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How Physicians Cope With Stillbirth or Neonatal Death

A National Survey of Obstetricians

Katherine J. Gold, MD, MSW, Angela L. Kuznia, MPH, and Rodney A. Hayward, MD

OBJECTIVE: To identify U.S. obstetricians' experiences and attitudes about perinatal death, their coping strategies, and their beliefs about the adequacy of their training on this topic.

METHODS: A total of 1,500 randomly selected U.S. obstetricians were mailed a self-administered survey about their experiences and attitudes in dealing with perinatal death. Physicians received up to three copies of the survey, a reminder card, and a $2 cash incentive. Eight hundred four physicians (54%) completed the entire survey.

RESULTS: Seventy-five percent of respondents reported that caring for a patient with a stillbirth took a large emotional toll on them personally, and nearly one in 10 obstetricians reported they had considered giving up obstetric practice because of the emotional difficulty in caring for a patient with a stillbirth. Talking informally with colleagues (87%) or friends and family (56%) were the most common strategies used by physicians to personally cope with these situations.

CONCLUSION: Perinatal death has a profound effect on the delivering obstetrician, and a significant number of participants in our study have even considered giving up obstetrics altogether. Improved bereavement training may help obstetricians care for grieving families but also cope with their own emotions after this devastating event.

(Obstet Gynecol 2008;112:29–34)

LEVEL OF EVIDENCE: II

The death of a patient is a profound event for most physicians.[1,2] In the past few decades, U.S. medical schools have significantly increased curricular content related to death and dying.[3] Unfortunately, although medical training has increased, students, residents, and attendings often still report feeling unprepared for bereavement issues in patient care.[4]

Physicians in fields with high numbers of dying patients, such as oncology or geriatrics, may gain significant experience over time in grief and bereavement issues. Conversely, physicians in fields such as obstetrics and pediatrics may be much less likely to encounter issues of death and dying.

Virtually all obstetricians who deliver neonates encounter perinatal death. Approximately 15% of pregnancies end in early losses (before 20 weeks gestation).[5] In the United States, 1.3% of pregnancies end in either stillbirth (losses after 20 weeks but before delivery) or infant death (deaths in the first year of life, most of which occur in the first week).[6] This means that on average, the typical obstetrician delivering 140 neonates a year could encounter nearly two dozen women with a miscarriage and one to two with stillbirth or infant death.[7]

Although stillbirths and infant deaths are relatively uncommon, they are often emotion-laden events for both parents and physicians and midwives, in part because their sudden and unexpected nature often makes them difficult and traumatic losses for survivors.[8–10] The death of a fetus or neonate can be traumatic and life-altering for parents, not infrequently leading to prolonged or complicated grief and mental health sequelae.[9–13] However, little is known about how patient deaths generally affect physicians

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and specifically how fetal or infant deaths affect obstetricians. This research sought to identify U.S. obstetricians' experiences with and attitudes about perinatal death, their coping strategies, and their beliefs about the adequacy of their training on this topic.

MATERIALS AND METHODS

We used simple random sampling to identify 1,500 U.S. obstetricians from the American Medical Association Physician Masterfile whom we confirmed had an active U.S. license according to state medical board Web sites. The AMA Physician Masterfile includes current and historical data on all U.S. physicians, both AMA members and nonmembers as well as graduates of foreign medical schools who reside in the United States.[14] Sample size was selected to provide adequate power given the relatively low survey response rates typically seen in physician surveys. Each physician received up to three mailed copies of the four-page anonymous survey, one $2 cash incentive, a stamped return envelope, and one reminder postcard.[15] We surveyed new participants if the post office returned undeliverable mailings within 3 months of study initiation. The study was approved by the University of Michigan Institutional Review Board.

The survey contained 51 questions, which were piloted among a sample of resident, fellow, and attending obstetricians. The study included questions on personal experiences and beliefs about perinatal death and patient care, questions about bereavement training and skills, and demographics.

Of 1,500 initial mailings, mailings to 19 physicians were returned undeliverable, and new participants were surveyed. Fifteen physicians had mailings returned after closure of the study and were not replaced. Of 1,485 eligible participants, 34 actively declined to participate, two returned incomplete surveys, and 804 completed the full survey for a usable response rate of 54%.

We conducted univariable and multivariable analyses examining physician attributes (age, race, position [resident, fellow, or attending], sex, average obstetric volume, currently doing obstetrics, being a parent, and having personal experience—by self or a close friend or family member—with a perinatal death) associated with our outcome variables. Outcomes included whether stillbirth takes a large emotional toll on the physician, whether the physician had ever considered giving up obstetrics due to emotional toll of stillbirth, belief that the physician's own training was adequate to cope with fetal or infant death, belief that providers in general have adequate training to cope with fetal or infant death, blaming self or feeling guilty when no cause of death is known, and worrying about legal or disciplinary action when no cause of death is known. The first two questions were evaluated using a Likert scale (Strongly disagree, Disagree, Agree, Strongly Agree), and the others were dichotomous (Yes/No). Questions about types of coping mechanisms and best ways to train physicians allowed multiple responses. Associations were testing using χ^2 and multivariable logistic regression. Age and years of experience were colinear, and substitution of either variable did not change the results of the multivariable analyses. The distribution of annual volume of delivery included two physicians who reported total deliveries far outside the rest of the population (up to 2,500 per year). To assess the effect of these outlying values, analyses were run with the full sample and repeated with a sample excluding these outliers. The exclusion did not significantly change any results, and obstetric volume was not a significant predictor of any outcome variable in our analysis.

RESULTS

Demographic characteristics are described in Table 1. In general, respondents were similar to the U.S. population of obstetricians in race or ethnicity, age,

Table 1. Demographic Characteristics of Respondents

Characteristic	Response (N=804)
Male	49 (395)
Median age	46 (37–55)
Median years practice postresidency	14 (6–23)
Parent	83 (643)
Personal experience with perinatal death (self, friend, family)	39 (312)
Position	
Attending	86 (691)
Fellow or resident	14 (112)
Race	
White or Caucasian	75 (599)
Black or African American	7 (53)
Latino or Hispanic	4 (31)
Asian or Pacific Islander	11 (91)
Native American or Alaskan Native	Less than 1 (1)
Missing or unknown	4 (29)
Currently deliver neonates	82 (660)
Median annual number of deliveries	150 (110–225)
Median annual deaths	24 (12–39)
Miscarriages (before 20 wk)	22 (11–35)
Fetal deaths more than 20 wk	1 (1–3)
Infant deaths	1 (0–1)

Data are % (n) or median (25th–75th percentile).
Results may not equal 100% due to rounding.

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Table 2. Emotional Effect on Physicians of Perinatal Death

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
Stillbirth takes large emotional toll personally (n=796)	22 (172)	53 (422)	22 (177)	3 (26)
Considered giving up obstetric practice due to perinatal death (n=792)	2 (12)	6 (50)	37 (293)	55 (438)

Data are % (n).

and obstetric volume. Fourteen percent of respondents were trainees (residents or fellows), and 49% male. Men comprised 43% of trainees and 50% of attending physicians.

Fifty-three percent of obstetricians agreed they had been adequately trained to cope with fetal and infant death. Just 29% concurred that in general, providers who deliver neonates had adequate training to cope. Physician age and years of experience post-residency did not predict adequate training.

Obstetricians were asked whether caring for patients with a current stillbirth took a large emotional toll on them personally. Of respondents, 22% strongly agreed and 53% agreed with this statement (Table 2). Further, 34% of obstetricians reported blaming themselves or feeling guilty about a perinatal death in which no cause was identified, and 43% admitted worrying about disciplinary or legal action in a perinatal death with no identified cause. Perhaps of most concern, 8% of obstetricians reported that they had considered giving up obstetric practice because of the emotional difficulty of caring for patients with a stillbirth.

The hypothesis that feeling adequately trained to cope with a death might lessen the emotional effect on the physician was tested using an unadjusted univariable model. We also tested this hypothesis with a multivariable model that controlled for physician demographics, including age, race, position (resident, fellow, or attending), sex, average obstetric volume, current practice of obstetrics, being a parent, and having personal experience (by self or a close friend or family member) with a perinatal death (Table 3).

In univariable analysis, physicians who reported adequate training to cope with fetal and infant death were significantly less likely to report having felt guilty for a death without known cause (odds ratio [OR] 0.56, 95% confidence interval [CI] 0.42–0.76, $P<.05$). These results persisted in the fully adjusted multivariable model (OR 0.58, 95% CI 0.42–0.81, $P<.05$). Individual factors which significantly predicted less guilt included Black or African-American race, male sex, and current obstetric practice. Physicians reporting adequate training were also less likely to report that they had considered giving up obstetric practice because of the emotional difficulty of perinatal death in both unadjusted (OR 0.32, 95% CI 0.18–0.57, $P<.05$) and adjusted (OR 0.34, 95% CI 0.18–0.65, $P<.05$) models. Physicians who identified their race or ethnicity as Asian or Pacific Islander had roughly three times the odds as physicians of other races or ethnicities of reporting they had considered giving up obstetrics (OR 2.73, 95% CI 1.34–5.60). Neither physician age nor sex predicted having thought about giving up obstetric practice.

Similarly, physicians who perceived their own training as adequate were less likely to worry about disciplinary or legal action when cause of death was unknown; this was significant in both unadjusted (OR 0.65, 95% CI 0.49–0.87, $P<.05$) and adjusted (OR 0.65, 95% CI 0.47–0.90, $P<.05$) models. Female sex was a significant predictor of less worry about disciplinary or legal action (OR 0.67, CI 0.47–0.96). In the univariable model, physicians who reported adequate training were less likely to report that stillbirths took a large emotional toll (OR 0.69, 95% CI 0.50–0.95, $P<.05$), but this was no longer significant once other factors were controlled for in the multivariable model.

Table 3. Adequate Training in Coping with Perinatal Death Buffers Physician Trauma

	Unadjusted	Adjusted
Stillbirth takes large emotional toll	0.69* (0.50–0.95)	0.70 (0.48–1.03)
Considered giving up obstetrics	0.32* (0.18–0.57)	0.34* (0.18–0.65)
Blamed self or felt guilty (no known cause of death)	0.56* (0.42–0.76)	0.58* (0.42–0.81)
Worried about legal action (no known cause of death)	0.65* (0.49–0.87)	0.65* (0.47–0.90)

Data are odds ratio (95% confidence interval).

* $P<.05$. Unadjusted analyses include whether physicians believe they received adequate training in coping with fetal and infant death. Adjusted analyses also control for age, sex, race or ethnicity, position (resident, fellow, or attending), being a parent, currently doing obstetrics, average obstetric volume, and personal experience with perinatal death (self or close friend or family member).

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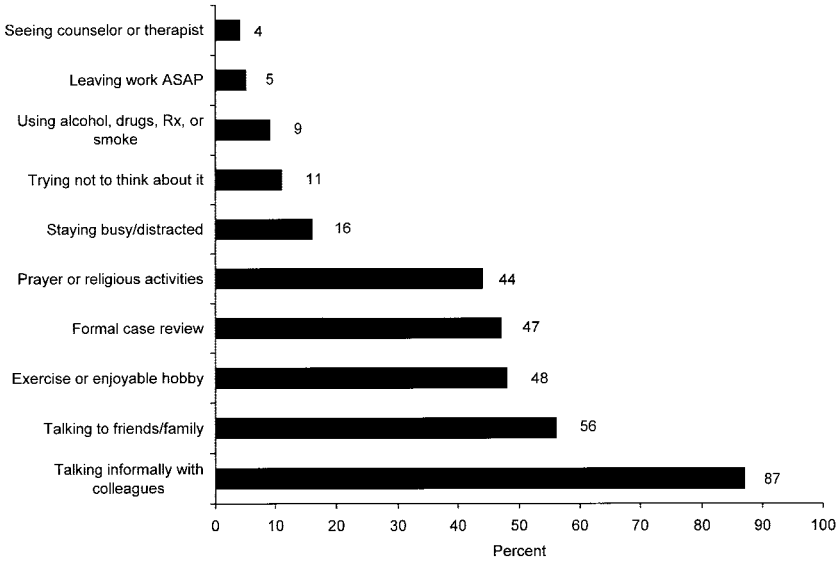

Fig. 1. Percent of respondents who reported ever using this coping method after perinatal death (allowed multiple answers, total n=778). ASAP, as soon as possible; Rx, prescription.

Gold. Physician Coping After a Neonate Dies. Obstet Gynecol 2008.

Being an attending physician was significantly associated with reporting more emotional effect (OR 3.79, 95% CI 1.90–7.57).

The survey also asked physicians to indicate all the measures they had used to cope with their own emotions after a perinatal death (Fig. 1). The two most common coping methods were talking informally with colleagues (87% of respondents) and talking about the death with friends or family (56%). Only 9% of physicians reported use of any substances (alcohol, tobacco, street drugs, or prescription medications) to cope after perinatal death, with most reporting "having a drink" as a way to relax.

Finally, respondents were asked their opinions about optimal training strategies after residency or fellowship for issues related to fetal and infant death. Overall, 15% of physicians stated no additional training was needed, either because enough was provided in residency or fellowship or because they felt skills were best learned from experience. Among these physicians, 87% said their own training had been adequate. Some physicians wrote in answers indicating they did not believe these skills could be taught. Two-thirds of physicians supported training by formal presentations or seminars, and nearly one half recommended informal gatherings for physicians to discuss difficult experiences. A number of respondents suggested that a meeting with bereaved parents could serve as a useful training strategy as well as a way of helping physicians cope with their own feelings about the loss.

DISCUSSION

This national survey reveals that perinatal death has a profound effect on delivering obstetricians, and nearly one in 10 has considered giving up obstetrics because of the emotional difficulty of caring for patients with perinatal death. It is well-known that a perinatal death has a substantive effect on bereaved families, but this study indicates that it may also take a significant personal toll on physicians as well.

Death is frequently a difficult topic for physicians. Nearly one half of physicians in a British study rated the recent death of an adult patient as having moderate or strong emotional effect on them personally.[2] Even physicians who acknowledge the profound effect of a patient death may be unprepared to cope with their own grief or to provide adequate support to colleagues.[16,17]

Other studies report discomfort among medical students, residents, and attendings in helping families and in managing their own feelings about death and bereavement.[4] One might expect that more clinical experience might temper the emotional effect of patient deaths, but this seems to vary among specialties and may be related to the amount of exposure to death and dying.[17,18] Only 77% of residents in obstetrics and gynecology felt somewhat or very prepared to counsel patients about palliative care or end-of-life issues, compared with 89% in internal medicine residents and 85% in family medicine.[19]

Guilt is not an uncommon emotion for physicians when a patient dies, and deaths involving children may be particularly stressful for physicians.[1,20–22] Physicians question care most frequently when there is an emotionally charged death; feeling guilty may not only impair the ability to provide adequate care for a grieving family but may also make it difficult to manage personal feelings and care for oneself.[23,24]

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With stillbirth, families and physicians may experience complex emotions from simultaneous birth and death. In addition, because the cause of death is often not identified, physicians may blame themselves even for unpreventable losses. Unfortunately, the concern about legal repercussions reported in this study are grounded in reality; stillbirths are the number two reason for lawsuits against obstetricians in the United States, preceded only by allegations for births with adverse neurologic outcomes.[25]

The finding that adequate training was associated with less guilt overall and less likelihood of having considered quitting obstetrics altogether suggests that better preparation may be an important strategy for coping. Training and debriefings may be helpful, and small studies have demonstrated benefit from formal instruction in issues related to death and dying.[16] Although the optimal content and method of physician education about death and bereavement is unknown, this survey does highlight the need generally to increase and improve training and support around this difficult event.

In the last several decades, interest in the quality of end-of-life care has surged, and medical schools have responded by expanding training for students in death and dying. In 1975 only 71% of medical schools offered curricular content on this issue, but by 2005 the number had jumped to 100%.[3] Unfortunately, medical students report both the amount and quality of training to be low.[4,26] Students receive an average of 12 hours of training and only two thirds of programs address cultural beliefs and practices related to death and dying.[3] Current bereavement education in medical schools typically focuses on palliative care and terminal illness. Whether such curricula prepare future physicians for coping with unexpected or traumatic deaths has not been examined.

Our study was a cross-sectional survey of U.S. obstetricians and like all retrospective surveys faces potential recall bias. We had a physician response rate of 54%, slightly higher than the 52% average response rate typically obtained from large mailings of physician questionnaires.[27] We did not survey nonresponders, so there is the potential for nonresponder bias. It is possible that physicians who responded felt stronger about issues related to perinatal death, although there is no reason to suspect a systematic bias existed. In addition, a number of demographic factors, including age, race, years of experience, and obstetric volume, mirrored national data on U.S. obstetricians, suggesting our respondents were fairly representative of the larger population of obstetricians.[28,29] We did have a higher proportion of female physicians and trainees than in the obstetric workforce as a whole. Female sex was a significant predictor for some findings, and increased female respondents might theoretically have led to higher estimates of physician guilt or lower estimates of worry about legal or disciplinary action. Finally, this survey focused on obstetricians, but family physicians and midwives also care for patients with pregnancy and infant loss, and it is possible that their opinions could differ significantly from that of obstetricians.

This large national survey provides compelling evidence that caring for patients with fetal or infant death can be profoundly stressful. It is one of few studies to evaluate physician coping skills after the death of a patient and which examines how sudden and/or unexpected deaths may be particularly difficult for physicians. Perinatal death takes a significant emotional toll on obstetricians, and physician training offers an important opportunity to assist physicians in coping when this traumatic experience occurs.

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