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Title of Project: Building a Comprehensive Palliative Care Curriculum for Residents

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Background

Despite continuous advancements in the medical field, death in children 1 to 19 years of age has remained relatively stable with the crude death rate at 7.2 deaths per 1000 population in 2014 and over 19,000 deaths in 2019, with many of these deaths occurring in a hospital setting.^{1,2} Caring for a dying child requires physician expertise in communication, symptom management, prognostication, and bereavement, areas in which families often express dissatisfaction in quality of care.^{3,4}

Recent surveys conducted at large children's hospitals across the nation have shown that most pediatric residents are exposed to at least one death at the completion of their training with an average of 4-6 direct encounters; however, a majority of these residents also expressed lack of comfort in palliative and end-of-life (EOL) care.⁵⁻¹⁰ While the presence of a Palliative Care team has been shown to improve resident comfort levels, more formalized education is needed in order to provide consistent and compassionate care to patients and their families.¹¹ Structured didactics and simulation training have been used to varying degrees, however pediatric palliative care curricula currently lack standardization and appropriate outcome evaluation methods.¹²⁻¹⁴

Aims

Through this study, our goal is to identify residents' perceived needs for pediatric palliative care education and evaluate the impact of structured interventions in the form of didactics and simulation training on overall resident comfort with palliative and EOL care.

Methods

Based on a literature review, a needs assessment survey will be sent to the current residents of NewYork-Presbyterian/Morgan Stanley Children's Hospital Pediatric Residency program. Confidentiality will be maintained by having each resident generate a deidentified code. This survey will include, but is not limited to, questions regarding the following topics: 1) participant demographics, 2) resident exposure to formal and informal pediatric palliative and EOL care, 3) comfort level with initiating/leading discussions on goals of care, symptom management, the dying process, and postmortem care, and 4) resident opinions on improvement and expansion of the current curriculum. Questions will either be multiple choice, open-ended, or based on a Likert scale.

A series of formal didactics and informal rotation-specific teaching will be given by the Palliative Care team as listed below:

1. Introduction to Palliative Care – August 9, 2022
2. Death and Dying – September 26, 2022
3. End of Life Care – May 23, 2023
4. Mock No Code – June 6, 2023
5. Rotation-specific teaching on Oncology and Intensive Care rotations

At the end of the academic year, an evaluation survey containing similar questions will be sent to the same cohort of residents with additional questions regarding attendance of structured didactic sessions and other experiential learning throughout the year.

In addition to the overall needs assessment and end-of-year evaluation, a similar, smaller-scale study will be conducted on the Mock No Code session using pre- and post-surveys to analyze the effectiveness of palliative care simulation training.

For both parts of the study, statistical analysis using a paired t-test will be conducted using a p-value < 0.05.

Potential Benefits

Benefits include identifying areas for improvement in the pediatric palliative care curriculum and the potential of resident-led augmentation of the current didactic series to address specific topics of interest and concern.

Potential Risks

None identified

Limitations

Potential limitations of this study include small sample size due to inadequate response to the surveys and lack of control group.

References

1. Murphy SL, Mathews TJ, Martin JA, Minkovitz CS, Strobino DM. Annual Summary of Vital Statistics: 2013-2014. *Pediatrics* 2017;139(6). DOI: 10.1542/peds.2016-3239.
2. Heron M. Deaths: Leading Causes for 2019. *Natl Vital Stat Rep* 2021;70(9):1-114. (<https://www.ncbi.nlm.nih.gov/pubmed/34520342>).
3. Contro N, Larson J, Scofield S, Sourkes B, Cohen H. Family perspectives on the quality of pediatric palliative care. *Arch Pediatr Adolesc Med* 2002;156(1):14-9. DOI: 10.1001/archpedi.156.1.14.
4. Zimmermann K, Marfurt-Russenberger K, Cignacco E, Bergstraesser E. Bereaved parents' perspectives on their child's end-of-life care: connecting a self-report questionnaire and interview data from the nationwide Paediatric End-of-Life CARE Needs in Switzerland (PELICAN) study. *BMC Palliat Care* 2022;21(1):66. DOI: 10.1186/s12904-022-00957-w.
5. Niehaus JZ, Palmer M, LaPradd M, et al. Pediatric Resident Perception and Participation in End-of-Life Care. *Am J Hosp Palliat Care* 2020;37(11):936-942. DOI: 10.1177/1049909120913041.
6. Kolarik RC, Walker G, Arnold RM. Pediatric resident education in palliative care: a needs assessment. *Pediatrics* 2006;117(6):1949-54. DOI: 10.1542/peds.2005-1111.

7. Trowbridge A, Bamat T, Griffis H, McConathey E, Feudtner C, Walter JK. Pediatric Resident Experience Caring for Children at the End of Life in a Children's Hospital. *Acad Pediatr* 2020;20(1):81-88. DOI: 10.1016/j.acap.2019.07.008.
8. Khaneja S, Milrod B. Educational needs among pediatricians regarding caring for terminally ill children. *Arch Pediatr Adolesc Med* 1998;152(9):909-14. DOI: 10.1001/archpedi.152.9.909.
9. Baker JN, Torkildson C, Baillargeon JG, Olney CA, Kane JR. National survey of pediatric residency program directors and residents regarding education in palliative medicine and end-of-life care. *J Palliat Med* 2007;10(2):420-9. DOI: 10.1089/jpm.2006.0135.
10. McCabe ME, Hunt EA, Serwint JR. Pediatric residents' clinical and educational experiences with end-of-life care. *Pediatrics* 2008;121(4):e731-7. DOI: 10.1542/peds.2007-1657.
11. Wu KL, Friderici J, Goff SL. The impact of a palliative care team on residents' experiences and comfort levels with pediatric palliative care. *J Palliat Med* 2014;17(1):80-4. DOI: 10.1089/jpm.2013.0227.
12. Kozhevnikov D, Morrison LJ, Ellman MS. Simulation training in palliative care: state of the art and future directions. *Adv Med Educ Pract* 2018;9:915-924. DOI: 10.2147/AMEP.S153630.
13. Baughcum AE, Gerhardt CA, Young-Saleme T, Stefanik R, Klopfenstein KJ. Evaluation of a pediatric palliative care educational workshop for oncology fellows. *Pediatr Blood Cancer* 2007;49(2):154-9. DOI: 10.1002/pbc.21034.
14. Gerhardt CA, Grollman JA, Baughcum AE, Young-Saleme T, Stefanik R, Klopfenstein KJ. Longitudinal evaluation of a pediatric palliative care educational workshop for oncology fellows. *J Palliat Med* 2009;12(4):323-8. DOI: 10.1089/jpm.2008.0285.