

EDUCATION

Cutting edge hackathon competition winners strive to better support more surgeons with primary childcare responsibilities

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In November of 2022 the cutting-edge hackathon took place and brought together a group of medical students and residents from all different levels of training to talk about innovation in surgery with a focus on women in surgery. A Hackathon is traditionally a competitive event where groups work with software or hardware platforms to achieve an outcome, create a functioning product or solve a problem by the end of the allotted time. This hackathon presented a social question: How can we better support womxn in surgery. The competition involved five teams of Dalhousie medical students all with an interest in entering surgery. Using problem solving techniques drawn from their backgrounds in engineering, clinical medicine, and research, they leveraged their diverse training to collaborate on solutions to barriers faced on the road to the operating room. Fifteen participants entered the challenge and were assigned a team at random by the organizing committee. The competition winners comprised a team of medical students from first year to fourth year who chose to focus on tackling barriers for primary childcare providers in surgery.

In Canada, women account for just 30.3% of all surgeons across the country¹. Given the widespread understanding that surgical training and practice is quite demanding, the team chose to investigate how they could better support this group. Speaking with practitioners at the event, they endorsed that a significant portion of their stress could be accounted for by worries of childcare as currently, there are no in-hospital childcare supports for healthcare workers in Nova Scotia or New Brunswick. Parents seeking childcare have the option to seek care from licensed childcare providers or family/friends. However, with the ongoing shortage of licensed childcare available and variable schedules, healthcare workers are not fully supported.

A peer-reviewed survey of 347 American surgeons investigated issues for women who had children during surgical residency or as staff and reported the following:

- Inability to breast feed for the length of time they desired due to a lack of facility/ childcare that supported this²
- The variable nature of parental leave based on location and local policy^{2,3}
- Need for childcare, particularly emergency childcare^{2,3}
- Considered leaving residency and would discourage female medical students from pursuing surgery because of the struggles of balancing motherhood and residency²

The idea of support for childcare facilities that are near or within hospitals is an idea that has been around for decades. It has been supported in American Medical Association policy, and there is great interest in this concept^{4,5}. However, still a very small number of hospitals offer these kinds of programs currently in Canada⁶. There is a lack of supportive studies on the topic of childcare for healthcare providers which would serve to motivate development of initiatives that could impart benefit. Investigations may additionally highlight the impact of the stress that is associated with insufficient childcare support, particularly so in Canada.

With significant renovations underway at the Queen Elizabeth II Health Sciences Centre in Halifax, the group thought the addition of a childcare facility would support Halifax-based surgeons, surgeons in training and other healthcare providers. The group designed a plan for 24/7 childcare, available to any surgeon at any stage of training. The pilot would initially open to surgeons, but the initiative would be designed to scale to all hospital staff if successful and the capacity was available. This service would not be out of taxpayers' pocket, but paid for by the users, like any other childcare service. However, given the potential to become an incentive unique to Nova Scotia, there could be a possible partnership with Physician Recruitment & Retention in the province to cover part of these costs. In recruitment and retention at two Georgia-based

hospitals, they found that their on-site childcare is a hugely incentivizing feature for employees⁷. The possible associated outcomes could be reduced commuting time and more dependable OR times if staff do not have to be so cognizant of pick-up and drop-off times of an external daycare.

The team accounted for the limitations of physical space in the hospital, planning so that this program would not take away from patient care. They also acknowledged that logistical planning on a strapped healthcare industry would need a dedicated team of stakeholders with the vision to support this initiative.

In summary, the addition of childcare in the hospital addresses human resource issues, recruitment and retention, and disadvantages surgeon parents experience with childcare duties. This program development is a call to action for those with systems planning and decision-making power, as well as each of us in the medical system to continue working to bring this program to fruition to tackle barriers to the practice of surgery.

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