Effects of Shame and Guilt on Error Reporting Among Obstetric Clinicians

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ABSTRACT

Objective: To understand how the experiences of shame and guilt, coupled with organizational factors, affect error reporting by obstetric clinicians.

Design: Descriptive cross-sectional.

Setting and Participants: A sample of 84 obstetric clinicians from three maternity units in Washington State.

Methods: In this quantitative inquiry, a variant of the Test of Self-Conscious Affect was used to measure proneness to guilt and shame. In addition, we developed questions to assess attitudes regarding concerns about damaging one's reputation if an error was reported and the choice to keep an error to oneself. Both assessments were analyzed separately and then correlated to identify relationships between constructs. Interviews were used to identify organizational factors that affect error reporting.

Results: As a group, mean scores indicated that obstetric clinicians would not choose to keep errors to themselves. However, bivariate correlations showed that proneness to shame was positively correlated to concerns about one's reputation if an error was reported, and proneness to guilt was negatively correlated with keeping errors to oneself. Interview data analysis showed that *Past Experience with Responses to Errors*, *Management and Leadership Styles*, *Professional Hierarchy*, and *Relationships With Colleagues* were influential factors in error reporting.

Conclusion: Although obstetric clinicians want to report errors, their decisions to report are influenced by their proneness to guilt and shame and perceptions of the degree to which organizational factors facilitate or create barriers to restore their self-images. Findings underscore the influence of the organizational context on clinicians' decisions to report errors.

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AWHONN

Recent estimates suggest that medical errors are the third most common cause of death in the United States (Makary & Daniel, 2016), and many medical errors are preventable (James, 2013; Kohn, Corrigan, & Donaldson, 1999). Of even more concern, the prevalence of errors is underestimated, and a considerable number of these errors remain unreported (Levinson, 2012). This situation is caused, in part, by issues that stem from the professional culture of perfectionism in health care in which vulnerability is perceived as a sign of weakness, and individuals are shamed and blamed for mistakes and poor outcomes (Dekker, 2013). For obstetric clinicians, this professional culture prevents the psychological safety needed to raise concerns (Lyndon et al., 2012; Maxfield, Lyndon, Powell Kennedy, O'Keeffe, & Zlatnik, 2013) and report their errors (Miller, 2003).

Although relationships between the professional culture and safety behaviors among obstetric clinicians have been established (Lyndon et al., 2015), little is known about the specific features of the culture that cause obstetric clinicians to decide to report or conceal their errors. To learn from errors and improve the quality of maternity care, obstetric leaders and clinicians should understand these features so they can take action to create a supportive culture for error reporting.

Background

For nearly two decades, major efforts to institute safety cultures have been underway to improve patient outcomes by fostering safe collaborative learning environments in which the reporting of safety concerns and errors is promoted (National Patient Safety Foundation, 2015). Although progress has been made, including the use of team training and structured handoff communications (National Patient Safety Foundation, 2015) for transparent error reporting, the overall objective of the safety culture movement has not

been achieved (Agency for Healthcare Research and Quality, 2014; Perez et al., 2014; The Joint Commission, 2017). For obstetric clinicians, error reporting can be even more challenging than for practitioners of other specialties because childbirth is perceived as a life event rather than a medical event, and families expect perfect outcomes (Carranza et al., 2014).

The failure to make significant progress in error reporting is likely because of the limitations of the lens through which safety culture is typically conceptualized and studied, which does not include important social, cultural, and political factors (Waring, Allen, Braithwaite, & Sandall, 2015). To widen this lens, in our research we drew from advances made in the social sciences on responses to mishaps to better understand obstetric clinicians' error-reporting behaviors. Specifically, research findings indicated that responses to transgressions are largely determined by individuals' experiences of guilt and shame within their social contexts (Tangney, Youman, & Stuewig, 2009).

Guilt and Shame

Although guilt and shame are often generated by similar types of events, there are important distinctions between the two constructs that can help to understand the underreporting of medical errors. Feelings of shame are associated with perceptions of failure of self, whereas feelings of guilt are associated with perceptions of failure of behavior (H. B. Lewis, 1971). An example of this distinction is an obstetric nurse who makes a medication error and feels remorse after seeing how her actions negatively affected her patient (guilt), or she feels ashamed of herself for making the error because she attributes it to a fundamental flaw in her nature (shame).

The different responses elicited by the experiences of guilt and shame are dependent on the degree of control people perceive they have in given situations. In self-conscious emotions theory, it is suggested that when an obstetric nurse experiences guilt, feelings of regret typically motivate reparative action (i.e., reporting an error) because the nurse perceives that the source of the transgression is her own behavior, over which she has some control. On the other hand, a nurse who experiences shame may withdraw from the situation (i.e., conceal the error) because she perceives that her innate character is the source of the transgression, over which she has little control

> **In environments perceived as risky, guilt induces approach and repair behaviors, whereas shame induces withdrawal and concealment behaviors.**

(Tangney & Dearing, 2002). The withdrawal tendency is fostered when people who feel shame perceive that their environments are too risky to restore their self-images (de Hooge, Zeelenberg, & Breugelmans, 2011). In this example, when the obstetric nurse attributes the error to her own behavior (guilt), even though she may have to face difficult consequences, she will be more inclined to come forward and report the error because she believes that she can improve the situation by making amends. In contrast, when the nurse attributes the error to a deficit in herself (shame) and if she perceives her environment to be punitive, she will be more inclined to conceal the error because she is afraid that if she comes forward, her flaws will be exposed and her reputation will be ruined. Although this example uses a nurse to illustrate the effects of guilt and shame on error-reporting behaviors, these responses are applicable to all obstetric care providers.

The purpose of our study was to bring a systems perspective to the individual and organizational factors that facilitate or create barriers to error reporting among obstetric clinicians by answering the following research questions:

1. What are the degrees of proneness to guilt and shame in obstetric clinicians who practice in hospitals?
2. What are the relationships between proneness to guilt and shame among obstetric clinicians and their attitudes with regard to error reporting?
3. How do organizational factors affect error reporting among obstetric clinicians?

Methods
Design
A descriptive, cross-sectional design was used to evaluate the degrees of proneness to guilt and shame among obstetric clinicians and the relationships among these variables and the clinicians' attitudes about error reporting. Additionally, organizational factors that facilitate or create barriers to error reporting were assessed. The study protocol was approved by three institutional review boards (one researcher's institutional review board and the boards of two of the study

organizations), and informed consent was obtained from the participants.

Participants and Settings

All obstetric nurses, midwives, and physicians who practiced in the maternity units at three hospitals in Washington State were invited to participate in the study. The maternity units differed in size and services. Two of the sites were large, community-based, maternity units at which 2,000 to 3,000 births occur each year. One was a referral center that provides Level III neonatal care, and the other provides Level II neonatal care. These units provided 83% ($n = 86$) of the study respondents (38% [$n = 39$] and 45% [$n = 47$], respectively). The third site was a small, community-based maternity unit (Level I) where approximately 200 births occur annually. This unit provided 17% ($n = 18$) of the study respondents.

Quantitative Data Collection and Analysis

Measures. The Test of Self-Conscious Affect (TOSCA) in its various forms has been widely used in a variety of settings (Ferguson, Brugman, White, & Eyre, 2007), although, to our knowledge, it has not previously been used in health care. It is a validated, theory-based, multiple-choice instrument in which respondents are asked to consider how they would react to hypothetical guilt- and shame-inducing scenarios that people are likely to encounter in their daily lives. The scenarios include associated responses that reflect guilt and shame self-talk and behaviors. For each scenario, respondents rate how likely they are to react in accordance with the descriptions on a 5-point scale, with responses that range from *not likely* to *very likely*. We used Brown's (2009) version of the 11-scenario short TOSCA, which was shown to correlate with the well-established longer version (TOSCA-3, $r = 0.93$ [guilt] and $r = 0.94$ [shame]) and demonstrated Cronbach's alpha reliability coefficients that ranged from .76 to .88 for the shame scale and .70 to .83 for the guilt scale (Tangney & Dearing, 2002).

To assess participants' attitudes about error reporting, four investigator-developed questions were used (see Supplemental Table S1). These questions were designed on the basis of reviews of questions used to target reporting behavior from previously developed safety climate surveys (The Health Foundation, 2011) with adaptations to expose distinctions between guilt and shame in maternity units. Specifically, the questions were used to assess participants' concerns about

damages to their reputations if peers and supervisors knew of the clinicians' mistakes and their preferences to keep certain or all mistakes to themselves. Responses were based on a 7-point Likert scale and ranged from *strongly disagree* to *strongly agree*. Cronbach's alpha coefficients for the total instrument showed acceptable internal consistency ($\alpha = .75$).

Procedure. Anonymous electronic surveys were sent to 192 registered nurses (RNs) and certified nurse-midwives (CNMs) and 69 physicians (obstetric, family practice, and obstetric anesthesia). The response rate was 40% ($n = 104$). The data from 20 respondents were discarded because of missing values, which resulted in a final sample of 84 respondents: 67 nurses (64 RNs and 3 CNMs) and 17 physicians (16 obstetricians and 1 anesthesiologist). The final response rate was 32%. All participants provided demographic information (sex, profession, number of years worked in maternity unit, and number of years worked in profession).

Analysis. All survey data were imported into SPSS for Windows, version 22. Descriptive statistical analyses were conducted, and scores for the primary variables (proneness to shame and guilt and attitudes about error reporting) were compared among the three hospitals using analysis of variance. No significant differences were found; therefore, the hospital groups were combined for subsequent analysis.

To characterize the degrees of proneness to guilt and shame, Brown's (2009) gender-based low-, moderate-, and high-range categories were used (see Supplemental Table S2). These range categories were determined from previous studies (Tangney & Dearing, 2002). For attitudes about error reporting, mean scores were calculated for the following four variables: reputation with peers, reputation with supervisors, keeping certain mistakes to oneself, and keeping all mistakes to oneself. Finally, Pearson's correlations were computed to determine the relationships among proneness to guilt and shame and attitudes about error reporting.

Qualitative Data Collection and Analysis

Interview questions. The interview included introductory questions to provide context and the primary questions to explore which organizational factors contributed to environments that felt psychologically safe or threatening for error

Table 1: Participant Demographic Characteristics (N = 84)

Characteristic	n (%)
Sex	
Female	76 (90.5)
Male	8 (9.5)
Profession	
Nurse-midwife	67 (79.8)
Physician	17 (20.2)
Years working in maternity unit	
0–2 years	20 (23.8)
3–5 years	11 (13.1)
6–10 years	14 (16.7)
11–20 years	22 (26.2)
More than 20 years	17 (20.2)
Years working in profession	
0–2 years	8 (9.5)
3–5 years	8 (9.5)
6–10 years	11 (13.1)
11–20 years	21 (25.0)
More than 20 years	36 (42.9)

reporting. See Supplemental Table S3 for interview questions.

Procedure. On completion of the survey, respondents received an electronic invitation to participate in the interview. Those who volunteered to be interviewed were directed to a separate secure Web page to provide demographic and contact information. Although the intent was to draw from a volunteer pool large enough to conduct purposeful sampling and attain a demographically representative group of

20, only 19 of the 104 survey respondents volunteered; thus, all were selected. Interviewees included 15 women and 4 men: nine RNs, seven obstetricians, two CNMs, and one obstetric anesthesiologist. Semistructured interviews were held in person in a private room at each of the hospitals and lasted approximately 1 hour.

Analysis. Interviews were audiotaped and transcribed verbatim. Data were analyzed with the use of inductive and deductive coding methods and a three-step thematic analysis process (i.e., open coding, axial coding, and theoretical coding; Ezzy, 2002).

Results

Quantitative

The sample comprised mostly women (90.5%) and RNs (79.8%, includes CNMs). More than one fourth of the respondents had worked in the maternity unit for 11 to 20 years, and most had been in their profession for more than 20 years (see Table 1).

To address the first research question and determine the degrees of proneness to shame and guilt among the clinicians, results from our analysis indicated that most respondents scored in the moderate range for shame (44.0%), fewer scored in the low range (35.7%), and the fewest scored in the high range (20.2%). For guilt, most respondents scored in the high range (46.4%), fewer scored in the moderate range (38.1%), and the fewest scored in the low range (15.5%; see Table 2).

With regard to attitudes about error reporting, as a group, the respondents expressed neutral responses concerning damages to their reputations if a peer (mean $[M]$ = 4.36, standard deviation $[SD]$ = 1.684) or supervisor (M = 4.24, SD = 1.85) knew about a mistake that they had

Table 2: Main Descriptive Statistics

Measure	Low Range	Moderate Range	High Range
Frequency of shame	36% (n = 30)	44% (n = 37)	20% (n = 17)
Frequency of guilt	16% (n = 13)	38% (n = 32)	46% (n = 39)

	Peer knew of my mistake	Supervisor knew of my mistake	Certain mistakes to myself	All mistakes to myself
Mean error-reporting attitude score (*SD*)	4.36 (1.68)	4.24 (1.85)	2.33 (1.59)	1.32 (0.40)

Table 3: Correlations Among Shame/Guilt Scores and Attitudes About Error Reporting

Emotion	Reputation With Peers	Reputation With Supervisors	Keeping Certain Mistakes to Myself	Keeping All Mistakes to Myself
Shame	.28[a] (.01)	.24[a] (.03)	−.01 (.91)	−.05 (.68)
Guilt	.07 (.51)	.04 (.70)	−.26[a] (.02)	−.29[b] (.01)

[a]Correlation is significant at the $p = .05$ level (two-tailed). [b]Correlation is significant at the $p = .01$ level (two-tailed).

made (see Table 2). In contrast, respondents generally disagreed that it would be preferable to keep certain mistakes to themselves in their maternity unit ($M = 2.33$, $SD = 1.59$) and strongly disagreed that it would be preferable to keep all mistakes to themselves ($M = 1.32$, $SD = 0.40$).

Bivariate correlations were calculated to address the second research question and determine the relationships among the respondents' proneness to guilt and shame and their attitudes about error reporting (see Table 3). There was a significant positive relationship between shame proneness scores and perceptions that respondents' reputations would be damaged if their peers ($r = 0.28$) or supervisors ($r = 0.24$) knew of a mistake they had made. In contrast, a significant negative relationship was found between proneness to guilt scores and perceptions related to keeping some ($r = -0.26$) or all mistakes to oneself ($r = -0.29$). There were no relationships between shame proneness and perceptions about keeping some or all mistakes to oneself or guilt proneness and perceptions about concerns that one's reputation would be damaged if peers or a supervisor knew of their mistake.

Qualitative

The qualitative inquiry was conducted to address the last research question and understand how organizational factors affect error reporting among clinicians. The pool of interviewees included 19 clinicians who were in their professions for at least 16 years; most had been in practice for 20 to 35 years and had worked in at least three different hospitals. Their responses to introductory questions suggested that the survey was most likely answered honestly because of its anonymity and the lack of repercussions. All but one of the interviewees stated that the culture of shame resonated with their past experiences with errors. None of the interviewees were surprised by recent study findings on the underreporting of errors (Levinson, 2012), and they presumed that underreporting occurred in their maternity units as well. Although most of the interviewees stated that they would be compelled to report their errors because of their personal values (e.g., to do the right thing), their comments indicated that their decisions to do so were influenced by fears triggered by actual and/or perceived threats in their environments, such as punitive action, negative judgments, or ostracism.

Table 4: General Maternity Unit Themes That Facilitate or Hinder Error Reporting

Theme	Description
1. *Type of Error*	Whether the error is perceived as insignificant or significant, whether it adversely affected a patient, and whether it was an error at all
2. *Structural Barriers of the Error Reporting System*	Extent to which reporting systems are tedious and difficult to use
3. *System of Delivering Care*	Perceived dysfunctions in the care delivery systems used on a daily basis
4. *Desire to Be a Good Clinician*	Desire to be perceived by others as a good nurse/doctor
5. *High Stakes of Making Errors*	Potential harm to patients/clinicians caused by mistakes
6. *Accountable Versus Punitive*	Perceived conflict between holding clinicians accountable for mistakes and being punitive

Table 5: Maternity Unit Cultural Themes That Facilitate or Hinder Error Reporting

Theme	Supports Psychological Safety	Creates a Threatening Environment
1. *Past Experiences With Responses to Errors*	Supportive responses that appropriately addressed the error	Lack of response/support after an error
	Balance of support for the clinician and responsible management of the error	Threatening response (perceived or actual) after error
	Positive interactions at the individual level (peers)	Lack of transparency about the error and how it was managed
	Organizational, error reviewing mechanisms that are nonjudgmental/nonthreatening	Organizational, error reviewing mechanisms that are not performed well and lead to distrust
2. *Management and Leadership Styles*	Managers/leaders who are approachable, accessible, able to mediate conflict, and interactive	Managers/leaders who • Cause staff to feel vulnerable, threatened, and unlikely to share mistakes • Treat staff disrespectfully • Talk with staff only when something has gone wrong
	Foster open/safe environments for staff to independently solve problems	
3. *Professional Hierarchy*	Staff have the ability to activate the chain of command without repercussions	Professional hierarchies that value certain members more than others
	Support/reinforcement of chain of command activation is provided regardless of whether the reason for activation is "justified"	
	A designated intermediary is available for situations in which nurses and doctors are not communicating effectively	
4. *Relationships With Colleagues*	Support from colleagues	Lack of close relationships among colleagues
	Small, trusted groups of colleagues	Competition between colleagues
	Mostly developed informally	
	Some developed through formal structures, such as practice groups	
		Cliques, pecking orders, "warring factions"

When asked to reflect on organizational factors that facilitated or hindered error reporting, the interviewees discussed general and cultural themes. The general themes referred to contextual factors that affected whether an error was reported (see Table 4), regardless of whether the environment felt supportive or threatening. The general themes included (a) *Type of Error*, (b) S*tructural Barriers of the Error Reporting System*, (c) *System of Delivering Care*, (d) *Desire to Be a Good Clinician*, (e) *High Stakes of Making Errors*, and (f) *Accountable Versus Punitive.* Cultural themes referred to organizational factors that affected error reporting depending on whether

the environment felt psychologically safe or threatening (see Table 5). These themes consisted of (a) *Past Experience With Responses to Errors*, (b) *Management and Leadership Styles*, (c) *Professional Hierarchy*, and (d) *Relationships With Colleagues.* The following responses from interviewees highlight some of these themes:

I bet you [that] the people making mistakes could tell a lot if they felt safe to do so and [could] be part of the solution … if I knew my manager wasn't going to, you know, give me a 2 on my eval[uation], if I knew my peers weren't going to talk behind my back

To be accountable is to engage in critical conversations, maintain agreements, and be respectful, whereas blame is an emotional process that discredits the blamed.

when I leave my shift … I might want to report.

Physicians don't want to say "I messed up" because, you know, you want to be a really good doctor. You don't want to screw up. You don't want to be shamed by nurses, anesthesiologists, other colleagues, and the patient too.

Representative responses for each theme can be found in Supplemental Tables S4 and S5.

Discussion

Effects of Guilt

Our analysis showed that 46% of respondents scored in the high range for proneness to guilt. This finding is encouraging because the TOSCA is thought to measure adaptive and not maladaptive guilt (Luyten, Fontaine, & Corveleyn, 2002). Adaptive guilt has been shown to have positive effects, such as improved work performance and taking reparative action after a transgression (Cohen, Panter, & Turan, 2012; Tangney & Dearing, 2002).

We found a significant negative relationship between proneness to guilt and attitudes about concealment of mistakes. Specifically, as guilt scores increased, attitudes that one should keep mistakes to oneself decreased. This finding is consistent with emotions research, which indicates that guilt rather than shame is the moral emotion that motivates people to take actions consistent with societal norms and moral standards (Stuewig & Tangney, 2007; Tangney & Dearing, 2002). Our findings suggest that guilt is the emotion involved when clinicians decide to report an error instead of concealing it.

Effects of Shame

A notable 20% of the study respondents scored in the high range for proneness to shame. This result is cause for concern, considering the associations found between proneness to shame and the tendencies to withdraw from transgressions (Tangney & Dearing, 2002); conceal errors (Darby, 2013); and experience problematic mental health conditions, such as anxiety, depression, and suicidal ideation (Stuewig & Tangney, 2007).

In our study, proneness to shame was positively related to clinicians' perceptions that their reputations would be damaged if their peers or supervisors knew of a mistake they had made. This result is consistent with results of previous emotions studies in which researchers found that people who experience shame in response to failures or transgressions are particularly concerned about others' evaluations of them (Tangney & Dearing, 2002). The experience of shame alerts individuals to threats to their social selves and motivates action to protect self-image (de Hooge, Zeelenberg, & Breugelmans, 2010; Tangney & Dearing, 2002). If people believe that their reputations may be damaged by engagement in approach behaviors, such as expressing remorse and offering to help, they will instead exhibit avoidance behaviors, such as withdrawing (de Hooge et al., 2011). Accordingly, the positive correlation between concern about others' evaluations and proneness to shame in this study suggests that those who are more prone to shame may be more likely to conceal their errors.

Factors That Affect Clinicians' Decisions to Report Errors

Organizational factors that affected error reporting were categorized into general and cultural themes. Of the general factors, aspiration to be seen as a good practitioner was salient. Interviewees' definitions of *good* were tied to expectations that were learned in educational programs and developed through professional socialization. The expectation of perfection, which included not showing weakness, was commonly suggested. Although this finding is not new and has been identified by other researchers (Perez et al., 2014), it is a testament to the persistence of the shame culture that is rooted in perfectionism. From their investigations, Leeming and Boyle (2004) suggested there are valid reasons this culture persists despite the efforts in health care to change it. They claimed that shame is especially problematic in professions in which the expected standards are difficult to achieve but not universally acknowledged as such and in which individuals place a high degree of importance on the successful enactment of their roles (Leeming & Boyle, 2004). In these situations, the fear of being stigmatized as a "spoiled identity" (M. Lewis, 1998) will persist, and substantial efforts to avoid this stigmatization will be used.

Another general factor was the struggle that clinicians experienced when thinking about accountability versus punitive action. Although our interviewees believed that clinicians should be held accountable for their practices, their comments reflected a dichotomy between holding someone accountable and not assigning blame. This was especially pronounced for interviewees who were leaders and felt responsible for ensuring compliance with practice standards. When errors occurred, leaders found it difficult to think about how to hold the responsible clinician accountable without inflicting the negative effects of blame.

This conflict may result from the ongoing debate in health care about the appropriate balance between systems-focused no blame and individual-focused accountability (blame) approaches to errors (Wachter & Pronovost, 2009). The more recent trend is the accountability movement, in which the role of the individual is emphasized rather than systemic causes (Perry, Mosher, Persoon, Bass, & Fairbanks, 2013). Unfortunately, individual accountability and blame are often thought to go hand in hand, which leads to interpretations that justify punitive action in response to frontline human error and clinicians' hesitancy to report (Dekker & Leveson, 2014; Perry et al., 2013). However, accountability and blame do not need to be conflated. Engaging in critical conversations, maintaining agreements, and being respectful are emphasized in accountability, whereas blaming is an emotional process that discredits the blamed (Paul, 1997).

With regard to the cultural factors related to error reporting, interviewees noted that their decisions were influenced by whether the environment felt safe or threatening. The barriers mentioned frequently fell within the theme of *Relationships With Colleagues*. In environments that interviewees perceived as unsafe to report errors, disrespectful communications were not uncommon. Judgment and gossip appeared to be hallmarks of these environments, along with cattiness and retaliation. Competition was also a common thread. Interviewees noted that in these environments, they did not want to share their challenges with colleagues because they knew that they would not receive support from them. These findings are consistent with other recent reports (Lucian Leape Institute, 2013; The Joint Commission, 2017) in which the psychological harm inflicted on clinicians as they engage with their work environments was described.

> **Nurse and physician leaders can create supportive reporting environments by addressing the underlying beliefs of infallibility and the expectation of perfection.**

Another cultural factor was past experiences interviewees had with responses to errors in their units, whether the errors were their own or those of their colleagues. In threatening environments, the interviewees described how colleagues were fired and other punitive actions were taken by management; the interviewees perceived these actions as indications that it was not safe to raise concerns or report errors.

Although interview questions prompted a focus on the risks of error reporting, there were many bright spots to celebrate. Interviewees described experiences in which they and their colleagues felt safe reporting their errors despite the inherent discomforts of disclosure. In maternity units in which interviewees felt more psychologically safe to report errors, several participants mentioned that peers extended support by offering consolation and sharing stories of their own mistakes. One interviewee shared a story of receiving a call from a senior physician who had previously made a similar error to his. He explained that this kind of support was extremely helpful for dealing with his grief and shame. Interviewees also spoke about managers and other supervisors who extended support while at the same time did not dismiss the need to address the cause of the error. Instead of blaming and shaming, these leaders were nonjudgmental and framed the events as learning opportunities. One interviewee described how her nurse manager created a safe environment in which to report errors by sending out weekly newsletters to staff that included errors that took place on the unit. The manager reported the *what* of a particular error but not the *who*, and discussions of what was learned from the error, how it was addressed, and how it could be prevented in the future were also included.

Finally, because all interviewees had been in their professions for many years, when they reflected on changes they had seen over their careers, most of them believed the culture was shifting. One interviewee discussed how he was trying to change the culture by leading postevent debriefs in which he made explicit the intent to create a safe, no-blame forum to learn from what went wrong and consider what could be improved.

According to the interviewee, these debriefs were quite popular among the unit providers and staff.

From the synthesis of quantitative and qualitative results, it is clear that although respondents did not prefer to keep errors to themselves, their decisions on whether to report errors were dependent on myriad considerations. Our findings suggest primary factors regarding their error discourse involved their beliefs about the individual consequences and collective expectations of the error behavior, which is consistent with findings from other studies on such considerations (Pfeiffer, Manser, & Wehner, 2010). These beliefs often result from perceptions of what is and is not acceptable within an organizational culture.

Implications for Practice

Although intellectually everyone knows that humans make mistakes, the belief in infallibility has been internalized by obstetric clinicians and leads to an expectation of perfection. A greater acceptance of human fallibility in patient care is required to learn from past errors and reduce errors in the future. Many leaders in health care believe that this shift in thinking is already occurring because of the advances made in the field of human factors, which emphasizes a system rather than an individual approach to address errors (Dekker, 2011). However, these efforts have mostly occurred at the surface level and have not yet penetrated the underlying cultural belief systems. Evidence of this difference between surface-level and deeper change includes the common leadership practices of encouraging transparency and asking clinicians to report errors while simultaneously initiating patient safety campaigns to strive for error-free systems and zero errors (Perry et al., 2013). The contradiction in this message comes from the discrepancy between the desire to invite clinicians to be vulnerable and to come forward with their errors and the implicit notion that errors should not be made. Errors are an unavoidable part of nursing and medical practice. When this is truly acknowledged and accepted, greater emphasis can be placed on building systems and processes to prevent and catch human errors and mitigate the harm the errors may cause to both the patients and the clinicians.

To shift obstetric unit cultures rooted in perfection and subsequent shame to cultures that are supportive of learning and accountability, there must be a focus on creating environments of openness, trust, and supportive relationships. Doing so will foster greater willingness to report errors and learn from mistakes. With this study, we show that leader and peer behaviors are critical to the creation of this kind of culture. Leaders can take the following actions: (a) align unit activities with the values of openness, trust, and supportive relationships; (b) promote open door accessibility and allow providers and staff to voice concerns and celebrate accomplishments; (c) frame and address errors as learning opportunities and keep the focus of coaching on behaviors (guilt) and not on character (shame); (d) model vulnerability and learning by publicly sharing their own mishaps and how they are learning from them; (e) ask for unit members help to solve unit problems; and (f) involve unit members in ongoing improvements based on what they are learning from their error reporting.

Regarding behaviors among colleagues, interviewees identified specific behaviors that helped create a supportive environment to report their errors. In particular, colleagues should (a) reach out to someone who has made an error (they can set the stage for safe sharing by showing concern for their colleague's well-being and sharing their own experiences with mishaps and what they learned from them), (b) refrain from participation in blame discussions and gossip that can have disparaging effects on a colleague's reputation, and (c) be mindful of power differences that stem from the professional hierarchy and how they can impede raising concerns and errors. For those with greater status, provide positive reinforcement and support for disclosure to those with lower status.

These practices lay the foundation for the creation of a culture in which learning and accountability for errors can be successfully cultivated. Through working together to create this culture, leaders and peers strengthen their relationships, which results in greater openness and trust and leads to commitment to transparent error reporting, investigation, and process improvement.

Limitations

Our study had several limitations. First, in the TOSCA, general scenarios are used to assess proneness to guilt and shame. Although researchers showed that industry-specific scenario scores correlated with general TOSCA scores (Tangney & Dearing, 2002), considering the magnitude of the emotional effects of errors on obstetric clinicians found in this study, obstetric-specific scenarios

could be used to show greater sensitivity to proneness to shame and guilt among obstetric clinicians. Second, the convenience sample for interviews lacked representation from demographic categories present in the survey pool. In particular, less-senior clinicians, who are most vulnerable to experiencing the negative effects of shame, were not represented.

Conclusions

We brought a systemic lens to understanding error-reporting behaviors in settings in which obstetric care is delivered. Our findings suggest that although obstetric clinicians aspire to report their errors, their decisions to do so are influenced by their propensity to experience guilt and shame and by their perceptions of the degree to which their maternity unit culture facilitates or hinders them in restoring their self-image. With this research, we add to the literature highlighting the emotional challenges clinicians face when deciding to report their errors and suggest ways to create a supportive culture that enables obstetric clinicians to work through their emotions, leading to individual and collective accountability and learning.

Acknowledgment

Supplementary Material

Note: To access the supplementary material that accompanies this article, visit the online version of the *Journal of Obstetric, Gynecologic, & Neonatal Nursing* at http://jognn.org and at https://doi.org/10.1016/j.jogn.2018.03.002.

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