

Factors Related to Nurse Comfort When Caring for Families Experiencing Perinatal Loss

Evidence for Bereavement Program Enhancement

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As nurses provide holistic support, their own comfort in caring for parents and families experiencing perinatal loss must be considered. Study results showed that, although education is essential, experience independently predicted comfort in delivering perinatal bereavement care. Evidence from this study promotes the discussion of how nurse educators can structure professional development programs to best transfer the experience and confidence of perinatal nurses who are already comfortable with bereavement care to nurses who are not.

INTRODUCTION

Whether it occurs before birth or shortly after, the death of a baby is a devastating event. As parents and families experience this loss, perinatal nurses provide holistic support and surveillance. In addition, nurses are a source of information for families while they are coordinating the delivery of care within a multidisciplinary team (Heustis & Jenkins, 2005). Therefore, perinatal nursing care requires knowing and feeling comfortable with delivering multiple

physical and psychological therapeutic interventions at any given time during a loss event. Many experienced perinatal nurses can integrate these interventions with grace and confidence. The question arises as to how nurse leaders and educators can facilitate professional development to reach this level of expertise.

Although the parents' and families' perspective is the primary focus of nursing care during perinatal loss, the specific phenomenon examined for this study involved the factors related to the nurse's comfort in fulfilling interventions during the event. Factors examined in this study were years of perinatal experience, number of loss cases cared for, bereavement education received, and the self-reported comfort of the nurse. A secondary goal was to examine the comments related to barriers and facilitators to nurses' comfort reported in open-ended questions. Evidence from this study can assist nurse leaders and educators in developing an optimal learning environment to enhance staff comfort and confidence when providing perinatal bereavement care.

RESEARCH ON PERINATAL NURSE COMFORT IN PROVIDING BEREAVEMENT CARE

A number of qualitative studies have common themes suggesting that orientation, experience, education, debriefing, and training are part of perinatal bereavement role development (Cartwright & Read, 2005; Puia, Lewis, & Beck, 2013; Roehrs, Masterson, Alles, Witt, & Rutt, 2008; Wallbank & Robertson, 2008). Simultaneously, there is an emerging body of quantitative evidence on the factors related to nurse comfort or, from the opposite perspective, nurse distress while caring for parents and families experiencing perinatal loss. Lack of experience was found to be linked to higher distress scores for staff nurses (Wallbank & Robertson, 2013). A dissertation by Ligeikis-Clayton (2000) examined correlations between perinatal nurses' comfort scores and age, gender, experience, educational preparation, and training in bereavement. Analysis showed significant positive

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correlations for age and comfort, years worked in the obstetric setting and comfort, and bereavement education and comfort (Ligeikis-Clayton, 2000). The Ligeikis-Clayton study was replicated by Rock in 2004, with results showing significantly higher mean comfort scores for nurses who were educationally prepared. In a separate study, Chan et al. (2008) administered the “attitude of obstetric nurses toward bereavement care” tool to a multisite sample. Age, experience in handling grieving clients, bereavement care training, and nurses’ attitudes of hospital policy were significant factors in predicting nurses’ attitudes (Chan et al., 2008).

Kolcaba (2003, 2009) was utilized to frame this study. Comfort theory states that comfort is an outcome that can be enhanced for patients. Although patient comfort is the focus, the theory can be applied to examining nurses’ comfort for “nurses also identify their own comfort needs” for their role and workplace, with the capability to resolve those needs (Kolcaba, 2009, p. 259). In summary, this study will add to the existing body of evidence descriptions of barriers and facilitators while delivering bereavement care, the relationships of variables to comfort in the role, and the ability to predict nurse comfort in relation to identified characteristics.

Nurses Who Provide Perinatal Bereavement Care

In this study, the sample of nurses who cared for parents and families during perinatal loss worked in the areas of labor and delivery (L&D), postpartum (PP)/family-centered care (FCC), and the neonatal intensive care unit (NICU) within the hospital setting. “Perinatal” refers to a specific time of pregnancy, between 22 weeks of gestation to 7 days after birth (World Health Organization, 2006). “Perinatal mortality” includes both fetal deaths and live births that die within the first week of life (MacDorman & Kirmeyer, 2009; World Health Organization, 2006). Therefore, for this study, “perinatal loss” included both interuterine deaths from approximately 20 weeks of gestation and live births expiring unexpectedly within 1 week of life.

STUDY DESIGN

This study utilized a cross-sectional, online survey design. The study was conducted within a large integrated health-care system in Southern California. After institutional review board approval, perinatal registered nurses from eight hospitals had the opportunity to complete the survey in 2011. The online survey requested demographic information, years of experience, number of bereavement class hours attended, and recall of the number of perinatal loss cases cared for over the years as a perinatal nurse. In addition, there were two open-ended questions related to describing facilitators and barriers that influence nurses’ comfort in performing the bereavement role.

The measure selected to quantitatively measure a nurse’s comfort was a revised perinatal bereavement scale

from the aforementioned Ligeikis-Clayton dissertation (Ligeikis-Clayton, 2000). Permission was received from Dr. Ligeikis-Clayton to use and modify the scale. The final comfort tool had 20 items, divided into two sections with the first section requesting the level of nurse comfort when discussing items with parents (e.g., having time with the baby, spiritual requests, the grief process, and funeral options). The second section explored the level of nurses’ comfort in the performance of bereavement skills/actions during the perinatal loss event (which includes dressing the baby, providing keepsakes, taking photographs, and contacting social services). Each item was measured from 0 to 4, with the lowest comfort for each item as 0 and the highest comfort at 4, and therefore, the total highest comfort score was 80.

DATA ANALYSIS

Data were analyzed using Statistical Package for the Social Sciences software, version 19. Descriptive statistics included mean and standard deviations for continuous data with frequencies and percentages for categorical variables. Analysis of the comfort tool for nurses included (a) calculating mean scores on individual questions and (b) calculating each participant’s total “comfort” score (range = 0–80). Chi-square, *t* tests and analysis of variance (ANOVA) analyses were conducted to examine differences between groups. Pearson correlation and linear regression modeling were utilized to examine relationships of variables to overall comfort with bereavement care. Answers to open-ended survey questions were reviewed for meaningful segments and categorized into themes.

RESULTS

There were 172 nurses who completed the online survey, reflecting an adequate total sample for analysis, 95% confidence, with $\pm 7\%$ margin of error (Raosoft Incorporated, 2013). Of the 172 respondents, 96 (55.8%) identified as L&D nurses, 41 (23.8%) identified as NICU nurses, and 35 (20.3%) identified as PP nurses. As a total cohort, the mean age was 46 ($SD = 10.8$) years with 96.5% female gender. The categories of race for this cohort are listed on Table 1 with formal educational level.

One-way ANOVA tests showed significant differences across the subsets of L&D, NICU, and PP nurses (see Table 2). For years of experience ($F = 3.958$, $df = 2/168$, $p = .021$), a Tukey post hoc pairwise analysis resulted in a significantly higher ($p = .015$) mean of 19.36 ($SD = 9.86$) for NICU nurses when compared with PP nurses. There were no significant differences between L&D and NICU nurses ($p = .318$) or PP and L&D nurses ($p = .142$) on years of perinatal experience.

For the reported number of perinatal loss cases cared for, a one-way ANOVA ($F = 7.096$, $df = 2/153$, $p = .001$) also resulted in significant differences between groups. A Tukey post hoc test showed that L&D nurses reported a

TABLE 1 Respondents' Characteristics

Characteristic	Mean	Standard Deviation	%	<i>n</i>
Age (years; 10 missing)	46.38	10.23		162
Gender (2 missing)				170
Female			97.6	166
Male			2.4	4
Race/ethnicity (2 missing)				170
White			44.7	76
Asian/Pacific Islander/Filipino			27.6	47
Black/African American			11.8	20
Hispanic/Latino/Spanish origin			9.4	16
Native Hawaiian/Pacific Islander			2.9	5
Two or more races			1.2	2
Other			2.4	4
Highest degree of education (2 missing)				170
Vocational license			0.6	1
Associate			36.5	62
Diploma			5.3	9
BS/BA in nursing			41.2	70
BA/BS in another discipline			4.1	7
Masters: nursing			7.6	13
Masters: other than nursing			4.7	8
Practice setting				172
Labor and delivery			55.8	96
Neonatal intensive care unit			23.8	41
Postpartum (family-centered care)			20.3	35

significantly higher number of perinatal loss cases cared for when with PP ($p = .002$) nurses and trended toward significance when compared with NICU nurses ($p = .059$). PP and NICU nurse reported cases were not significantly different ($p = .470$).

Nurses in this sample provided the number of hours they attended formal bereavement education hours. Because of nonnormal distribution and the frequency of zero values, results were categorized (see Table 3). Categories were coded into three sets of (a) 0 hour, (b) 1–7 hours, and (3) 8 or greater hours. Results indicate that there was no significant difference in formal bereavement education reported between groups ($\chi^2[4, n = 154] = 7.316, p = .120$).

Modified Comfort Scale

The mean total comfort score for the overall cohort was 56.49 ($SD = 22.76$). Reliability of the comfort scale was acceptable ($\alpha = .98$). Individual items within the comfort tool were also examined for the highest and lowest reported comfort levels. Discussing baby's gender, contacting social services, allowing time with the baby during the hospital stay, contacting spiritual advisor, and holding their baby were the top five reported bereavement role components with individual mean scores ranging from 3.16 to 3.06 (range = 0–4). The five lowest scoring individual components were retrieving baby from the morgue, discussing autopsy and genetic testing with parents, discussing funeral options, the grief process, and discussing with parents the option to bathe and dress their baby. Mean scores for the five lowest scale components ranged from 1.81 to 2.6.

There was a significant difference on total comfort scores when subgroups were analyzed ($F = 7.841, df = 2/169, p = .001$). NICU total comfort scores were the highest (mean = 61.3 [$SD = 17.48$]), yet not significantly different from L&D nurses ($p = .596$). However, PP comfort (mean = 42.6 [$SD = 26.77$]) was significantly lower than both L&D ($p = .002$) and NICU ($p = .001$; see Table 2).

Regarding factors predicting comfort scores, the total sample of respondents was examined for two factors: (a) years of experience and (b) number of perinatal loss cases cared for. First, a correlation matrix showed that years of experience ($r = .346, p < .001$) and number of perinatal loss cases cared for ($r = .374, p < .001$) were significantly related to total comfort. Although the Pearson correlation was significant between both independent variables ($r = .41, p < .001$), the variance inflation factor was less than 5, and subsequently, both variables were then examined in a stepwise linear regression model. The linear combination of both years of experience and number of cases cared for significantly predicted total comfort for the sample group of perinatal nurses ($R^2 = .176$, adjusted $R^2 = .165, F(2,152) = 16.201, p < .001$; see Table 4).

Open-Ended Responses to Facilitators and Barriers for Comfort in the Role

A notable result from the survey was the large number of comments entered into the open-ended questions regarding facilitators and barriers related to nurses' comfort

TABLE 2 Differences Between L&D, Postpartum, and NICU Subsets

Years of experience	Mean (SD)	ANOVA	p Value	Significant Pairwise Analysis
(1) L&D	16.6 (10.63)	$F = 3.958, df = 2/168$.021	3 > 2
(2) Postpartum	12.84 (8.76)			
(3) NICU	19.36 (9.86)			
Number of perinatal loss cases				
(1) L&D	23.9 (23.85)	$F = 7.096, df = 2/153$.001	1 > 2
(2) Postpartum	11.7 (20)			
(3) NICU	14 (16.49)			
Total comfort scores				
(1) L&D	57.39 (21.64)	$F = 7.841, df = 2/169$.001	2 < 1, 3
(2) Postpartum	42.6 (26.77)			
(3) NICU	61.3 (17.48)			

Note. L&D = labor and delivery; NICU = neonatal intensive care unit; ANOVA, analysis of variance.

during the patient's perinatal loss experience. Results show 30 themes. However, for this article, only overarching themes are discussed (see Table 5). Overarching themes have the highest number of comments, and the responses cut across most, if not all, survey participants. The overarching themes from this study are arranged using the Donabedian model of structure, process, and outcome (Donabedian, 2003; Rondinelli, Ecker, Crawford, Seelinger, & Omery, 2012). Themes therefore reflect topics/areas within providing perinatal bereavement care that can be facilitators if present or barriers if absent.

Structural themes were organized as reflecting "organizational support." Within organizational support, themes were expressed as educational opportunities focused on perinatal bereavement care, uninterrupted time to be with the patient and family, and space for the family to be with the deceased. "Education on bereavement care" had the most responses of any theme within this category. Nurses also expressed a need for having bereavement supplies and materials at hand. This need was reflected in the following participant response: "Ensuring we always have remembrance keepsake boxes available to place lockets of hair, picture, and footprints."

Although the themes within the structural category of organizational support had the most responses, an almost equal amount of responses were processes related to "experiential knowing." Experiential knowing for these respondents was acquired professionally, while providing bereavement care at work, or personally, from experiencing a loss. Comments supported that experience over time enabled the nurse to better understand role expectations, and thus provide perinatal bereavement care more comfortably and confidently in the future. Nurses stated that sharing the experience with a colleague and not being alone was also a facilitator.

One respondent reflected the theme of not being alone: "Having a buddy nurse to help me with bathing, measuring, etc." Acknowledging and incorporating individual cultural and spiritual beliefs of the patient and family occurred after knowing the patient. One respondent eloquently reported: "Discovering what spiritual beliefs that a family holds. What I find in dealing with loss may not be a comfort to that individual without the same belief system that I have."

TABLE 3 Bereavement Education Classes

Class Hours	L&D (n = 90)	Postpartum (n = 29)	NICU (n = 35)	Chi-square	p Value
0	42% (38)	58.6% (17)	25.7% (9)	$\chi^2 (4, n = 154) = 7.316$.120
1-7	22% (20)	17.2% (5)	25.7% (9)		
8 or more	35.6% (32)	24.1% (7)	48.6% (17)		

Note. L&D = labor and delivery; NICU = neonatal intensive care unit.

TABLE 4 Stepwise Linear Regression Model Predicting Total Comfort

Model	B	SE	β	t	p Value	95% CI
Years of perinatal experience	0.487	0.184	.214	2.645	.009	0.123, 0.851
Number of perinatal loss cases cared for	0.327	0.094	.282	3.475	.001	0.141, 0.513
Constant	40.373	3.185	–	12.679	.000	34.082, 46.663

Note. Adjusted $R^2 = .169$, explaining 17% of the variance in total comfort.

In the Donabedian (2003) model, reliable processes within quality structures lead to desired outcomes. Two polarized themes were present related to the outcome of comfort in this study. One was “I am comfortable,” reflecting a level of confidence and self-reported competence for this role. The second was “always difficult and uncomfortable.” Although several nurses answered similarly, one respondent captured it well: “Since it is not done very frequently, it’s just not something you can get comfortable with, each situation is unique.”

DISCUSSION

Perinatal nurses rely on a repertoire of multiple physical and psychological therapeutic interventions during a loss event and tailor them to fit individual patient and family needs. These critical individual-level interventions are provided within an organizational system of education, policies, and procedures. Results of this study are therefore discussed through the context of how this new evidence can inform nurse leaders and educators in bereavement program decisions, development, and strategies within the perinatal setting.

There is notable evidence on the need for initial and/or continued perinatal loss education from respondents in this study. Although there were reports of some bereavement education, there was a third of the total sample reporting 0 hour, with no differences between subsets. Open-ended comments supported the quantitative results in that “education” was one of the categories when striving for comfort in the bereavement role. In addition, organizational theme results support continuous evaluation by nursing professional development (NPD) educators and nurse leaders of supplies, space, processes, and personnel that, when done proactively, leads to a comprehensive bereavement program versus being reactionary to individual loss events.

Although education remains a main part of achieving role comfort, results showed a second key factor through experiential knowing. The variables of “number of perinatal loss cases cared for” and “years of perinatal experience” each independently predicted comfort scores for the total sample. This conceptually aligns with the recent study by Wallbank and Robertson (2013) where less experience was related to more distress in the role. This leads to the contemplation that, although education is important, experience is equally

essential to establish a high level of comfort in the perinatal bereavement role.

Qualitative results in this study support quantitative findings on the need for experience and, for investigators, one of the key findings for this study. Open-ended responses produced a subset of processes only emerging from being contextually in the situation. For a perinatal nurse to express the themes of “personal and professional knowing” and “not being alone” in addition to acknowledging “diverse cultural and spiritual beliefs,” one has to live it and to know it, to then be comfortable in the role.

This new evidence on experiential knowing leads to the consideration of how NPD educators and perinatal nurse leaders can increase direct experiences. One may consider if there are tasks and cares that can be shared with the primary nurse caring for the patient and family, thus promoting a team approach to the event. Results support focus on the individual items from the comfort scale that had the lowest scores. Another consideration is mentorship and coaching, thus utilizing the rich intellectual capital of senior staff and/or those who already show comfort and confidence in providing skills. Although not a direct replacement for experience, one may consider incorporating simulation

TABLE 5 Themes Related to Areas That are Barriers or Facilitators to Comfort When Providing Perinatal Loss Bereavement Care

	Overarching Themes
Structure: organizational support	<ul style="list-style-type: none"> - Education on bereavement care - Time and space with and for the grieving family - Knowing what to say - Having supplies and materials to provide care
Process: experiential knowing	<ul style="list-style-type: none"> - Personal knowing - Professional knowing - Acknowledgment of diverse cultural and spiritual beliefs - Not being alone when completing bereavement care
Outcome: comfort	<ul style="list-style-type: none"> - Always difficult and uncomfortable - I am comfortable

scenarios, role playing, and debriefing into perinatal loss educational programs and organizational procedures.

When examining the subsets of perinatal nurses, the NICU nurses in the sample had the highest comfort scores and the most experience, especially when compared with PP registered nurses. When reviewing open-ended comments, a few NICU nurses expressed that, unfortunately, loss is more of an expected occurrence in the intensive nursery setting. Although the NICU subset had a sample of 41, results can lead educators to the consideration of NICU nurse consultation for their rich experience and for mentoring on skills, processes, and insights in providing perinatal bereavement care. Not every hospital may have a NICU on site; however, collaboration and networking within organizations and across community partners should be considered as part of a bereavement program enhancement.

It was not unexpected to investigators that all PP variables examined in this study were lower than the L&D and NICU groups. In general, PP nurses are not the primary nurses caring for the families during the actual loss. Some questions on the survey may not have been applicable to their role. However, PP nurses may deliver care and maintain relationships with parents and families after the immediate event. Therefore, results support the recommendation that PP nurses participate in annual inservices and education on perinatal loss events.

In reviewing our sample, especially when examining subgroups, one may consider that results are not generalizable. However, respondents were from more than one setting, thus reflecting various local medical center bereavement programs. This increases the consideration of utilizing the evidence from this study by the community. Investigators in this study modified an existing comfort survey, and therefore realize that it has promise for further development with validity and reliability testing. For investigators and consulted perinatal staff, the modified comfort survey captured specific tasks related to the actual cares during a perinatal loss event. We therefore can recommend the modified comfort survey for use with new graduates, on-boarding a new employee, and for general perinatal bereavement experience evaluation. Another tool for consideration is the aforementioned survey by Chan, Chan, and Day (2004) and Chan et al. (2008).

Perinatal nurses wish to give effective support and desire the education and tools for delivering competent bereavement care during a perinatal loss event. This study shows that experiential knowing increases, or facilitates, a nurse's level of comfort and confidence in the role. Perinatal leaders and NPD educators should consider strategies that simultaneously incorporate education and sharing of experiences into a perinatal bereavement program or unit practice. Most importantly, the evidence generated by this study can aid in reaching the overall goal of improving the

delivery of care during the devastating period of bereavement that is implemented by nurses who are comfortable in the role and assistive during the grief process for parents and families.

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