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Perinatal Nurses' Experiences With and Knowledge of the Care of Incarcerated Women During Pregnancy and the Postpartum Period

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Abstract

Objective: To describe perinatal nurses' experiences of caring for incarcerated women during pregnancy and the postpartum period; to assess their knowledge of the 2011 position statement *Shackling Incarcerated Pregnant Women* published by the Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN); and to assess their knowledge of their states' laws regulating nonmedical restraint use, or shackling, of incarcerated women.

Design: Cross-sectional survey.

Setting: Online across the United States.

Participants: AWHONN members who self-identified as antepartum, intrapartum, postpartum, or mother-baby nurses ($N = 923$, 8.2% response rate).

Methods: A link to an investigator-developed survey was e-mailed to eligible AWHONN members ($N = 11,274$) between July and September 2017.

Results: A total of 74% ($n = 690$) of participants reported that they cared for incarcerated women during pregnancy or the postpartum period in hospital perinatal units. Of these, most (82.9%, $n = 566$) reported that their incarcerated patients were shackled *sometimes* to *all of the time*; only 9.7% reported ever feeling unsafe with incarcerated women who were pregnant. "Rule or protocol" was the most commonly endorsed reason for shackling. Only 17.0% ($n = 157$) of all

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participants knew about the AWHONN position statement, and 3% ($n = 28$) correctly identified the conditions under which shackling may ethically take place (risk of flight, harm to self, or harm to others). Only 7.4% ($n = 68$) of participants correctly identified whether their states had shackling laws.

Conclusion: Our results suggest critical gaps in nurses' knowledge of professional standards and protective laws regarding the care of incarcerated women during pregnancy. Our findings underscore an urgent need for primary and continuing nursing education in this area.

Keywords

bioethics and legal issues; childbirth; nursing care; patient safety; pregnancy; prisoners; prisons; women

A significant number of women are incarcerated in the United States. U.S. prisons and jails held approximately 213,000 women at the end of 2016 (Carson, 2018; Zeng, 2018), and this number represented approximately one third of the world's incarcerated women at that time (Walmsley, 2017). The number of women incarcerated in the United States has risen 700% since 1980 (Sentencing Project, 2018). Prisons hold people convicted of crimes and sentenced to at least a year of incarceration. Most women in U.S. prisons were convicted of property, drug, or public order crimes (Carson, 2018). For women, the average length of time served in prison is 18 months (Bonczar, 2011). In contrast, jails hold accused and convicted people for shorter periods of time. Most women in U.S. jails are pretrial detainees (Minton & Zeng, 2016; Swavola, Riley, & Subramanian, 2016), and, thus, they have not been convicted of any crime.

An estimated three fourths of incarcerated women are of reproductive age (Carson & Anderson, 2016), and approximately 60% of women in prison (Glaze & Maruschak, 2010) and 94% of women in jail (Kelly, Peralez-Dieckmann, Cheng, & Collins, 2010) are estimated to already have minor children. No reliable or recent national estimates exist related to pregnancy and birth during incarceration. The best estimates suggest that 3% to 4% of women in U.S. prisons (Maruschak, 2008) and 5% of women in U.S. jails (Maruschak, 2006) are pregnant at the time of their incarcerations. However, these estimates are imprecise because of a lack of standardized pregnancy testing and reporting across facilities (Sufrin, Kolbi-Molinas, & Roth, 2014). Available statistics may underestimate the number of women who are pregnant during incarceration.

Incarcerated women who are pregnant are at greater risk for adverse perinatal outcomes. A portion of this risk comes from health and social issues present before incarceration. Compared with women who live in the community, incarcerated women are more likely to have lived in poverty (Rabuy & Kopf, 2015), to have histories of lifetime trauma exposure (Grella, Lovinger, & Warda, 2013), to have HIV infection (Centers for Disease Control and Prevention, 2017), and to have mental illness (Fazel, Hayes, Bartellas, Clerici, & Trestman, 2016) or substance use disorders (Fazel, Yoon, & Hayes, 2017). Black women, incarcerated or not, are more likely to experience disparities in perinatal health outcomes (Holdt Somer, Sinkey, & Bryant, 2017). Because of institutionalized racism in the criminal justice system, they are also more likely than women of other racial or ethnic backgrounds to face

incarceration (Bailey et al., 2017; Sentencing Project, 2018; Swavola et al., 2016). Once incarcerated, women are housed in jails and prisons that are designed to confine and punish, not to safely care for women during pregnancy. Although the American College of Obstetricians and Gynecologists (ACOG; 2016) developed recommendations for perinatal health care tailored for incarcerated women, results of national surveys showed that care within most U.S. prisons and jails does not adhere to ACOG standards (Ferszt & Clarke, 2012; Kelsey, Medel, Mullins, Dallaire, & Forestell, 2017).

While in custody during pregnancy and the post-partum period, women may receive health care outside of prisons or jails. Depending on the capacity of the facilities in which they are incarcerated, women may be transported to health care settings in the community for routine or high-risk prenatal care, laboratory testing, ultrasonography, and obstetric emergencies (Chari, Simon, DeFrances, National Center for Health Statistics, & Maruschak, 2016). Incarcerated women must also be taken to hospital perinatal units for birth. These moments of interface of incarcerated women with health care providers and systems in the community are important for nurses to understand. Nurses who have not chosen to work in a prison or jail may nonetheless be responsible for the provision of care for incarcerated women during these times.

Nonmedical restraints, or shackles, may be applied by corrections officers to women's hands, feet, or abdomens during transport and the entire stay outside of a prison or jail (National Resource Center on Justice Involved Women, 2016). Shackling, as a "procedure that prevents a person's free body movement to a position of choice and/or normal access to his/her body by the use of any method, attached or adjacent to a person's body that he/she cannot control or remove easily" (Bleijlevens, Wagner, Capezuti, & Hamers, 2016, p. 2309), fits the technical definition of physical restraint developed by the International Physical Restraint Workgroup. Shackles differ from other physical restraints used in the clinical setting because prison or jail staff, rather than clinical staff, control the application and release of the shackles. For this reason, the term *shackles* and not *restraints* will be used throughout this article.

Similar to physical restraints that are controlled by clinical staff, shackles that are controlled by prison and jail staff can cause serious patient harm. The use of shackles carries unique safety risks for women during pregnancy and, by extension, for their fetuses. These safety risks include the potential for injury or placental abruption caused by falls, delayed progress of labor caused by impaired mobility, and delayed receipt of emergency care when corrections officers must remove shackles to allow for assessment or intervention (ACOG, 2016; Association of Women's Health, Obstetric and Neonatal Nurses [AWHONN], 2011; Dignam & Adashi, 2014). Being shackled may contribute to or exacerbate women's behavioral health conditions and posttraumatic symptoms caused by prior experiences of trauma. Shackles also violate personal dignity when not needed to protect the woman or others. A woman's ability to harm others or flee is physically limited during pregnancy and labor, and corrections officers accompany incarcerated women in hospital settings (International Human Rights Clinic, 2013). For ethical and patient safety reasons, shackles are needed only in the exceptional circumstances of imminent risk of harm or escape that cannot be managed in safer ways, such as de-escalation or proper corrections staffing.

Position statements by the largest professional groups in this clinical area and laws or policies in most states have been written to address when shackles can be used on incarcerated women during pregnancy and the postpartum period. In 2011, AWHONN released a position statement to voice opposition to the use of shackles on incarcerated women during pregnancy except when “prison officials reasonably believe, after an impartial and thorough evaluation, that a particular individual may attempt to harm herself or others or presents a legitimate flight risk” (AWHONN, 2011, p. 817). The American College of Nurse Midwives (2012) and ACOG (2016) also published similar position statements. Laws in 26 states and the District of Columbia and policies in most others restrict the use of shackles for women during pregnancy to women with risks of harm to self or others or escape (An Act Concerning the Fair Treatment of Incarcerated Persons, 2018; An Act Relating to Prisons and Reformatories, 2018; Ferszt, Palmer, & McGrane, 2018; Mo. S.B. 870, 2018; Pregnant Inmates Housed in Jail, 2018). Despite position statements and protective legislation or policies in most states, evidence suggests that shackling incarcerated women during pregnancy and the postpartum period continues (Kelsey et al., 2017; Quinn, 2014; Women in Prison Project, 2015; Zust, Busiahn, & Janisch, 2013).

As patient advocates, nurses play critical roles in improving the quality of perinatal care provided for incarcerated women. In its 2011 position statement, AWHONN indicated that perinatal nurses should know their state laws and local policies in this area and advocate for safe care. A number of researchers have conducted studies on restraint reduction among geriatric (Köpke et al., 2012; Möhler, Richter, Köpke, & Meyer, 2012) and psychiatric (Goulet, Larue, & Dumais, 2017) patients. In contrast, improvements to the quality of health care for incarcerated people in noncarceral clinical settings and reductions in the use of shackles have received little empirical attention. Zust, Busiahn, and Janisch (2013) conducted a study to examine nurses’ ($N = 11$) experiences of caring for incarcerated women during pregnancy in hospital settings. In that study, nurses from one Midwestern public hospital reported that they provided care for up to 36 incarcerated women each year; half of the nurses reported that they cared for at least one incarcerated woman each month. Nurses in the study reported the routine use of shackles as a major challenge to their care. The authors did not assess the reason for shackle use, advocacy by the nurses to remove shackles, or nurses’ knowledge of the AWHONN position statement and their states’ laws. Although important, whether these results represent the experience of the larger population of perinatal nurses in the United States is also unclear.

Shackling adversely affects a woman’s dignity and carries unique safety risks during pregnancy and the postpartum period, including risks for falls and delayed emergency care.

We currently lack sufficient evidence to develop interventions that enhance nursing care and advocacy for incarcerated women during pregnancy or the postpartum period in hospital settings. In particular, perinatal nurses’ knowledge of the AWHONN position statement and state laws remains unexamined, as do their experiences with incarcerated women who are pregnant or post-partum. To address this gap, we investigated the following aims in a national sample of U.S. perinatal nurses: (a) to describe perinatal nurses’ experiences of caring for incarcerated women during pregnancy and the postpartum period in a hospital

setting and (b) to assess their knowledge of the 2011 position statement *Shackling Incarcerated Pregnant Women* published by AWHONN and their states' laws regulating nonmedical restraint use, or shackling, of incarcerated women.

Methods

AWHONN members who self-identified as nurses in the antepartum, intrapartum, postpartum, or mother–baby categories were invited by e-mail to participate in an anonymous online survey between July and September 2017. Members were eligible regardless of experience with incarcerated women or level of nursing education (associate's, bachelor's, master's, or doctoral level). We offered an incentive in the form of a \$1 charitable contribution per participant to the National Diaper Bank Network. The City University of New York Integrated Institutional Review Board exempted this anonymous survey from review. Our recruitment e-mail noted that participation was voluntary and anonymous. Responding to the survey link implied consent to participate. At the time of this survey, 11,274 AWHONN members met our inclusion criteria and had valid e-mail addresses. A total of 988 nurses clicked on the survey link, and 923 nurses completed the survey for a final response rate of 8.2%.

While most nurse respondents had cared for incarcerated women during pregnancy or the postpartum period, few knew about the Association of Women's Health, Obstetric and Neonatal Nurses position statement or their states' shackling laws.

Measures

The investigator-developed survey included items to elicit demographic characteristics (seven questions), overall clinical nursing experience (six questions), clinical nursing experience with incarcerated women during pregnancy (one dichotomous question regarding any experience, 12 questions for those who reported experience), knowledge of the 2011 AWHONN position statement (four questions), and knowledge of their own states' shackling laws (five questions). Wording of knowledge questions was based on recommendations by Aday and Cornelius (2006) to prevent respondents from being tipped off to the correct answer. For example, the first question about the position statement asked, "Does AWHONN have a position statement on shackling incarcerated pregnant women?" Participants who responded *no* or *I don't know* or *I'm not sure* did not receive the subsequent three or four questions on the details of the position statement and state law, respectively. Before data collection, we conducted pilot testing of the survey for content, readability, and redundancy. Our pilot sample included five experienced perinatal nurses, four obstetricians experienced in the care of incarcerated women, and a legal expert in U.S. laws that regulate the use of shackles on incarcerated women during pregnancy.

Data Analysis

We coded knowledge responses as correct or incorrect based on the 2011 AWHONN position statement and the presence of a shackling law in each participant's practice state as of June 2017 (see Table 1). Nurses who worked in the District of Columbia were also coded as correct if they responded that their practice state had a law. Descriptive statistics were used to analyze participants' experiences in the provision of nursing care to incarcerated

women in community hospital settings and to determine the proportion of participants who scored correctly on knowledge questions. We used chi-square tests for the following comparisons: (a) differences in the proportion of participants with and without experience caring for incarcerated women during pregnancy by overall and perinatal clinical nursing experience and (b) differences in the proportion of participants with correct answers to the knowledge questions by overall and perinatal clinical nursing experience and experience caring for incarcerated women during pregnancy.

Results

Demographic information, overall clinical nursing experience, and knowledge results by participant clinical experience with incarcerated pregnant women are presented in Table 2. The sample ($N = 923$) largely comprised participants who self-identified as White women with more than 10 years of nursing experience overall and in the perinatal clinical area. The sample included at least two participants from each state and the District of Columbia; the largest numbers of participants were from California, Texas, and Florida. Just over half (58.7%) of the participants practiced in states with shackling laws.

Seventy-four percent of participants ($n = 690$) reported experiences caring for incarcerated women in hospital perinatal units. Participants with this experience most often reported that the women they cared for were incarcerated in jails (41.2%) or that they had taken care of women from prisons and jails (27.2%); 18.8% of participants did not know in which type of facility the women were incarcerated. Participants with experiences caring for incarcerated women during pregnancy were more experienced overall in terms of more years of total and perinatal nursing experience. They were also more likely to report working in labor and delivery or antepartum areas. One fifth ($n = 144$) of the participants who had experiences caring for incarcerated women reported caring for more than 20 incarcerated women during pregnancy over the course of their careers.

Of the participants with experiences caring for at least one incarcerated woman during pregnancy ($n = 690$), only 9.7% ($n = 67$) reported ever feeling personally unsafe while providing that care. Most (82.9%, $n = 572$) of the group with experiences caring for at least one incarcerated woman during pregnancy reported that shackles were used on the women sometimes to all of the time, whereas 12.3% ($n = 85$) reported that these women were always shackled. The most commonly cited reasons for shackling were adherence to rule or protocol (60.7%, $n = 347$), followed by risk of flight (55.6%, $n = 318$), risk of harm to others (27.8%, $n = 159$), and risk of harm to self (11.2%, $n = 64$); multiple responses were permitted. One third (32.9%, $n = 188$) of the participants who had cared for at least one woman who was shackled reported that rule or protocol was the only reason any of their incarcerated patients were restrained.

We also assessed advocacy efforts by participants ($n = 572$) who reported experiences caring for women in shackles. Sixty-five percent ($n = 372$) of participants who had cared for a shackled woman indicated that they had advocated for shackle removal, and 37% ($n = 212$) reported their requests always resulted in the removal of shackles. Nearly all (97.9%, $n = 364$) removal requests were directed to corrections officers. Rule or protocol was the most

common (71.7%) reason for the denial of a removal request, followed by risk of flight (46.8%), risk of harm to others (26.6%), and risk of harm to self (9.3%).

Knowledge of AWHONN's 2011 position statement and individual state laws was limited. Most participants did not know or were not sure about the position statement (80.7%, $n = 745$) or their states' laws (89.4%, $n = 825$). Only 17% ($n = 157$) of participants knew that AWHONN had a position statement on shackling of incarcerated women during pregnancy. Of these participants, only 17.8% ($n = 28$) correctly identified the conditions under which shackling may ethically take place (risk of harm to self or others or risk of flight). These participants comprised only 3% of the total study sample. Approximately 7% ($n = 65$) correctly identified whether their states had laws on shackling incarcerated women during pregnancy. Of the participants who were correct and lived in states with shackling laws ($n = 55$), only 40% ($n = 22$) knew the conditions under which shackling was legally allowed in their states, representing only 4% of the participants in this sample who practiced in a state with a shackling law.

We then tested the associations among knowledge and experiential factors. Having a master's degree or higher ($\chi^2 = 21.6$, $p < .001$), more than 10 years of overall nursing experience ($\chi^2 = 4.5$, $p = .03$), more than 10 years of perinatal nursing experience ($\chi^2 = 6.0$, $p = .01$), and experience working in labor and delivery ($\chi^2 = 3.9$, $p = .05$) were significantly associated with knowledge of the AWHONN position statement. There were no significant differences in knowledge of AWHONN's position statement or state laws by experience caring for incarcerated pregnant women ($\chi^2 = 1.8$, $p = .18$). However, within the group who had experience caring for women in shackles ($n = 572$), those who advocated for shackle removal were more likely to know about the AWHONN position statement than those who never advocated for their shackled patients ($\chi^2 = 5.9$, $p = .01$). Only practicing in a state with a shackling law ($\chi^2 = 15.8$, $p < .001$) and having a higher level of nursing education ($\chi^2 = 13.1$, $p < .001$) were significantly associated with nurses' correct identification of whether their states had laws.

Discussion

Most of the nurses in our study had experience caring for incarcerated women during pregnancy or the postpartum period and reported that these women were shackled at least some of the time. Only a small percentage had knowledge of the AWHONN position statement, which was 6 years old when the survey was conducted, or of state laws that address incarcerated women's care. Within the small knowledgeable group, even fewer knew the specifics of when the use of shackles might be ethically acceptable in accordance with the position statement or could legally occur in accordance with state laws. With these findings, we also further document the routine use of shackles noted in legal and advocacy reports and highlight the need to bring rules and protocols regarding the care of incarcerated women in line with nursing ethics and patient safety goals.

Current knowledge of professional position statements and applicable shackling laws is a first step to safe, ethical care for incarcerated women during pregnancy and the postpartum period. This knowledge may be critical to nurses' advocacy efforts and their effectiveness.

Shackles are controlled by corrections officers, and nurses must collaborate with them when a woman is incarcerated. Nurses and corrections officers have different responsibilities; corrections officers are responsible for security, and nurses are responsible for patient safety. In our study, awareness of the 2011 AWHONN position statement was significantly associated with advocacy for the removal of shackles. From a legal perspective, current laws in 17 states and the District of Columbia mandate the removal of shackles at the request of a health care provider. Without knowledge of this legal authority, nurses cannot use it to protect women who present no risk of harm to themselves or others.

AWHONN began to address these knowledge deficits and expand nursing awareness of incarcerated women's needs soon after our survey was conducted. In December 2017, the Board of Directors approved an updated position statement titled "Nursing Care of Incarcerated Women During Pregnancy and the Postpartum Period" (AWHONN, 2018). The 2018 position statement retained opposition to shackling women throughout pregnancy and within 8 weeks after birth outside of imminent risk of harm to self or others or escape that cannot be addressed by other means, such as adequate monitoring by a corrections officer. In the new position statement, AWHONN continued to recommend that nurses know their own states' laws in this area. AWHONN also expanded the statement to include support for (a) comprehensive reproductive and perinatal care and safe jail and prison accommodations for pregnant women; (b) equitable breastfeeding support and education; and (c) access to options that support mother–infant contact, including community alternatives to incarceration, prison nurseries with developmental support, consideration of distance to family when deciding prison assignment, and family-friendly visitation spaces. The position statement was disseminated in the *Journal of Obstetric, Gynecologic, & Neonatal Nursing and Nursing for Women's Health* and on social media.

Further efforts are needed to ensure that incarcerated women receive ethically, medically, and legally acceptable care. Twenty-four states and the federal prison system remain without enacted legislation to protect incarcerated women from the use of shackles during pregnancy and the postpartum period. We encourage nurses to join ongoing advocacy efforts to pass protective legislation. Nurses are ethically obligated to collaborate with other disciplines and the public to raise awareness about unjust structural conditions that exacerbate suffering (American Nurses Association, 2015). As a dangerous practice used routinely against a stigmatized group, shackling is a form of structural discrimination against incarcerated women (Goshin, Arditti, Dallaire, Shlafer, & Hollihan, 2017). Within advocacy teams, nurses add clinical expertise and social status as the profession consistently rated by the public as the most honest and ethical (Brenan, 2017). Participation by advocates with a high social status can be especially important in advocacy for stigmatized groups (Clair, Daniel, & Lamont, 2016).

Primary and continuing education for nurses on professional standards and state laws is needed to ensure the safe, ethical care of incarcerated women.

Our findings also suggest the need to strengthen legislation to ensure maximum effectiveness. Wide variation exists in the content and protections afforded by existing shackling laws (Thomas & Lanterman, 2017). For example, some states specifically identify nurses as persons who can request that shackles be removed (e.g., Delaware), whereas others

do not address the role of the health care professional (e.g., New Mexico) or only mention “medical” personnel (e.g., Illinois). Specific identification of nurses in legislation may increase their authority to request removal of shackles. Our findings also provide evidence of the need for health care provider training. Current laws in some states, such as New York (Births to Inmates, 2015), mandate that corrections personnel who transport incarcerated women are properly trained and that incarcerated women who are pregnant are notified about their legal rights. To our knowledge, no legislation mandates training of health care professionals in hospitals contracted to care for incarcerated women. Additionally, the law recently passed in Missouri (Mo. S.B. 870, 2018) only covers women in state prisons, not county jails. More nurses in our sample reported that their patients came from jails, and more women are incarcerated in jails than prisons because of the rapid turnover in the jail population. Incarcerated women in prisons and jails should receive the same level of health care safety and quality as women who are not incarcerated.

Advocacy for new or strengthened legislation is necessary but not sufficient to keep incarcerated women safe during pregnancy and the postpartum period. Rule or protocol was the most commonly reported reason for shackling of the incarcerated women cared for by the nurses who responded to our survey and were the most common reasons for removal requests to be denied. Although most participants with experiences caring for shackled women reported multiple reasons, adherence to rule or protocol was the only reason given by one third of that group. Endorsing a rule or protocol was more common than any endorsement of risk of harm to others or self, which were the least commonly endorsed reasons. We were unable to determine from our data the content of the rules and protocols in question or whether they derived from hospitals or departments of correction. We focused our assessment on knowledge and content of shackling laws because these were more easily accessible for a nationwide sample than the rules or policies of individual hospitals and jurisdictions. Local policies may not be in full compliance with state laws, even in states with the most protective legislation (American Civil Liberties Union of California, 2016; Legal Services for Prisoners with Children, 2017; Women in Prison Project, 2015). The assessment of congruence between rules and protocols on the care of incarcerated women during pregnancy, state laws (when applicable), and professional standards for safe practice is an important area for future inquiry.

Incarcerated people are the only group that can be restrained in a clinical setting solely on the basis of protocols without also being a risk of harm to themselves or others. Reducing the use of restraints is the standard of care even in people who do present those risks, such as those who are experiencing acute mental illness (American Psychiatric Nurses Association, 2018). In their systematic review of restraint reduction programs in mental health settings, Goulet, Larue, and Dumais (2017) identified leadership, training, prevention tools, and postrestraint review as key strategies for restraint reduction.

When applied to the care of incarcerated women during pregnancy, initiatives to reduce the use of restraints include revising hospital protocols and internal policies on the use of shackles to conform to professionally accepted standards. Language to mandate correctional and health care staff training and postshackling review could also be inserted into hospital contracts with departments of correction in states with and without legislation. Perinatal

nurses in hospitals contracted to care for incarcerated people should receive training on their states laws, if applicable, and institutional policy as part of their orientation process or when a new law is passed. The clear patient safety risks from nursing knowledge gaps in this area also warrant inclusion of this content in maternity nursing courses across levels of nursing education. Prevention tools could include teaching deescalation techniques for working with agitated patients and strategies for more effective communication with corrections officers. When a woman is shackled in the perinatal unit, the leadership team should review the reason for the shackling (risk of harm to self, harm to others, or risk of flight that could not be addressed by other means) and discuss strategies that might have prevented it. Ideally, correctional colleagues should be involved in training, prevention, and postshackling event reviews.

Limitations

There are several limitations to our study. First, our low response rate limits the generalizability of these findings. Although AWHONN is the largest U.S. organization for perinatal nurses and our sample was similar to the overall AWHONN membership in terms of gender, highest degree in nursing, and practice states, our response rate was very small. Second, we did not ask when participants cared for incarcerated women. For this reason, we were unable to determine whether the high percentage of participants who reported that they cared for women in shackles reflects current or historical practice. It is possible that the care occurred before antishackling laws, especially given that most of our participants had more than a decade of perinatal nursing experience. Finally, our data show only the experiences and knowledge of perinatal nurses in their care of incarcerated women. These data are not reflective of the birth experiences of the women themselves, and we are unaware of research in which these experiences are explored. We believe documenting the negative and positive aspects of incarcerated women's birth experiences and assessing the long-term physical and mental health effects for women who give birth in shackles to be important research areas. We chose to focus this study on nurses to more quickly address the critical patient safety issue of shackling.

Conclusions

The United States incarcerates more women than any other country in the world. Most incarcerated women are of reproductive age and already have at least one minor child.

Incarcerated women are transported to community hospitals for perinatal care. While receiving this care, they are routinely shackled, a practice that can cause serious physical and psychological harm and loss of patient dignity. Nurses who work in perinatal units may be asked to care for incarcerated women regardless of whether they have chosen to work with these women. Advocacy to protect the health, safety, and dignity of all patients is central to nursing practice and ethics. Our findings suggest that perinatal nurses have significant experience but limited knowledge on the standards of care and protective laws for these vulnerable women. The presence of these critical knowledge gaps underscores an urgent need for primary and continuing nursing education regarding the care of incarcerated women during pregnancy and the postpartum period. Adequate knowledge of ethical practice

standards and state laws is an essential first step in the provision of the safe, ethical care that all women deserve.

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Table 1:

States With Enacted Legislation as of June 2017 Regulating the Use of Shackles on Incarcerated Women During Pregnancy or the Postpartum Period

Arizona	Massachusetts
California	Minnesota
Colorado	Nevada
Delaware	New Mexico
Florida	New York
Hawaii	Pennsylvania
Idaho	Rhode Island
Illinois	Texas
Louisiana	Vermont
Maine	Washington
Maryland	West Virginia

Note. We collected these data between July and September 2017. Laws regulating the use of shackles on incarcerated women during pregnancy or the postpartum period were passed in Connecticut, Kentucky, Missouri, and Oklahoma after the collection of these data.

Participant Demographics, Nursing Experience, and Knowledge by Experience Caring for Incarcerated Women During Pregnancy or the Postpartum Period

Participant Characteristics	Total (N = 923) (n = 690)				Experience (n = 233)			
	n	%	n	%	n	%	n	%
Female	921	99.8	689	99.9	232	99.6		
Race/ethnicity								
White	806	87.3	611	88.6	195	83.7		
Hispanic or Latino	58	6.3	46	6.7	12	5.2		
Practices in state with shackling law	542	58.7	402	58.3	140	60.1		
Highest level of nursing education								
LPN/LYN or ADN	153	16.6	108	15.6	46	19.6		
BSN	454	49.2	333	48.3	122	52.2		
Master's degree	266	28.8	210	30.4	54	23.4		
Doctorate	50	5.4	39	5.7	11	4.8		
Total nursing experience, years [*]								
0–10	170	18.4	98	14.2	80	34.5		
>10	753	81.6	592	85.8	153	65.5		
Perinatal nursing experience, years [*]								
0–10	240	26.0	134	19.4	106	45.7		
>10	683	74.0	556	80.6	127	54.3		
Perinatal areas of experience ^a								
Labor and delivery [*]	833	90.2	637	92.3	196	84.1		
Antepartum [*]	735	79.6	563	81.6	172	73.8		
Postpartum	717	77.7	532	77.1	185	79.4		
Knowledge of AWHONN position statement								
Yes	157	17.0	124	18	33	14.2		
No	21	2.3	19	2.8	2	.9		
Don't know or not sure	745	80.7	547	79.3	198	85.0		

Participant Characteristics	Experience (n = 690)			No Experience (n = 233)		
	n	%	n	%	n	%
Total (N = 923)						
Knowledge of state shackling law						
Correct	68	7.4	57	8.2	12	5.2
Incorrect	30	3.2	22	3.2	7	3.0
Don't know/not sure	825	89.4	611	88.6	214	91.8

Note. ADN = associate's degree in nursing; AWHONN = Association of Women's Health, Obstetric and Neonatal Nurses; BSN = bachelor's degree in nursing; LPN = licensed practical nurse; LVN = licensed vocational nurse.

^aMultiple responses were permitted.
* Chi-square significant at $p < .05$.