

Implementing experiential learning logs addressing social accountability into undergraduate medical clerkship education

Introduction de carnets d'apprentissage expérientiel portant sur la responsabilité sociale à l'externat au doctorat de premier cycle en médecine

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Implication Statement

Medical schools have a responsibility to ensure students meet and advocate for the needs of the community. However, addressing the social determinants of health is not always emphasized in clinical learning objectives. Learning logs are useful tools that can engage students to reflect on clinical encounters and direct students in their learning to target the development of highlighted skills. Despite their efficacy, the use of learning logs in medical education is largely applied towards biomedical knowledge and procedural skills. Thus, students may lack competence to address the psychosocial challenges involved in comprehensive medical care. Social accountability experiential logs were developed for third year medical students at the University of Ottawa to address and intervene on the social determinants of health. Students completed quality improvement surveys and results demonstrated this initiative to be beneficial to their learning and contributed to greater clinical confidence. Experiential logs in clinical training can be adapted across other medical schools and tailored to fit the needs and priorities of each institution's local communities.

Énoncé des implications de la recherche

Les facultés de médecine ont la responsabilité de s'assurer que les étudiants répondent aux besoins de la collectivité et militent pour leurs intérêts. Or, les objectifs d'apprentissage clinique ne sont pas toujours axés sur les déterminants sociaux de la santé. L'utilité des carnets d'apprentissage est d'inciter les étudiants à réfléchir sur les rencontres cliniques et de les orienter dans leur apprentissage vers le développement des compétences ciblées. Malgré leur efficacité, les carnets d'apprentissage sont surtout appliqués aux connaissances biomédicales et aux compétences procédurales. Par conséquent, les étudiants pourraient ne pas disposer des compétences nécessaires pour relever les enjeux psychosociaux, qui sont à considérer aux fins d'une prise en charge médicale globale. Des carnets d'apprentissage expérientiel portant sur la responsabilité sociale ont été élaborés pour les étudiants en médecine de troisième année de l'Université d'Ottawa afin d'aborder et d'intervenir sur les déterminants sociaux de la santé. Les étudiants ont participé à des sondages sur l'amélioration de la qualité et les résultats de ceux-ci ont montré que cette initiative était bénéfique pour leur apprentissage et qu'elle contribuait à améliorer leur confiance en eux en tant que cliniciens. Les carnets expérientiels en formation clinique peuvent être adaptés par les diverses facultés de médecine pour qu'ils correspondent aux besoins et aux priorités des collectivités locales qu'elles desservent.

Introduction

According to Health Canada, medical schools must "respond to the changing needs of the community by developing formal mechanisms to maintain awareness of these needs and advocate for them to be met."¹ These needs include the social determinants of health (SDOH),

which together are the root cause of roughly 50% of all medical illnesses.² For learners to champion the SDOH, medical education needs to enforce experiential learning objectives in the realm of social accountability (SA).³

Learning logs are valuable tools that can promote self-reflection following experiential learning encounters during clinical training. They encourage continuous

interactions between students and preceptors and provide opportunities for medical students to obtain feedback.⁴ The use of logs is also beneficial for students to focus on learning objectives and thus they have great potential to subsequently guide tailored learning plans.^{5,6}

At the University of Ottawa, documenting patient encounters and procedural logs are mandatory components of the clerkship curriculum. However, formal logs to address SA and SDOH were not an established mandate. Based on our environmental scan of SA curricula across Canadian medical schools, the use of learning logs in medical education largely emphasizes biomedical knowledge and procedural skills. We found no evidence of existing logs centred on the psychosocial components of patient care. As such, students may lack competence to intervene on SDOH and serve diverse patient populations. There have been increasing calls to increase the emphasis on advocacy skills and cultural competency among medical students to match that of biomedical knowledge and procedural techniques.⁷

Innovation

The University of Ottawa's Social Accountability Student Advisory Committee, with the support from faculty and community members, developed a set of 10 experiential logs aimed to address SA and SDOH (Table 1). These logs were informed by the clinical experiences of senior clerkship students and community priorities, as identified by physicians with expertise in SA. These logs were intended to be completed by third-year clerkship medical students during their clinical training at the University of Ottawa. Clinical training encompasses any patient encounter throughout eight core rotations, which can take place in any of the affiliated academic hospitals, community hospitals and rural clinics. During the pilot project year of 2020-2021, completion of logs was not mandated, but voluntary participation was documented on One45, a medical education learning platform.

A handbook encompassing community and online resources was developed and distributed in English and French, to support students in completing these logs. Through frequent reminders via email and social media, students were encouraged by faculty and project leads to complete at least one SA experiential log per each of their

eight core rotations. There was no set limit to how many logs students could complete. As such, students were able to document as many logs required to reflect their clinical experiences.

Table 1. List of experiential logs developed and aimed to address social accountability and the social determinants of health

| Descriptions of experiential logs |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Counsel an elderly patient and/or their family about falls prevention initiatives. |
| Counsel a patient on community resources for weight loss. |
| Identify a patient who experiences addiction and their stage of change and recommend appropriate resources for this stage. |
| Counsel a pediatric patient on safe sexual health. |
| Discuss free or low-cost mental health supports with a patient. |
| Provide counselling and resources to a patient for smoking cessation. |
| Counsel a patient on available community prenatal education classes. |
| Counsel a newcomer or refugee patient on navigating the healthcare and social system. |
| Screen a patient for financial insecurity and suggest appropriate financial aid resources using the Poverty Screening Tool. |
| Initiate an active offer of available services (interpretation or discharge services) for a Francophone or non-English-speaking patient in their preferred language. |

On completion of each SA experiential logs, students were invited to participate in an anonymous and voluntary online questionnaire to evaluate its effects on students' ability to address SA. Within this questionnaire, students' subjective increase in confidence to address the topic of each SA log was measured using a Likert scale (1=not at all; 5=quite a lot). This project was exempt from ethics review by the Ottawa Health Science Network Research Ethics Board.

Evaluation

A total of 164 students were eligible to participate and 58 survey responses were received (Table 2). Survey responses were distributed unevenly amongst the 10 established SA experiential logs. This varied from 3.4% of responses addressing prenatal care and financial screening, each, to 19% of responses addressing language barriers. The mean increase in confidence to address the topic of each SA log, on the Likert scale was 3.74 (SD = 0.78). The majority of respondents felt the logs improved competence in addressing the SDOH ($n = 55$, 94.8%) and that additional relevant learning opportunities should be made available ($n = 56$, 96.6%).

Table 2. Pilot year evaluation results

| Descriptors | n (%) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <i>What stream are you in?</i> | |
| Anglophone | 43 (74.1) |
| Francophone | 15 (25.9) |
| <i>Please select the Log completed:</i> | |
| Counsel an elderly patient and/or their family about falls prevention initiatives. | 7 (12.1) |
| Counsel a patient on community resources for weight loss. | 5 (8.6) |
| Identify a patient who experiences addiction and their stage of change and recommend appropriate resources for this stage. | 9 (15.5) |
| Counsel a pediatric patient on safe sexual health. | 3 (5.2) |
| Discuss free or low-cost mental health supports with a patient. | 6 (10.3) |
| Provide counselling and resources to a patient for smoking cessation. | 9 (15.5) |
| Counsel a patient on available community prenatal education classes. | 2 (3.4) |
| Counsel a newcomer or refugee patient on navigating the healthcare and social system. | 4 (6.9) |
| Screen a patient for financial insecurity and suggest appropriate financial aid resources using the Poverty Screening Tool. | 2 (3.4) |
| Initiate an active offer of available services (interpretation or discharge services) for a Francophone or non-English-speaking patient in their preferred language. | 11 (19) |
| <i>In what setting did you complete this Log?</i> | |
| Rural location | 21 (36.2) |
| Hospital in Ottawa | 35 (60.3) |
| Community clinic in Ottawa | 2 (3.4) |
| <i>What specialty or rotation did you complete this Log?</i> | |
| Mandatory Selectives (which includes ENT and any of the following: dermatology, palliative care, pediatric surgery, pediatric medicine subspecialties, ophthalmology, radiology, radiation oncology, pathology) | 0 (0) |
| Pediatrics | 7 (12.1) |
| Surgery | 1 (1.7) |
| Obstetrics and Gynecology | 5 (8.6) |
| Family Medicine | 24 (41.4) |
| Psychiatry | 9 (15.5) |
| Internal Medicine | 7 (12.1) |
| Acute Care Medicine (Emergency Medicine and Anesthesia) | 5 (8.6) |
| <i>How much did your confidence to address this topic with a patient increase after completion?</i> | |
| 1 (not at all) | 0 (0) |
| 2 | 4 (6.9) |
| 3 | 15 (25.9) |
| 4 | 31 (53.4) |
| 5 (quite a lot) | 8 (13.8) |
| <i>Do you feel this Log met the objective to improve competence in addressing the social determinants of health experienced by your patient?</i> | |
| Yes | 55 (94.8) |
| No | 3 (5.2) |
| <i>Do you think there should be more opportunities for learning in this area?</i> | |
| Yes | 56 (96.6) |
| No | 2 (3.4) |

Next steps

In encouraging medical students to develop socially accountable clinical practices, the SA experiential logs aim to train physicians to competently serve a diverse population. This novel initiative cultivates learning through an iterative process of applying knowledge of the SDOH to practical skills. The results from the pilot year of implementing SA experiential logs into the clerkship curriculum were favorable and suggest this initiative was beneficial for students' learning. Given the positive outcomes of the pilot study, this may inspire other medical schools to model similar initiatives. The SA experiential logs developed as part of this pilot study are specifically focused to meet and advocate for the needs of the populations served at the University of Ottawa. However, SA

experiential logs can be adapted for implementation across other medical schools where they can be tailored to fit the priorities of local communities.

Despite the overall positive results of the pilot study, our findings may be limited by response bias, as respondents may have had pre-existing awareness of, interest or experiences in SA. Survey responses were not able to discern the number of students who participated in the pilot project. It would be important to consider barriers to participation in this initiative, including insufficient resources provided to students, lack of clinical opportunities, lack of preceptor engagement, expertise, or mentorship in intervening on the SDOH, and inconvenient or strenuous log documentation process.

Furthermore, in order for students to fully benefit from the SA experiential logs, additional efforts are required to promote student reflections. This would enable students to transfer knowledge from specific patient encounters to champion community- and system-level changes. It will also help solidify students' understanding of the SDOH, which can be applied to future clinical encounters. These reflections can take the form of written entries or verbal discussions with experienced preceptors or community members. This would require training for and commitment from clinical preceptors to ensure students have opportunities to engage in meaningful discussions surrounding advocacy and healthy equity.

Our next steps include liaising with faculty members to determine the feasibility of incorporating these logs into the curriculum and expanding student engagement with these logs. Community partners will be engaged to ensure that the logs are continuously modified to meet community priorities.

The novelty of this initiative responds to the growing need for medical education to tailor training to the priority health concerns of communities. In providing medical learners with a convenient platform to direct learning goals surrounding SDOH and document subsequent experiences, we reinforce the significance of centering SA in patient care.

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References

1. Health Canada 2001. *Social accountability: a vision for Canadian medical schools*. Ottawa: Health Canada. Category No.: H39-602/2002. https://afmc.ca/future-of-medical-education-in-canada/medical-doctor-project/pdf/sa_vision_canadian_medical_schools_en.pdf.
2. Compton MT, Shim RS. The social determinants of mental health. *Focus*. 2015;13(4): 419-425. <https://doi.org/10.1176/appi.focus.20150017>
3. Hubinette M, Dobson S, Scott I, Sherbino J. Health advocacy. *Med Teach*. 2017;39(2):128-135. <https://doi.org/10.1080/0142159X.2017.1245853>
4. Patil NG, Lee, P. Interactive logbooks for medical students: are they useful? *Med Ed*. 2002;36:672-677. <https://doi.org/10.1046/j.1365-2923.2002.01163.x>
5. Schuttelpelz-Brauns K, Marciss E, Schneyinck C, et al. Twelve tips for successfully implementing logbooks in clinical training. *Med Teach*. 2016;38:564-569. <https://doi.org/10.3109/0142159X.2015.1132830>
6. Blake K. The daily grind – use of log books and portfolios for documenting undergraduate activities. *Med Ed*. 2001;35:1097-1098. <https://doi.org/10.1046/j.1365-2923.2001.01085.x>
7. Luft LM. The essential role of physician as advocate: how and why we pass it on. *Can Med Educ J*. 2017;8(3):e109-e116. <https://doi.org/10.36834/cmej.36925>