and well-being of laboring women and their fetuses (Morton & Clift, 2014). Nurses have multiple responsibilities: they must follow institutional policies and implement providers' orders while they care for several patients (Morton et al., 2015). As hospital employees, L&D nurses often face constraints in their provision of labor support because of staffing patterns, documentation responsibilities, and/or barriers within the hospital culture (Barrett & Stark, 2010; Gilliland, 2011; Rosen, 2004). L&D nurses might react to these challenges by embracing doulas, although one study of a hospital-based doula program found that although nurses appreciated the doula's presence, they often did not fully understand the doula role or see it as distinct from the supportive role of friends or family (Deitrick & Draves, 2008).

Doulas occupy a tenuous place in hospital-based birth because of their lack of integration in institutional settings (Norman & Rothman, 2007; Torres, 2013). Most doulas are hired directly by, and primarily accountable to, pregnant women rather than institutions or their policies (Morton & Clift, 2014). Some doulas, however, are more embedded in hospital settings than others. Doulas who work primarily at one hospital are likely to develop relationships with the L&D

Christine H. Morton, PhD, is a research sociologist in the Department of Pediatrics, Stanford University School of Medicine, Palo Alto, CA.

nursing staff that may improve the attitudes of nurses and doulas toward each other (i.e., the exposure effect; Deitrick & Draves, 2008; Grush, 1976; Zajonc, 1968). In psychology, the *exposure effect* refers to the idea that mere repeated exposure of individuals to the same stimulus will enhance their attitudes toward it (Akhavan & Lundgren, 2012; Zajonc, 1968). It follows that L&D nurses with repeated exposure to doulas would develop more positive attitudes toward them.

Doulas vary in their level of professionalization, and many doulas obtain voluntary certification (Henley, 2015; Morton & Clift, 2014; Roth et al., 2014). Certification typically requires doulas to agree to practice within the parameters of their certifying organization, which may increase their legitimacy among maternity clinicians (Henley, 2015; Morton & Clift, 2014). Certified doulas may also be more likely to respect boundaries between their role and that of nurses and may be more open to building positive relationships with clinicians (Henley, 2015).

Educational strategies can improve L&D nurses' and doulas' familiarity with each other's scope of practice (Gilliland, 2002). Advice about how to improve L&D nurse–doula collaboration includes a recommendation for nurses to explain the sequence of events to doulas, both at admission and again before any procedures (Bowers, 2002; Tumblin & Simkin, 2001). However, this advice requires a substantial time commitment, and overworked nurses may find it difficult to follow. This situation is exacerbated by the fact that many doulas tend to be relatively inexperienced, because the on-call doula lifestyle and the intense emotional nature of the work are difficult to sustain (Morton & Clift, 2014).

Attitudes

An *attitude* is a settled way to think or feel about someone or something. Most attitudes are socially learned, and group membership has a strong influence on attitudes (Hogg, 2006; Hogg, 2012). Doula training is heavily influenced by the midwifery model of care that promotes normal (physiologic) birth. Study findings indicate that doulas tend to be critical of nonmedically indicated interventions in childbirth (Basile, 2012; Morton & Clift, 2014; Norman & Rothman, 2007; Stevens, Dahlen, Peters, & Jackson, 2011). In contrast, most nurses have training and experience in standard hospital-based models of obstetric care. There is some evidence that

nurses with more experience hold more positive attitudes toward labor support and more negative views of technology and interventions than less experienced nurses (Carlton, Callister, Christiaens, & Walker, 2009; James, Simpson, & Knox, 2003; Sleutel, Schultz, & Wyble, 2007). However, Liva, Hall, Klein, and Wong (2012) found weak or no relationship between L&D nurses' years of experience and attitudes toward birth practices (Liva et al., 2012).

Hypotheses

Based on the literature review and theoretical framework, we tested five main hypotheses about L&D nurses' and doulas' views of each other. First, doulas who work primarily in one hospital, earn more from doula work, and/or are certified will have more positive views of nurses. Second, nurses who work in hospitals where doulas attend a higher percentage of births and those with more years of experience will have more positive views of doulas. Third, nurses who work more hours, attend more births per shift, and feel overworked will have more negative views of doulas. Fourth, nurses who value labor support as much as, or more than, clinical tasks involved in the observation and treatment of their patients will have more positive views of doulas. Finally, nurses with more positive attitudes toward typical obstetric protocols will have more negative views of doulas, whereas doulas with more positive attitudes toward typical obstetric protocols will have more positive views of nurses.

Methods

Design, Sample, and Procedures

Data for this study came from the Maternity Support Survey (MSS), a cross-sectional online survey of L&D nurses, doulas, and childbirth educators in the United States and Canada. The survey recruited participants between November 2012 and March 2013 through each occupation's professional associations. The organizations for nurses were the Association of Women's Health, Obstetric and Neonatal Nurses and the Canadian Nurses Association. The doula organizations were DONA International, Health Connect One, toLABOR (formerly ALACE), Childbirth and Post-Partum Professional Association Canada, and Doula C.A.R.E. (Canada). We also recruited childbirth educators through Lamaze International, International Childbirth Education Association, Birthing from Within, and BirthWorks. The professional organizations e-mailed their current members a recruitment letter with a link to the

survey, which was followed by up to two reminders. The research team also publicized the survey to other L&D nurses, doulas, and childbirth educators via social media (Facebook, Twitter, and maternity blogs) and e-mail networks. The survey collected no personal identifiers, and the institutional review board at the University of Arizona determined the study to be exempt. A total of 3,325 respondents started the survey, and 2,781 completed it, for a completion rate of 83.6%. For this analysis, we excluded respondents who worked exclusively as childbirth educators, because they were unlikely to provide active labor support.

Measures

The survey consisted of questions about demographic characteristics, training and credentials in the maternity support field, sources of information and knowledge about birth, financial rewards of maternity support work, childbirth and breastfeeding experience, attitudes toward common labor practices and breastfeeding, attitudes toward other maternity support roles, work experiences including ethical challenges, work satisfaction and burnout, hospital characteristics, understandings of informed consent, experiences with and knowledge of quality improvement initiatives, and questions specific to each maternity support role (Roth et al., 2014). Demographic characteristics included age, level of education, race/ethnicity, household income, and marital/partner status (married/partnered = 1). More than 99.5% of respondents identified as female, so we excluded sex from the models because of lack of variance. We examined regional effects for Canada and the Northeastern, Midwestern, Southern, and Western census regions in the United States. The multivariate models omitted the indicator for West as the reference category.

Measures of nurses' maternity support position included the percentage of births at their primary hospital that have doula support, years of nursing experience, hours of work per week, estimated average number of births per 10 hours worked, feelings of overwork, and the enjoyment of labor support. Measures of doulas' maternity support position included indicators for certification and whether they worked primarily at one hospital.

Attitudinal Scales

The MSS measured attitudes with five-point Likert scales from 1 (*strongly disagree*) to 5 (*strongly agree*). We standardized the scales for attitudes

toward epidural analgesia, induction, and cesarean birth with ranges of 0 to 10, ranked from extremely negative to extremely positive, to make these scales comparable across obstetric practices. We also constructed two scales measuring nurses' attitudes toward doulas and doulas' attitudes toward nurses. Each of these scales aggregates five attitudes, measured from 1 to 5. We subtracted 5 from the scales to standardize the range from 0 to 20, with a value of 0 representing a strongly negative view and a value of 20 representing a strongly positive view.

Data Analysis

We treated scores on nurses' and doulas' attitudes toward each other as continuous dependent variables for this analysis and conducted ordinary least squares (OLS) multiple regression analysis with robust standard errors. Although our models exhibited very strong conformity with OLS assumptions, robust standard errors adjust for a collection of minor concerns about failure to meet OLS assumptions and converge to simple standard errors when error terms are homoscedastic (R. A. Gordon, 2010). Simple standard errors were nearly identical, and the use of robust standard errors did not change the significance of the coefficients.

The models examined the linear relationship between independent variables (predictors) and attitudes toward nurse–doula collaboration. Predictors included demographic controls (age, education, race, household income, marital status), region (West = reference), and the scales of attitudes toward the common obstetric practices of epidural analgesia, induction, and cesarean birth (Table 1). For the model of doulas' attitudes toward nurses, we included indicators for certification and for working primarily in one hospital as measures of doulas' institutional embeddedness. For the model of nurses' attitudes toward doulas, we included percentage of births with a doula in attendance at their primary hospital, years of nursing experience, hours worked per week, average number of births per 10 hours of work, and an indicator for feeling overworked. To include the measure of doula exposure, we had to exclude nurses who did not work primarily at one hospital from the model. We coded nurses who indicated that they enjoyed labor support as much as or more than clinical tasks as enjoying labor support.

Although the total sample included 1,569 doulas and 1,012 nurses, there were 161 (6.2%) surveys

Table 1: Means and Standard Deviations of Scores on Attitudinal Scales

Scale	Doulas (<i>n</i> = 1,470)	L&D Nurses (<i>n</i> = 704)	Cronbach's α
	<i>M</i> \pm <i>SD</i>	<i>M</i> \pm <i>SD</i>	
Epidural analgesia (0–10)	2.40 \pm 1.44	5.42 \pm 2.04	.80
Induction (0–10)	1.67 \pm 1.33	3.56 \pm 1.73	.67
Cesarean (0–10)	1.56 \pm 1.03	2.53 \pm 1.33	.71
Doula views of nurses (0–20)	12.95 \pm 3.15	—	.86
Nurse views of doulas (0–20)	—	12.95 \pm 3.15	.91

Note. We did not compute significance tests for differences of means between doulas and nurses because some respondents are included in both groups. L&D = labor and delivery.

with missing values on relevant variables (99 doulas and 62 nurses). We used listwise deletion for missing data after we compared missing with nonmissing surveys: there were no significant differences in the dependent variables, and a few very small differences in the independent variables. We also excluded 246 nurses who did not work primarily at one hospital. Thus, the analyses include 1,470 doulas and 704 nurses. Using a power analysis for multiple regression, we determined the minimum sample sizes to estimate a medium effect size with an alpha of .05 using 18 predictor variables (doula model) or 20 predictor variables (nurse model), to be 149 and 156, respectively, using an online calculator (Soper, 2016). The sample sizes for the models were significantly larger than these minimum sizes, and had greater than 99% power to reject the null hypothesis if a relationship was present.

Results

Scale Consistency

The descriptive statistics and Cronbach's alpha scores for each attitudinal scale, including the dependent variables, are illustrated in Table 1. The scales with the weakest internal reliability were those for attitudes toward induction and cesarean birth. However, following Liva et al. (2012), we retained these scales because a Cronbach's alpha near .7 is common for attitudinal scales, and attitudes about standard obstetric practices are theoretically relevant for attitudes about nurse–doula relationships (Kline, 2000). The scale for attitudes toward epidural analgesia had moderate internal consistency reliability, and the internal consistency reliability of both dependent variable scales was strong ($\alpha = .91$ for nurses' attitudes toward doulas and $\alpha = .86$ for doulas' attitudes toward nurses). As a

robustness check, we conducted a principal components factor analysis, which is a method of data reduction that seeks underlying, unobservable (latent) variables that the observed variables reflect. For both dependent variable scales, this extracted a single factor that explained a substantial amount of the variance in the five independent measures and provided additional evidence that the five measures captured a single underlying construct.

Sample Characteristics

Descriptive statistics and metrics for all predictors in the regression analysis are presented in Table 2. The average age of participants was 47 years for L&D nurses and 40 years for doulas. Most respondents were White, with 94.7% of nurses and 93% of doulas in this category. Nurses had more education and higher household incomes than doulas, on average. Nurses had an average of 21.5 years of experience, worked an average of 31 hours per week, and attended an average of 1 birth per 10 hours of work. Most (93%) nurses indicated that they enjoyed labor support at least as much as clinical tasks. Among doulas, most were certified (69%), and about one quarter (26%) worked primarily in one hospital. In general, nurses were slightly more positive toward induction than doulas, considerably more positive toward epidural analgesia, and somewhat more positive toward cesarean, although both groups tended to have negative views of cesarean.

Multivariate Regression Models

The results of OLS regression models for nurses' attitudes toward doulas and doulas' attitudes toward nurses are presented in Table 3. Most demographic characteristics had no significant effect on their views of each other, except that

Table 2: Individual and Job-Related Characteristics of Doulas and Nurses

Characteristic	Doulas (<i>n</i> = 1,470)	L&D Nurses (<i>n</i> = 704)
	<i>M</i> ± <i>SD</i>	<i>M</i> ± <i>SD</i>
Age in years	40.44 ± 11.76	47.08 ± 10.98
Births with a doula, %	—	6.26 ± 8.14
Nursing experience in years	—	21.47 ± 11.58
Nursing hours per week	—	31.20 ± 14.54
Estimated births per 10 hours of work, <i>n</i>	—	1.00 ± 0.99
	<i>n</i> (%)	<i>n</i> (%)
Married	1,014 (69.0)	506 (71.9)
Education		
High school or less	59 (4.0)	0 (0)
Some college/associate degree	532 (36.2)	177 (25.1)
Bachelor's degree	612 (41.6)	367 (52.1)
Master's degree	232 (15.8)	151 (21.5)
Doctorate	35 (2.4)	9 (1.3)
Race/ethnicity		
Non-Hispanic White	1,367 (93.0)	667 (94.7)
Household income		
<\$20,000	103 (7.0)	3 (0.4)
\$20,000–\$34,999	176 (12.0)	8 (1.1)
\$35,000–\$49,999	249 (16.9)	28 (4.0)
\$50,000–\$74,999	339 (23.1)	126 (17.9)
\$75,000–\$99,999	273 (18.6)	179 (25.4)
\$100,000–\$149,999	211 (14.4)	234 (33.2)
\$150,000+	119 (8.1)	126 (17.9)
Region		
Northeast	248 (16.9)	122 (17.3)
Midwest	279 (19.0)	160 (22.7)
South	275 (18.7)	180 (25.6)
West (reference)	384 (26.1)	155 (22.0)
Canada	222 (15.1)	59 (8.4)
Features of maternity support position		
One hospital	385 (26.2)	—
Doula certification	1,019 (69.3)	—

(Continued)

Table 2: Continued

Characteristic	Doulas (<i>n</i> = 1,470)	L&D Nurses (<i>n</i> = 704)
	<i>M</i> ± <i>SD</i>	<i>M</i> ± <i>SD</i>
Works more than desired (1 = yes)	—	181 (25.7)
Enjoys labor support	—	652 (92.6)

Note. We did not compute significance tests for differences of means or proportions between doulas and nurses because some respondents are included in both groups. L&D = labor and delivery.

higher education and household income were associated with slightly more positive views of nurses among doulas ($p < .1$). In contrast, nurses with higher household incomes had more negative views of doulas. Older nurses had more positive views of doulas when we controlled for their years of nursing experience. Although age and years in nursing were correlated, this did not appear to present problems of multicollinearity, so we retained both variables in the models.

For doulas, working primarily at one hospital and being certified had significant positive effects on their views of nurses. This partially supported our first hypothesis, that more institutionally embedded doulas would have more positive relationships with nurses. The results also largely supported our fifth hypothesis, that doulas with more positive attitudes toward common obstetric practices would have more positive views of L&D nurses, specifically with respect to epidural analgesia and induction. There were also regional effects, and doulas in the Northeastern or Southern United States or in Canada had significantly more negative views of nurses than doulas in the Western United States. Overall, the variables in this model explained approximately 8% of the variance in doulas' views of their relationships with nurses, as indicated by the R^2 statistic.

In Table 3, the model of nurses' views of doulas had stronger explanatory power, explaining approximately 25% of the variance. This model partially supported our second hypothesis, that more exposure to doulas would be associated with more positive views, although it failed to support the prediction that more years of nursing experience would be associated with more positive views of doulas. There was also support in

Table 3: Unstandardized OLS Regression Coefficients for Doula and Nurse Attitudes Toward Each Other

Characteristic	Doulas (<i>n</i> = 1,470)	L&D Nurses (<i>n</i> = 704)
	<i>b</i> (Robust <i>SE</i>)	<i>b</i> (Robust <i>SE</i>)
Intercept	10.87*** (0.53)	15.26*** (1.65)
Age	0.003 (0.01)	0.05 [†] (0.02)
Education	0.16 [†] (0.09)	0.12 (0.19)
White	−0.01 (0.30)	0.59 (0.68)
Household income	0.09 [†] (0.05)	−0.32** (0.12)
Married	−0.18 (0.21)	0.15 (0.37)
Region		
Northeast	−0.57* (0.24)	−0.38 (0.45)
Midwest	0.18 (0.23)	0.86* (0.41)
South	−0.56* (0.23)	0.02 (0.43)
Canada	−0.78* (0.30)	−0.83 (0.66)
One hospital	0.58** (0.19)	—
Doula certification	0.37* (0.18)	—
% Births with a doula	—	0.10*** (0.02)
Nursing experience	—	−0.03 (0.02)
Nursing hours per week	—	−0.02* (0.01)
Births per 10 hours	—	−0.23 (0.16)
Works more than desired	—	−0.63 [†] (0.35)
Enjoys labor support	—	1.10 [†] (0.57)
Positive about epidurals	0.33*** (0.06)	−0.47*** (0.10)
Positive about induction	0.24*** (0.07)	−0.21* (0.10)
Positive about cesareans	−0.05 (0.08)	−0.54*** (0.12)
<i>R</i> ²	0.08***	0.25***

Note. L&D = labor and delivery; OLS = ordinary least squares. [†]*p* < .10. **p* < .05. ***p* < .01. ****p* < .001.

this model for the third hypothesis, that overworked nurses would be less favorable toward doulas, because working more hours per week and working more than they want to work had significant negative effects. However, the number of births per 10 hours of nursing work did not have a significant effect on nurses' views of doulas. In support of the fourth hypothesis, nurses who enjoyed labor support as much as, or more than, clinical tasks had a more positive view of doulas. Because 93% of nurses indicated that they enjoyed labor support at least as much as clinical tasks, this may say more about nurses who prefer clinical tasks having negative views of

doulas than it does about the vast majority who enjoy labor support. In support of the fifth hypothesis, we observed the opposite effect of attitudes toward common labor practices for nurses versus doulas: all else being equal, nurses with more positive views of epidural analgesia, induction, and cesarean birth had significantly more negative views of doulas.

Discussion

Through our study we showed that nurses who worked with doulas more often and nurses who valued labor support had more favorable views of doulas. Additionally, doulas who attended more births and who were certified had more positive attitudes toward nurses. Doulas who were certified may have had more appreciation of nursing knowledge, skill, span of control, and legitimacy in the practice setting. Familiarity and experience with each other's roles may partially explain our findings. Although not an explicit area of investigation in our study, our findings suggest a need to better comprehend how mutual understanding and appreciation of the roles and contributions of each discipline improves interdisciplinary practice, collaboration, and outcomes in the birth setting (Pecukonis et al., 2008).

The single most intractable barrier to interprofessional education and collaboration is professional centrism or professional culture (Pecukonis, 2014). Our finding that labor nurses and doulas did not share the same attitudes toward one another indicates that some turf issues still exist (Pecukonis, 2014). Although each occupation has its own culture, collaboration has been shown to improve interdisciplinary practice and, in turn, reduce professional centrism (Pecukonis et al., 2008). Because certified doulas had more favorable attitudes toward nurses, it is likely that their certification process provided interdisciplinary education and encouraged collaborative values (Henley, 2015). In contrast, nurses who were overworked (attended more births) had more negative attitudes toward doulas. Although we suspect that the negativity might come from having too little time to spend with less experienced doulas, overworked nurses might also have viewed the presence of a doula as a disruption to routine nursing care. Although it might seem counterintuitive that overworked nurses would perceive doulas' labor support activities as an increase to their workload, it is possible that nurses with unfavorable views of doulas saw them as one more maternity team

member to direct, collaborate with, and get reports from, thus adding to their work.

Household income is a measure of socioeconomic status, and it is possible that doulas with higher socioeconomic status knew more nurses in their nonprofessional social networks or viewed them as socioeconomic equals. The opposite may have been the case for nurses: nurses with higher socioeconomic status may have known fewer doulas outside of their professional life.

Of interest were the contrasting effects of attitudes toward typical obstetric practices on nurses' and doulas' views of each other. Nurses who expressed favorable attitudes toward obstetric procedures reported more negative attitudes toward doulas, possibly viewing them as impediments to smooth protocol implementation. Doulas who had a more favorable attitude toward administration of oxytocin and epidurals had more positive attitudes toward nurses, suggesting greater overall comfort with typical labor management in hospitals. Our results suggest that the differences in attitudes toward obstetric procedures in nurses' and doulas' professional cultures constrained nurse–doula collaboration. Further exploration of the factors that constrain and facilitate nurse–doula collaboration is needed to assess the effects of collaboration on women's birth experiences and outcomes.

Our findings also suggest the need for additional metrics to capture the effects of structural and process factors that facilitate or constrain nurse–doula collaboration, such as the presence or absence of hospital policies that outline expectations or requirements on doulas' practice within the facility. Several dimensions of nurse–doula collaborative relationships could be measured to assess their effect on experiences and outcomes of hospital-based childbirth. Some of the collected data might include the following:

- The practice of mutual introductions that occur in the presence of the woman in labor
- A priori agreement by nurses and doulas to show mutual respect and professionalism in verbal and nonverbal communications with one another
- Debriefs, with mutual evaluation of key communication, behavioral, and outcome data for hospital births at which a nurse and doula were present
- Participation in role-specific workshops that aim to clarify doula roles and demonstrate

The finding that labor nurses and doulas do not share the same attitudes toward one another indicated that some turf issues still exist.

labor support techniques to nurses and show nursing scope and goals of practice to doulas

- One-on-one shadowing among newly trained L&D nurses and doulas to learn the other's role and compare and contrast with their own role
- Attendance at joint educational conferences between nursing and doula organizations

Limitations

The MSS was a cross-national survey to examine the understudied roles and views of L&D nurses and doulas in the United States and Canada, and the survey obtained a large number of responses from MSWs. A limitation of the study was that recruitment methods resulted in a nonrandom sample, so responses may not be generalizable to all L&D nurses and doulas in the United States and Canada. This sampling method also precluded our ability to calculate a response rate, because we did not have a denominator. More specifically, most respondents were members of professional organizations that assisted with the study, but many MSWs, especially L&D nurses, are not members of these specific organizations and thus were reached through the social media recruitment methods previously described.

Additionally, the models explained only a small (8%) to moderate (25%) amount of the variance in nurses' and doulas' attitudes toward each other. On one hand, data always contain some variation due to individual variation and random chance. However, there also are unmeasured traits that may influence nurses' and doulas' attitudes toward each other, including personality (agreeableness, openness to others, flexibility), confidence in one's own practice, and previous good or bad experiences with nurses or doulas. Future research on nurse–doula relationships should measure and analyze additional variables that may influence these MSWs' views of each other.

Conclusion

The results from the MSS showed factors that influence positive attitudes of nurses and doulas toward each other, including having had more experience working together. With national efforts

Additional metrics are needed to capture the effect of factors that facilitate or constrain nurse–doula collaboration.

underway to address worsening maternity outcomes in both countries, particularly high primary cesarean rates, interprofessional communication and collaboration are essential to enhance patient safety and satisfaction (Lyndon et al., 2015). Meta-analyses continue to identify doulas as one of the most effective components among efforts to provide continuous labor support, which in turn has been shown to reduce cesarean births (American College of Obstetricians and Gynecologists & Society for Maternal-Fetal Medicine, 2014; Berghella, Baxter, & Chauhan, 2008). As a result of this research, a collegial and collaborative nurse–doula relationship has been identified as a strategy for hospitals to consider in their efforts to reduce primary cesareans (Smith, Peterson, Lagrew, & Main, 2016). Even when nurses desire and know how to provide hands-on labor support, they are often unable to do so because of workplace constraints, such as documentation tasks, ineffective staffing patterns, institutional policies, and professional centrism (Barrett & Stark, 2010; Gilliland, 2002; Gilliland, 2011; Rosen, 2004). Although doulas may have more knowledge of physiologic labor support techniques, they lack a clinical perspective and awareness of when medical interventions are indicated and when non-pharmacologic pain relief and continuous support must be supplemented with skilled professional care.

Through our study we identified factors that affect whether nurses will have positive views of doulas, including certification. Numerous organizations offer doula certification, yet doula practice is a nonlicensed occupation with no governing body or regulatory college. Although more positive about doulas who are certified, nurses see many types and styles of doulas, and they witness doula practice variation and its effect in the clinical care setting, which also may account for variation in views on doulas. Our findings showed that not all L&D nurses enjoy the labor support component of their role and prefer technical tasks. Attitudinal scales have been developed to measure nurses' views and beliefs on many aspects of labor and childbirth but have not yet examined whether these attitudes are reflected in nursing practice

(Levine & Lowe, 2015). L&D managers may find it useful to administer attitudinal scales to their staff to understand nursing attitudes and use this information when they design continuing education curricula. Professional associations can educate and train their members on the value of nurse–doula collaboration, and individual nurses and doulas can model collaborative behavior in each encounter with one another. The optimization of maternal–infant outcomes is a shared goal of nurses and doulas, and improved collaboration among all MSWs will help achieve this goal.

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