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**Research Article** 

# Teaching the Teacher: The Impact of a Workshop Developed for Radiation Therapists

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## ABSTRACT

**Introduction:** Enhancing the teaching skills of radiation therapists is of benefit to both students and therapists and is ultimately important for patient outcomes. However, there is a paucity of evidence-based interventions for improving the teaching skills of radiation therapists. An intervention was developed to tackle this initiative. In accordance with a local, quality improvement initiative, a two-part workshop was developed for radiation therapists to improve their ability to (1) effectively communicate with students, (2) provide meaningful feedback to students, (3) increase consistency in conducting competency assessments, and (4) increase an understanding of cultural competency as it pertains to both teaching and health care more broadly.

Methods: Participants included 67 radiation therapists (18 males and 49 females) currently working at an urban, tertiary care center in Ontario. Not all therapists attended both the workshops (48 attended both workshops, 67 attended A only, and 49 attended B only). The sessions were divided into workshop A, targeting communication and evaluation, and workshop B, targeting competency assessment and cultural competency. Self-report questionnaires assessing clinician ratings of their confidence in these skills were administered before workshop A and B, after workshop A and B, and at a follow-up after 75 days. For radiation therapists who completed the questionnaire at all three time points, changes in their confidence ratings were analyzed using repeated measures analysis of variance (ANOVA) before workshop, after workshop, and at followup (for workshop A: n = 29 and for workshop B: n = 24). It was hypothesized that teaching skills of communication and evaluation would improve after workshop A. Similarly, teaching skills of competency assessment and cultural competency would both improve after workshop B.

**Results:** All four repeated measures ANOVAs indicated significant improvements in clinician self-assessment in the four teaching skills

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targeted in the workshops.

**Discussion:** Radiation therapists reported being significantly more confident in their teaching skills after the intervention.

**Conclusion:** There is preliminary evidence for the efficacy of this teaching intervention in improving the confidence of radiation therapists in the assessed skills.

#### RÉSUMÉ

**Introduction :** L'amélioration des compétences d'enseignement des radiothérapeutes est bénéfique à la fois pour les étudiants et pour les thérapeutes, et est importante pour les résultats des patients. Cependant, il y a très peu d'interventions fondées sur des données probantes pour améliorer les compétences d'enseignement des radiothérapeutes. Une intervention a été développée pour mener à bien cette initiative. Conformément à une initiative locale d'amélioration de la qualité, un atelier a été mis sur pied pour permettre aux radiothérapeutes d'améliorer leur aptitude à 1) communiquer efficacement avec les étudiants, 2) fournir une rétroaction signifiante aux étudiants, 3) augmenter l'uniformité dans la conduite des évaluation des compétences, et 4) augmenter la compréhension de la compétence culturelle à l'égard de l'enseignement et, plus largement, des soins de santé.

Méthodologie : Les participants comprenaient 67 radiothérapeutes (18 hommes et 49 femmes) qui travaillent actuellement dans un centre de soins tertiaires en milieu urbain en Ontario. Tous les thérapeutes n'ont pas assisté aux deux ateliers (48 ont assisté aux deux ateliers; 67 ont assisté à l'atelier A seulement; 49 ont assisté à l'atelier B seulement). Les séances étaient divisées entre l'atelier A, portant sur la communication et l'évaluation, et l'atelier B, portant sur l'évaluation des compétences et la compétence culturelle. Des questionnaires autoadministrés évaluant la confiance des cliniciens dans ces compétences ont été distribués avant et après les ateliers A et B, avec un suivi après 75 jours. Pour les radiothérapeutes qui ont rempli le questionnaire aux trois points de contrôle, le changement dans le niveau de confiance a été analysé à l'aide de mesures ANOVA pour les trois questionnaires (Atelier A: n = 29, Atelier B: n = 24). L'hypothèse de départ était que les compétences d'enseignement en communication et leur évaluation seraient améliorées après l'atelier A, et que les compétences

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d'enseignement et la compétence culturelle seraient améliorées après l'atelier B.

**Résultats :** Les quatre mesures ANOVA répétées indiquent une amélioration significative dans l'autoévaluation des cliniciens dans les quatre compétences ciblées dans les ateliers.

**Discussion :** Les radiothérapeutes mentionnent avoir une plus grande confiance en leurs compétences d'enseignement au terme de l'intervention.

**Conclusion :** Il existe des preuves préliminaires de l'efficacité des cette intervention d'enseignement pour l'amélioration de la confiance des radiothérapeutes face aux compétences évaluées.

Keywords: Radiation therapy; clinical teaching skills; competency assessment; cultural competency; communication; feedback

## Introduction

Radiation therapists assume the dual role of an active clinician and educator. In health care, the challenges of holding these two positions simultaneously are well understood [1,2]. Thus, teaching interventions to assist health care practitioners with the added demands of mentorship are needed. To date, extant research has focused predominately on teaching outcomes and interventions in other health care professions (eg, nursing [3,4]). The current initiative worked to address this limitation and directly assessed the efficacy of a teaching intervention for radiation therapists using therapist self-assessment. Teaching interventions present a myriad of logistical challenges, including the cost associated with professional development and organizing human resources to enable attendance for training. Thus, developing a lost-cost and logistically feasible intervention comprised a secondary goal of this initiative. A systematic review of interventions to improve teaching in medical education concluded that staff development through workshops was valued by staff and typically resulted in increased knowledge and changes to teaching practices [5]. At an urban, tertiary care center in Ontario, a brief workshop was created to improve radiation therapists' confidence in their clinical teaching skills identified in accordance with this local initiative. These foundation skills included the ability to effectively communicate and provide meaningful feedback to students, conduct competency assessment, and developing an awareness of teaching with cultural competency [6,7]. Teaching interventions with empirical evidence are needed to improve both therapist and student outcomes in the field of radiation therapy.

#### Clinical Teaching Skills

Communication skills have long been recognized as necessary for working in the health care environment [8,9]. Communicating clearly and providing meaningful feedback enable the learning and development of students [10,11]. However, training in effective communication is rarely offered to health care practitioners within oncology, despite the existence of evidence for the effectiveness of communication interventions [12]. For example, Fallowfield et al [12] demonstrated that a communication intervention for oncologists resulted in increased confidence in communication skills with patients, in addition to a willingness to share these skills with less experienced staff. Feedback is valued by both clinical educators and students in the health care profession [13]. There is a large body of literature evidencing the benefits of feedback on student outcomes, including improvements in clinical work in nursing [14,15]. However, to provide feedback that is indeed meaningful and helpful to students is a difficult task [2,16–18]. Various guidelines and initiatives to improve feedback in the medical field have been proposed [18,19]. Fortunately, short interventions targeting feedback in health care professions have resulted in improvements [5]. Indeed, both communication and feedback skills are important to student outcomes and are amenable to intervention; however, research specific to radiation therapists is needed.

The ability of a clinician to evaluate students and assess competency is paramount to student outcomes in a health care setting [4]. Consistency in competency assessments conducted by radiation therapists is important, as establishing competencies is necessary for radiation therapy students to graduate [20]. However, the criteria with which student competency is assessed are complex and vary within disciplines and institutions [21]. This is consistent with research in nursing in which students also highlighted professional competence and evaluation as important characteristics of their clinical teachers [3,22]. Furthermore, the local initiative as pertaining to the present study identified a need to improve the consistency and use of standardized competency assessment of students as completed by radiation therapists. Indeed, these skills are important for student outcomes and should be investigated in the context of radiation therapy.

Cultural competency can be defined as a set of knowledge, attitudes, and skills that allow individuals to effectively work in diverse settings effectively while appreciating crosscultural differences [23]. A recent call to action for including cultural awareness in the education of medical students was put forth to address this need for acting clinicians [24]. In an increasingly diverse population in Ontario, Canada [25], the provision of culturally competent care is crucial; thus, health care professionals need to be aware of their own cultural biases and their impact on one's evaluation of another. Thus, teaching interventions would benefit from discussions around cultural competency and the implications of culture in the context of health care.

Taken together, effective teaching skills in health care practitioners are highly relevant to student outcomes. As supported in the literature and in alignment with the local Download English Version:

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