Health Advocacy Competency: Integrating Social Outreach into Surgical Education

Yvonne Ying, MD, MEd, FRCSC,*,† and Christine Seabrook, MEd*

*Office of Surgical Education, Department of Surgery, University of Ottawa, Ottawa, Ontario, Canada; and †Department of Surgery, Children's Hospital of Eastern Ontario, Ottawa, Ontario, Canada

OBJECTIVE: Being a strong health advocate is recognized as being an important part of being a good surgeon. Residency training programs have struggled with teaching health advocacy beyond didactic sessions, and in a way that encourages trainees to incorporate changes into their practice. This curriculum development aimed to incorporate reflective practice to encourage patient compassion and advocacy.

DESIGN: Community service was incorporated as a mandatory component of a postgraduate surgical training program. Residents participated in a community service activity, and reflected upon their learning with a presentation to their peers.

PARTICIPANTS: Mandatory advocacy curriculum for all 67 first and second year surgical residents. Sixty-four residents chose to participate in a community service activity. Forty-six residents completed year end evaluations on the curriculum.

RESULTS: Seventy percent of outreach activities were medically related, and 30% nonmedical. Most residents felt that the amount of work required to complete this project was reasonable (90%), and learned from their experiences (76%). Residents who participated in medically related projects self-described greater learning from their activity (93%), and from watching their peer presentations (79%). These trainees were also more likely to alter their patient management based on their experiences (68%). Trainees who participated in nonmedically related outreach projects were less likely to self-reflect learning from their experiences. Despite mandatory teaching in health advocacy, trainees are often unaware of this teaching within their curriculum.

CONCLUSIONS: A mandatory outreach project in residency can encourage trainees to reflect on their volunteer activities as a physician and how it impacts their patient's health. Academic departments should try to encourage volunteerism within their trainees by providing opportunities for residents to participate in outreach activities related to their specialty. (J Surg Ed 76:756–761. © 2018 Association of Program Directors in Surgery. Published by Elsevier Inc. All rights reserved.)

KEY WORDS: Health advocacy, community service, postgraduate education, surgical education, social outreach

COMPETENCIES: Systems-Based Practice, Professionalism, Patient Care, Interpersonal and Communication Skills

INTRODUCTION

Being a surgeon requires more than medical knowledge and expertise. The CanMEDS Framework was brought into Canadian postgraduate medical training to improve patient care by ensuring a comprehensive medical education.[1] CanMEDs categorizes postgraduate medical education into 6 different roles/competencies a physician must display in order to be a good medical expert. These roles are: communicator, collaborator, scholar, manager, professional, and health advocate. Since their introduction, similar roles have been adopted by medical training organizations around the world, including the ACGME competencies.[2] Among the CanMEDS roles, the role of health advocate is often considered particularly challenging to define, teach, learn, and evaluate.[3-5] However, improving health advocacy education has the potential to not only improve patient care and public health, but to also increase physician professionalism and ethics.[6] It encourages clinicians to view patients with a system based approach, rather than solely within a clinical disease framework.

Funding: Dr. Yvonne Ying was supported by the Associated Medical Services Inc. through an AMS Phoenix Fellowship.

Correspondence: Inquiries to Yvonne Ying, MD, MEd, FRCSC, Department of Surgery, Children's Hospital of Eastern Ontario, 401 Smyth Road, Ottawa, Ontario, Canada K1H 8Ly; fax: 613-738-4840; e-mail: yying@cheo.on.ca

  1931-7204/$30.00
https://doi.org/10.1016/j.jsurg.2018.11.006

Many residency programs have attempted to incorporate health advocacy curricula into formal teaching. Some common methods include didactic modules focused on the social determinants of health, as well as advocacy-specific rotation.[7,8] These formats demonstrate increased knowledge, however each comes with its own challenges. Didactic lectures address the theoretical aspect of advocacy, but do not necessarily translate into clinical practice. Outreach and advocacy rotations allow trainees to see many social issues applied within their clinical setting, but may not be practical for all training programs due to location or subspecialty of training. Surgical specialties may be challenged to organize an outreach rotation due to clinical volumes and resource requirements. As such, surgeons may find additional challenges in incorporating health advocacy within their curriculum. A survey of surgeons in the Netherlands rated health advocacy as the least important CanMEDs role, but also the most difficult one to teach and assess.[4]

International rotations in low resource countries also offer a great opportunity to learn about health advocacy. [9] However, these rotations may not be accessible to all trainees, and the cultural and geographical distance setting may not translate to local practice.

Even when incorporated into curricula, advocacy rotations or lectures usually occur only once during a multiyear training program and covers a narrow definition of advocacy. Work based health advocacy is often also limited to those aspects that are most likely to be observed in a hospital or clinical setting – advocating for the patient who presents for clinical care.

However, health advocacy extends beyond the hospital setting, and must include responding to needs of the community and population. Interacting with patients outside of the clinical environment provides the opportunity to see patients in a setting where they are people, with less of the power differential that exists within the clinical setting. Providing opportunities to foster health advocacy beyond a one-on-one clinical interaction is challenging to accomplish within the workplace.

Community service activities could provide a platform to learn about challenges many in society face. Minimum community service hours are common in high school curricula, and volunteering is universal in premed students. There is also recognition of the need to promote community service in undergraduate medical education. However, community outreach often decreases as individuals progresses through their medical training.[10] Volunteering during residency can allow trainees to view their activities through the lens of a physician, but at the same time provide an opportunity to see their patient as a person, with the many facets to their health issues beyond the disease process itself.

The goal of our curriculum was to teach health advocacy through an accessible curriculum initiative focused on reflective experiential learning. Ideally, this would be something feasible to continue throughout one's training, and that allowed for advocacy to be viewed from several different perspectives.

METHODS

We implemented a mandatory community outreach initiative as part of the Surgical Foundations (SF) program at the University of Ottawa. SF is a mandatory 2 year curriculum for all junior surgical trainees (residents) in Canada. SF runs in tandem with a trainee's surgical specialty training. These specialties include cardiac surgery, general surgery, neurosurgery, obstetrics and gynecology, orthopedic surgery, otolaryngology, plastic surgery, urology, and vascular surgery.

All residents enrolled in SF were required to participate in an outreach activity during the academic year. The activity did not have to be formal or have supervision, and any volunteer activities that trainees were already participating in would be considered as meeting the requirements. The only restrictions placed were that the activity had to be unpaid, and had to take place outside of their work/school responsibilities. Specifically, activities such as teaching medical students or participating in hospital/university committees were excluded. Activities related to their surgical specialty were encouraged, but not required. The activity was expected to take less than 3 hours, and could be done in groups or individually.

Canadian surgical training does not have specific work-hour restrictions, but surgical resident work hours are instead is regulated by maximum number of shifts or on-call nights, and being excused from all clinical or academic responsibilities on postcall days. It is also required as part of surgical training in Canada that all trainees have at least 1 "academic half day" per week, usually a 3-hour session in the morning or afternoon. During their academic time, trainees are relieved from all clinical duties, and usually attend group teaching sessions. SF lectures and skills labs take place during these protected academic half-days. One protected academic half-day (3 hours) was dedicated to this activity by giving trainees this time off clinical duties without any SF lectures. These 3 hours off clinical work was in lieu of time they would be spending on their outreach activity outside of usual working hours. All of these requirements and accommodations were explained to the residents at the beginning of the academic year during orientation, along with a brief explanation of the goal of this activity fostering social outreach, and human advocacy.

At the end of the year, all trainees had to give a brief presentation individually or in groups to share their experiences. Students were marked on this component of the curriculum as either complete or incomplete. Residents also had the option to write a reflective paper on health advocacy as an alternative.

Annual year-end course evaluations included questions pertaining to this aspect of the curriculum. We analyzed questions related to the outreach curriculum from the year-end evaluations to retrospectively assess perceived impact and whether the objectives were met, using a Chi-square analysis to compare groups. Statistical analysis was performed using SPSS (IBM SPSS Statistics for Windows, Version 23.0 Armonk, NY: IBM Corp).

RESULTS

Sixty-seven surgical trainees were enrolled in the SF program for the 2014 to 2015 academic year. Sixty-four trainees completed an outreach activity while 3 chose to write a reflective paper. Upon review of the year-end presentations, 59% of activities were specialty related, 11% were other medically related, and 30% nonmedical in nature, as categorized by the authors. Specialty related projects included a plastic surgery trainee volunteering at a breast reconstruction awareness event. Promotion of helmet safety was considered specialty related for a neurosurgery trainee, but would be medically related for a cardiac surgery trainee. Nonmedical projects ranged from organizing a food drive for local shelters to shoveling a neighborhood's community rink. A list of all the different activities can be found in Table 1. Some activities were conducted in groups, while other activities were similar and grouped together in the table.

Forty-six course evaluations were completed with an even distribution between first and second year residents (24 vs 22). Evaluations were anonymous, and did not ask for surgical specialty. All questions (except where indicated in Table 2) were rated on a 4-point likert scale (Agree, Somewhat Agree, Somewhat Disagree, and Disagree). Results were dicotimized into Yes (any marking from Agree to Somewhat Agree) and No (from Disagree to Somewhat Disagree). Responses marked between Somewhat Agree and Somewhat Disagree were discarded along with skipped questions. Evaluations completed by trainees who wrote the reflective essay were also excluded from the analysis.

Results are listed in Table 2, with percentages reflecting overall agreement with each statement. The results were then subdivided based on trainees who self-described their project as medically related (Med Trainees 70%) or nonmedically related (NonMed Trainees 30%). The listed p values were based on a comparison of these 2 groups.

Time Investment

Despite initial concerns over the challenges of finding and completing outreach activities, most trainees found that projects were easy to find (79%), and that the work required was reasonable (80%). There was a significant difference between the Med Trainee and NonMed Trainee groups. The absolute amount of time spent on this project was not asked. Based on our review of the presentations, we do not believe that NonMed Trainees spent more time on their activity. However, Med Trainees were significantly more likely to consider the amount of work required for this activity "reasonable" (90% vs 55%; $p = 0.01$). Based on the presentations, actual time spent by Med Trainees actually seemed to be

TABLE 1. Categorized Outreach Activities

Medical	Nonmedical

• Information booth/talk at events
  • Cancer fundraiser
  • Helmet safety
  • Breast cancer reconstruction
  • Smoking cessation
• Health information sessions
  • Women's shelter
  • Immigrant services
  • Cardiac health for dentists
• Screening clinics
  • Outreach pap smear
  • Head and neck cancer (homeless shelter)
  • Hearing tests
• Joined cancer advisory board
• High school healthy lifestyle event
	• Meals-on-wheels delivery
	• Distribution of food to homeless
	• Collecting donations for teen pregnancy home
	• Preparing meals for an ill neighbor
	• Shoveling community skating rink
	• Community center support group
	• Gift baskets for teen moms
	• School career day
	• Student bone health information
	• Men's shelter volunteer

TABLE 2. Results from End-of-Year Surgical Foundations Course Evaluation on Items Related to a Community Outreach Curriculum Initiative

	Overall Yes % (Total n)	Medically Related Projects Yes % (Total n)	Nonmedically Related Projects Yes % (Total n)	p
My project was medically related.	70% (43)			
I found it easy to find a project to fulfill this assignment.	79% (42)	83% (29)	69% (13)	0.32
The amount of work involved to complete this assignment was reasonable.	80% (40)	90% (29)	55% (11)	0.01
I learned something in the process of doing this outreach activity.	76% (42)	93% (29)	38% (13)	<0.001
I learned something from watching the presentations.	63% (41)	79% (28)	31% (13)	0.003
I have a better understanding of what it means to be a health advocate.	46% (41)	61% (28)	15% (13)	0.007
I am more aware of advocacy/outreach initiatives.	72% (31)	80% (30)	54% (13)	0.08
This project helped me (further) develop my understanding of the importance of health advocacy.	48% (40)	59% (27)	23% (13)	0.03
I would be interested in participating in some of these other projects in the future.	59% (41)	68% (28)	38% (13)	0.08
This contributed to my identity development as a surgeon.	35% (40)	43% (28)	17% (12)	0.11
Doing this project will affect how I view/manage some of my patients.	50% (40)	68% (28)	8% (12)	0.001
I specifically looked for/found this activity because of this assignment.	60% (40)	67% (27)	46% (13)	0.22
This project was part of my surgical specialty training program.	33% (42)	48% (29)	0% (13)	0.002
I hope to continue to engage in activities related to my project in the future.	66% (41)	86% (28)	23% (13)	<0.001
Did you have teaching on health advocacy in other parts of your residency training this academic year? (Yes or No)	36% (39)	43% (28)	18% (11)	0.15
Do you think it is important to teach/learn about health advocacy? (Yes or No)	73% (30)	86% (21)	44% (9)	0.02

higher due to fixed time commitments for some of the medically related activities.

Sixty percent of trainees sought out their activity for the purpose of fulfilling this course requirement, but 33% stated that this was part of their specialty training program. None of these activities were a mandatory part of a surgical training program. Instead, a number of activities were initiated by the surgical division, and made available for trainees to participate. These activities had staff surgeons involved, and included activities such as cancer screening for marginalized populations, or patient information sessions.

Self-reflective Learning

Med Trainees perceived more learning from their participation (93% vs 38%; $p < 0.001$), and we believe that they were therefore more likely to consider this a worthwhile time investment. Med Trainees were also more likely to believe that learning about health advocacy was important (86% vs 44%; $p = 0.02$), and that participation in this activity affected how they would manage some of their patients (68% vs 8%; $p = 0.001$), which could also account for the difference in their perceived effort. As this initiative was assessed by retrospective analysis of course evaluations, it is not possible to discern whether this different belief in the importance of health advocacy was present prior to this project, but Med Trainees were also more likely to have gained a better understanding of the importance of advocacy through their project (59% vs 23%; $p = 0.03$). It is possible that those who have a stronger belief in the importance of health advocacy made a greater effort to find a medically related project and tried to learn from it.

Peer Learning

Peer presentations of the outreach projects were meant to encourage reflection on the activities and allow for peer learning. All trainees watched the same presentations, but Med Trainees self-described that they learned more from watching the presentations (79% vs 31%; $p = 0.003$). Again, it is unclear if this is due to self-selection based on pre-existing interest in advocacy, or a gain in understanding of advocacy through their activities that allowed them to gain more from all shared

experiences. From watching the presentations, there was no difference between the 2 groups in awareness of outreach initiatives in the community (72%) and interest in participating in some of the other projects in the future (59%). However, Med Trainees are more likely to engage in their own activity in the future (86% vs 23%; $p < 0.001$).

Health Advocacy Teaching

The lack of awareness of health advocacy teaching outside of the SF curriculum by majority (63%) of trainees was concerning as the health advocacy role is considered a key part of postgraduate training in Canada.[1] All training programs must demonstrate teaching health advocacy as part of their accreditation, and likely have aspects of health advocacy within their curriculum. This survey response did not necessarily mean that there was no teaching of health advocacy in the specialty curriculum that year, but that any advocacy teaching in the curriculum did not make an impact on the trainees.

Introduction of this component of the program was initially controversial. The residency program committee for SF consists of program directors from all the surgical specialties, as well as resident representatives. Some program directors were supportive, while others felt that residents already volunteered sufficiently. Some members were concerned that trainees did not have time to find such projects. There were 3 main arguments supporting the program. The first was the broad range of activities acceptable to fulfill the requirement. For those who felt that trainees already did volunteering, it was emphasized that additional work would not be required since any form of volunteering outside of the work environment would be acceptable. Secondly, it was agreed upon that trainees had the option of writing a self-reflective paper on health advocacy as an alternative if they were unable or unwilling to find an outreach activity. The idea was that the essay would still allow for reflection, even without the experiential component. Finally, teaching of health advocacy is a mandatory component for accreditation of any SF program in Canada, and those who opposed this new aspect of the curriculum were asked to suggest alternative academic activities that could fulfill this requirement better. With the lack of suggestions of better ways to teach health advocacy within the same time frame, inclusion of outreach activities was approved to be part of the curriculum. Since its initial introduction, the program has increasingly received support and has become a regular part of the curriculum. The SF program has also undergone its national accreditation review which found this part of the curriculum to be an innovative way to teach health advocacy.

The controversy when this outreach curriculum was first introduced led to much discussion around "mandatory volunteering" for adult learners. This controversy perhaps provided benefit in itself, with increased discussions and awareness to the health advocacy component of our SF curriculum. It certainly made it clear to every trainee that health advocacy was a component of the SF curriculum.

CONCLUSIONS

This innovative outreach curriculum aimed to teach about health advocacy to postgraduate trainees through experiential learning. The long term goal is for this initiative to have a lasting impact and a culture shift on the perception of social outreach. Though only first and second year trainees participate in SF, some trainees can hope continue their involvement throughout their training, and appreciate that outreach and health advocacy initiatives are just as important as the other physician competencies. Despite the additional time demands placed on already busy trainee schedules, most trainees felt that the demands of this curriculum were not unreasonable, and learned from their experience.

Trainees who participated in medically related projects were much more likely to reflect positively on their experiences, and report possible changes to their patient care in the future. As such, the recommendation to have specialty related volunteer activities should be further encouraged. However, making this mandatory can be challenging and stressful for trainees who are unable to find a related activity, and downplays the broader benefits of community service and how they affect health outcomes. There also appears to be a lack of health advocacy activities in some specialties. Our recommendation is therefore to not change the curriculum requirement, but to encourage departments to develop opportunities for trainees to participate in activities within their departments and related to their specialty. Providing volunteer opportunities can encourage residents to participate, even if not mandatory.[10] However, by continuing to make the participation and presentation of a volunteer activity mandatory, the trainees are forced to reflect upon their learning experiences, and recognize how these community service acts can be viewed from a lens of health advocacy.

ACKNOWLEDGMENTS

The authors would like to thank the AMS Foundation for the support of our surgical outreach and health advocacy initiatives, and Ms Laura Gerridzen for the implementation of our many initiatives in the Surgical Foundations curricula.

REFERENCES

1. Frank J, Jabbour M, Tugwell P, et al. Skills for the new millennium: report of the societal needs working group, CanMEDS 2000 project. *Ann R Coll Physicians Surg Can*. 1996;29:206–216.
2. Ringsted C, Hansen TL, Davis D, Scherpbier A. Are some of the challenging aspects of the CanMEDS roles valid outside Canada? *Med Educ*. 2006;40: 807–815.
3. Verma S, Flynn L, Seguin R. Faculty's and resident's perceptions of teaching and evaluating the role of health advocate: a study at one Canadian university. *Acad Med*. 2005;80:103–108.
4. Hopmans C, Hoed Pd, Wallenburg I, et al. Surgeon's attitude toward a competency-based training and assessment program: results of a multicenter survey. *J Surg Educ*. 2013;70:647–654.
5. Stutsky B, Singer M, Renaud R. Determining the weighting and relative improtance of CanMEDS roles and competencies. *BMC Res Notes*. 2012;5: 354.
6. Croft D, Jay SJ, Meslin EM, et al. Perspective: is it time for advocacy training in medical education? *Acad Med*. 2012;87:1165–1170.
7. Stafford S, Sedlak T, Fok MC, Wong RY. Evaluation of resident attitudes and self-reported competencies in health advocacy. *BMC Med Educ*. 2010;10:82.
8. Martin D, Hum S, Han M, Whitehead C. Laying the foundation: teaching policy and advocacy to medical trainees. *Med Teacher*. 2013;35:352–358.
9. White CP, Lecours C, Bortoluzzi P, et al. International plastic surgery missions: a framework for resident education using the CanMEDS competencies. *Ann Plast Surg*. 2013;71:324–327.
10. Sheridan MEB, Blue AV, Basco WT. Promoting student's community service during medical school: the MUSC gives back office. *Teach Learn Med*. 2010;22:214–218.