Introduction

Pediatric deaths are no longer expected due to improvements in sanitation, discovery of antibiotics, and development of vaccines. However, more than 50,000 children die annually and most deaths occur in hospital settings. Accidents and injury remain the leading cause of death but millions of children with complex health care needs will still require special consideration for end of life care. Pediatric residents are estimated to experience or become involved in six patient deaths annually. Nurses are anticipated to participate in two to five deaths annually. Some studies have shown that these two health care teams are most vulnerable to PTSD after a patient’s death (1).

Pediatric residents are in a unique position within the patient care hierarchy given their level of inexperience and sense of responsibility for their patients. There is also little time available for grieving given the high volume workload in most academic centers. Particular barriers of grieving for residents include long work hours, being far from friends and family, and the perception of being judged by their upper levels and attending physicians (2). Little time is spent in medical school and residency to help prepare them for these situations (3). Nurses spend the most time at the bedside and are often the first to receive families concerns, fears, and frustration thus developing strong emotional bonds. Studies have found a high
turnover rate among oncology nurses thought in part to be due to burnout and a lack of bereavement support (2,4).

Recent literature has set out to better define compassion fatigue and burnout among health care professionals. Burnout can be defined as a prolonged response to chronic physical or emotional stressors that results in exhaustion and ineffectiveness. Some studies have suggested that providers with insufficient training and experience in end of life care are susceptible to feelings of burnout. Compassion fatigue has been defined as a specific type of burnout following exposure to patient suffering that may manifest in emotional, behavioral, and cognitive changes (5). Effective communication between health care providers and patients is a well-established necessary art form, however, when discussing end of life care many providers feel unprepared. This may then translate into parent dissatisfaction in the end of life care their child received (1). To address this problem, the AAP has released a consensus report emphasizing the need to educate pediatricians about palliative care.

There is a deficit in residency education on the topics of bereavement, coping with patient death, and discussing end of life care with patient’s families. Currently, our program offers no formal meeting after a child dies. The goal of this project was to determine if there is a need for bereavement counseling and if so, what type of counseling would be most beneficial.

**Methods**

Literature was reviewed to further explore educational initiatives that have already taken place at other residency programs including team debrief models,
multidisciplinary meetings, and educational seminars (6, 7, 8, 9). An anonymous electronic survey was sent to all pediatric residency classes at this institution in January 2014 to determine their exposure and experiences surrounding patient death (Appendix A). After analyzing the results of the survey I then created a Power Point presentation to define professional bereavement, review prior literature, present the survey results, and discuss ideas for a multidisciplinary approach to post-patient death debrief or education sessions. This was presented at a noon conference for the pediatric residents in this institution in February 2015. Given the time lapse between the initial survey and the presentation, a paper pre-survey with the same questions was distributed at the start of the presentation. A paper post-presentation survey was distributed to assess knowledge gained and preferences for educational sessions (Appendix B). In March 2015, the same pre-survey, presentation, and post-survey were given to nursing staff, respiratory therapists, and child life specialists during Nursing Grand Rounds (NGR). At the end of both presentations time was available for discussion. The results of the pre- and post-surveys were analyzed for the anonymous electronic survey, noon conference, and Nursing Grand Rounds.

Results

The anonymous electronic pre-survey was distributed to pediatric residents and completed by 34 out of 36 residents. The 34 respondents included twelve at the level of PGY-1, twelve at the level of PGY-2, and ten at the level of PGY-3. The data from the initial survey was discussed in both presentations. At the noon conference, there were a total of 19 residents, which included ten PGY-1, six PGY-2, and three
PGY-3. The 19 residents also completed the post-survey. The NGR consisted of five nurses, two respiratory therapists, and two child life specialists and all completed the pre- and post-surveys.

The above graph represents all pre-survey responses for the number of patient deaths experienced in the respondent’s careers. Most residents overall experienced 2-5 whereas NGR participants experienced >10.

When asked if the residents understood what professional bereavement meant following an inpatient death, 65% answered no prior to the presentation. Of the Nursing Grand Rounds respondents, only 11% answered no. After the presentation, 100% answered yes from both groups.
The above graph represents the roles respondents played in the patient deaths they experienced and they were given the opportunity to select more than one response. Resident's and NGR participants experienced patient death in almost every capacity, most having been told about a death from colleagues.

When asked what types of bereavement support they sought, the large majority relied on family and coworkers. There was a slight predominance for all in seeking coworker support.
Prior to any formal introduction to types of counseling, 74% preferred the team debrief model for bereavement support. After the presentation, 94% preferred the team debrief model for bereavement support.

Discussion

Prior to developing this project, I discussed this topic with several residents in different classes to assess their comfort level with this subject on an informal basis. Interestingly, the upper levels that have had more experience with end of life care were more enthusiastic than the interns and second years. After the presentation, there was a greater understanding and more interest in seeking support. This was reflected in the survey results above. Most residents were unaware of resources currently available and sought peer or family support when trying to cope with patient death. Most were interested in the team debrief model. At the end of the presentation, we discussed how to implement this model in our program. In addition to discussing a particular patient after their death in a debrief format, there was interest in receiving structured education on the topics of end of life care including how to have these discussions with families.
This study was able to successfully teach pediatric residents the fundamental factors involved in bereavement and the dangers of compassion fatigue and burnout. This presentation was also successful in initiating conversations about a topic that many consider difficult. Upon further discussion during NGR, one nurse mentioned that several of her peers did not want to come to the talk for fear that it would be too sad. At the end of the presentation, most verbalized an appreciation for this discussion because they recognized this as a topic that needs to be addressed. We were also able to discuss ways to further support the team and allow more time for grieving. For example, rather than learning of a patient’s death via word of mouth, we hope to develop a system in which one designated person from each team will communicate the news that a patient has died at the beginning of a meeting to allow for a few minutes to process this information rather than having to rush back to work.

There are limitations to this study including the small sample size. Most residents were involved in these discussions but only a very small group of nurses contributed. More input from nursing staff would be required to better define their specific needs in the process of developing a multidisciplinary team debrief.

**Conclusion**

There is a need for bereavement education in residency. Most residents and nurses seek coworker support. For formal sessions, most prefer a team debrief approach in which all members of the health care team who were involved with that patient’s care participate. The ultimate goal of this project moving forward is to develop an educational curriculum to help residents become more proficient in
coping with patient loss and in turn become more confident in their ability to have end of life discussions with families.

References


Appendix A

Bereavement Pre-Survey

1. What discipline do you represent?
   - Pediatric Resident
   - Emergency Medicine Resident
   - Family Medicine Resident
   - Attending Physician
   - Nurse

2. How many years of experience do you have in your discipline?
   - ≤1
   - 2
   - 3
   - 4
   - ≥5

3. I understand what professional bereavement is following an inpatient death.
   - Yes
   - No

4. How many experiences have you had with the inpatient loss of a pediatric patient?
   - 0-1
   - 2-5
   - 6-10
   - >10

5. What role(s) have you played in the inpatient loss of a child? Check all that apply.
   - Primary caretaker
   - Cross covering
   - Assisted in a code
   - Bystander
   - Told about the death from the team

6. In general, what bereavement support have you received after experiencing a patient loss? Check all that apply.
   - Did not feel the need
   - Talked with my spouse/family
   - Talked with my staff/coworkers
   - Talked with the patient's family
   - Attended their funeral
   - Sought professional/religious counseling
   - Other (please specify) ___________________________
7. If you did not seek bereavement support following a death, what prevented you from doing so?
   - Not enough time
   - Didn’t know of any available resources
   - Didn’t feel it was appropriate
   - Felt ashamed
   - Felt guilty
   - I did seek support

8. If we had a bereavement support session, what would you like the format to be?
   - Group counseling
   - Individual counseling
   - Fact gathering session
   - E-Care
   - Formal M&M
   - Team debrief
   - Other (please specify) ___________________________

9. If you were to partake in a bereavement wrap up session, who do you think would be most appropriate to lead the session?
   - Attending physician involved in the death
   - PICU attending involved with the code or death
   - Resident physician(s) involved in the death
   - One designated physician for all deaths
   - Palliative Care Team
   - Chaplain
   - Other (please specify) ___________________________

10. Who do you feel would be appropriate to involve in the session? Check all that apply.
    - Residents
    - Medical students
    - Attending physicians
    - Nurses
    - Respiratory therapists
    - PT/OT/ST
    - Pharmacy
    - Directly involved staff members only
    - Patient’s family
    - Primary care physician
    - Ancillary staff (nurse tech, secretaries)
    - Other (please specify) ___________________________
Appendix B

Bereavement Post-Survey
1. I understand what professional bereavement is following an inpatient death.
   a. Yes
   b. No
2. If we had a bereavement support session, what would you like the format to be?
   a. Group counseling
   b. Individual counseling
   c. Fact gathering session
   d. E-Care
   e. Formal M&M
   f. Team debrief
   g. Other (please specify) ___________________________
3. If you were to partake in a bereavement wrap up session, who do you think would be most appropriate to lead the session?
   a. Attending physician involved in the death
   b. PICU attending involved with the code or death
   c. Resident physician(s) involved in the death
   d. One designated physician for all deaths
   e. Palliative Care Team
   f. Chaplain
   g. Other (please specify) ___________________________
4. Who do you feel would be appropriate to involve in the session? Check all that apply.
   a. Residents
   b. Medical students
   c. Attending physicians
   d. Nurses
   e. Respiratory therapists
   f. PT/OT/ST
   g. Pharmacy
   h. Directly involved staff members only
   i. Patient’s family
   j. Primary care physician
   k. Ancillary staff (nurse tech, secretaries)
   l. Other (please specify) ___________________________