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Promoting professional judgement through peer debate in radiation therapy undergraduate curriculum

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ABSTRACT

Radiation therapists (RTs) are often required to exercise professional judgement when faced with the ambiguity inherent in professional dilemmas not comprehensively accommodated by the professional Code of Conduct. Clinical educators therefore need to design curriculum that motivates students to apply professional judgement in ambiguous situations. Role play and peer debate enables development of competencies related to professional judgement. The aim of this short communication is to report on the rationale for and integration of peer teaching resources that prompt students to justify, through discussion and debate, the basis of their own judgement and those of their peers.

Introduction

Healthcare professionals such as radiation therapists (RTs) often face professional dilemmas in the workplace. RTs work in a high-pressured clinical environment providing care to patients and their families during what can be a very challenging time. The resulting clinical environment can give rise to challenging dilemmas, where the RT needs to apply professional judgement in ambiguous situations, yet guidance by their code of conduct is indeterminate. Moral reasoning is the cognitive process individuals go through in order to reach a professional judgement when faced with a professional dilemma [1,2].

NeoKohlbergian theory proposes that individuals interpret dilemmas by activating conceptual structures in the mind which are developed from and influenced by life experiences [2,3]. This 'bedrock schema' exists to aid individuals to interpret new situations based on previous experience and is subconsciously activated [1,2]. Furthermore, Bebeau et al, propose that moral reasoning and judgement can occur at two other levels; surface level (codes, norms and rules) and intermediate level (intermediate concept measure-ICM) [4]. Intermediate concepts are guided by profession specific behaviours and are open to interpretation of what action is deemed appropriate [5]. For example, when RTs are faced with a professional dilemma, they need to make a morally justifiable choice between two or more equally competing choices where none of the options is ideal [6] but is morally defensible [1,7]. Research in dentistry and pharmacy have presented the potential of introducing

ICMs into healthcare education to support professional judgement [8].

Evidence indicates that short educational interventions incorporating role play and peer debate may have a positive influence on developing moral reasoning competencies [2,6]. Ribeiro et al, in their 2021 qualitative research exploring the nature of moral dilemmas experienced by medical students, advocate for pedagogical interventions such as reflective practice in a safe environment to facilitate their future development [9]. Roche et al, propose that priming students for peer debate enables reflective activities - identified by Riberio and colleagues as a prerequisite for the development of moral reasoning competencies [1]. This methodology drives peer learning as it promotes the development of listening, researching, problem solving, reasoning and questioning [10,11]. Hanna et al, demonstrated that debates are an effective educational strategy to introduce complex subject matters into a programme by engaging the student in the learning [12]. Most importantly debating is associated with improving critical thinking skills, communication, self-directed learning and developing skills in discussion and negotiation [10,11]. Peer debate enables the educator to force the student to take a position within the discussion forum, therefore engaging the student in the cognitive organisation of their profession specific ethical constructs. Debate should also provide a safe environment where students respect other viewpoints and therefore do not take on a superiority perspective [13]. Educators should avoid expressing their own views as they create an environment where students feel unsafe to express their views. [14].

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Within this institution students currently are educated by a modern curriculum that is guided by active learning principles such as small group discussions, reflective practice, interactive lectures, journal clubs, peer debate and role play. The aim of these workshops was to introduce students to professional judgement and moral reasoning using complex professional dilemmas they may face in their clinical practice.

Materials and methods

Moral Reasoning and professional judgement was introduced via an online workshop into the undergraduate curriculum for second and third year students in the 2021–2022 academic year. Collaboration between second and third year students was considered the best approach in this peer learning format. Both groups had sufficient understanding of the complexities of the clinical environment and had recently completed clinical modules that included professionalism, professional code of conduct and ethics and reflection. The content was available to students during the workshops. Students also sign the Discipline-specific professional code of conduct annually. Profession-specific scenario-based dilemmas were developed, and delivered in a process that drives peer debate and discussion. This educational intervention was designed to support student development of professional judgement competencies and was facilitated by two Assistant Professors with more than 10 years practical clinical experience in RT.

Educational design

The design of this workshop is illustrated in Table 1. Design principles for this workshop were based on individual and social constructivist principles as adapted for the development of moral reasoning competencies by Roche et al. [2] – namely the development of profession-specific dilemma scenarios (ICMs), and a range of non-ideal action options in order to drive peer interaction and debate.

Four professional dilemma scenarios derived from within the RT context were created and recorded using Vyond™ animation software. They focused on interpersonal relationships in the workplace, challenging the embedded culture within a workplace, and advocating for vulnerable patients’ care. Each scenario had an accompanying worksheet and more than one choice where no choice was ideal. There were many competing factors that could influence the professional judgement being made and would require justification when presented to peers [15,16]. The transcripts and accompanying worksheets from each scenario are provide in the supplementary material.

On reflection on previous iterations of this module, it became clear that a key element of the design was that each student must first independently review the scenario and provide judgement through ratings before the scheduled peer-debate. Prior to the online workshop each student initially rated each option from A-F as HD = Highly Defensible; D = Defensible; Q = Questionable; ND = Not defensible [supplementary material] for each scenario, and then provided their three most and least preferred options in rank order of preference. By declaring an independent opinion before they enter the debate, students are required to justify this decision within the group and then negotiate the final group perspective [2]. By omitting this step on the first iteration, a lack of diversity of opinion was observed by the facilitators. This could also be attributed to group dynamics where more senior students may influence the decision-making process.

The facilitators allocated students to groups based on submitted options. As the groups were designed to encourage debate, students with differing opinions were designated to the same group to ensure diversity of opinion within the groups.

Workshop delivery

Following submission of pre-workshop activities, the students participated in 2 online workshops scheduled one week apart. The

Table 1
Education Design of this second iteration of Judgement and Moral Reasoning Workshop.

Development of Module	Rationale
<ol style="list-style-type: none"> Four professional dilemma scenarios created Four individual worksheets created providing action options Videos designed illustrating dilemma scenarios 	<ol style="list-style-type: none"> Challenging profession specific dilemmas created to activate students’ intermediate level’ reasoning so they consider how they address scenarios that are not covered by professional code of conduct
Implementation of Module	Rationale
Phase 1	<ol style="list-style-type: none"> To facilitate students independently developing their own reasoning and responses before being influenced by the judgement and thoughts of their peers
<ol style="list-style-type: none"> Students given one week to independently review scenarios and answer worksheet 	
Phase 2	<ol style="list-style-type: none"> Diversity of opinion in each group to stimulate peer debate and promote the skills to negotiate final consensus on group decision <ul style="list-style-type: none"> Years groups balanced between 2nd and 3rd year to share clinical experience.
<ol style="list-style-type: none"> Facilitators met and reviewed submissions and purposively assigned students to groups based on <ul style="list-style-type: none"> Year of study Conflicting action options submitted 	
Phase 3	<ol style="list-style-type: none"> Introduce students to skills of negotiation that needs to be applied in a group setting (e.g. etiquette, collaboration, other perspectives) and tasks to be completed. To prevent domination of the senior group and ensure both groups participated in reaching final decision-one 2nd year and one 3rd year had to present. Each member had to have a contributing role overseen by a student selected chair. To ensure students were clear on tasks and all members were actively participating in the conversation.
<ol style="list-style-type: none"> Facilitators presented 15-minute presentation on tasks and rules of engagement and negotiation Students put in breakout rooms to organise roles of the team (i.e. chair, presenters, note-keeper) and to complete tasks (1 h). Facilitators visited each breakout rooms intermittently 	
Phase 4	<ol style="list-style-type: none"> Encourage active participation- each member had to contribute to the slides <ul style="list-style-type: none"> Facilitator could probe findings to verify that action option chosen was the true consensus
<ol style="list-style-type: none"> 7 min given to each group to present their consensus and justification to the entire group 	

facilitators began the workshop with a short presentation on the role of professional judgement within the workplace and the aim of the workshops in facilitating the development of these concepts. Each of the scenarios was presented to the entire group again. Students were subsequently allocated to ‘breakout rooms’ based on pre-arranged groups for discussion and debate. Students were given one hour to reach consensus on the most preferred option and least preferred option for each scenario.

Groups were limited to 6–7 students with relatively equal numbers of second and third year students. The objective of the workshop was for each group to reach an agreed consensus through negotiation. To ensure engagement of all participants, groups were asked to volunteer themselves into each key role (e.g., note-takers, presenters, chair, time-keeper). This was to provide each student opportunity to voice their opinion and avoid second years possibly feeling intimidated in the presence of more senior years.

The facilitators entered each breakout room at regular points during the allocated hour to check that all students were participating, and the group was clear on how to complete the task. It was important that facilitators offered no opinion and instead answered queries or clarified process.

At the end, the students prepared a short presentation delivered by two group members on how they came to this decision and explain how diversity of opinion was reconciled. When presenting their selected option, each member had to give rationale and justification for their choice. To ensure further inclusion of the second-year group, one of the

presenters had to be from this group for all presentations. The facilitators probed students to ensure that the process of reaching consensus was fully presented.

Results

These are based on facilitators' observation of behavioural change within the student group dynamics rather than student feedback. Facilitators observed increased engagement in the breakout rooms and students appeared comfortable discussing their viewpoints. They openly discussed some of their conflicting views, their peers listened to different opinions and then constructively responded. Each student spoke willingly about their personal beliefs around friendship, family, and their role as a professional. They were observed negotiating their beliefs with increased confidence in this iteration after they were given rules of negotiation prior to commencing the scheduled peer debate.

Facilitators regrouped after visiting the breakout rooms. During this reflective discourse, facilitator observations were discussed. Facilitator 1 reported full engagement from the groups while facilitator 2 noted that one group had begun discussing the scenario before completing assignment of their roles. This group was disorganised, with some appearing disinterested and not engaged. Once advised by facilitator 2 to organise themselves into team roles, this facilitator observed improvement in the group dynamics as each student knew what to do. At the regroup, it was discussed how overall disorganisation and lack of engagement was less evident than in the previous iteration. It was reflected that giving the students responsibility within the team seemed to motivate each student to get involved. It was agreed that there was much more teamwork evident/observed compared to the previous iteration with Team Roles observed as being an effective way to engage students in the task. The change in implementation design was observed as being much more effective by both facilitators.

Recommendations for development of the moral judgement and reasoning workshops

This short communication aims to provide recommendations that will support the development of similar workshops in any healthcare curriculum. The design of the workshops was to prioritise facilitating students' engagement with peers as they discussed and debated dilemma scenarios to justify the basis of their individual judgement as how the dilemma should be resolved while also engaging with alternate justifications provided by their peers. Scenarios and action options used for this workshop are provided in the [supplementary material](#).

These dilemma scenarios can be adapted to address the specific context of any profession.

Recommendations.

Key Learning points from our experience are:

- 1) It is essential to provide students with the opportunity to reflect on the ICM dilemmas and their own values and opinions before peer debate.
- 2) A face-to-face setting for the workshop is recommended. The key issue being that as students are in breakout rooms it is not possible to continuously observe the students discourse and engagement unlike the face-to-face environment where constant observation is possible.
- 3) Rules of engagement must be given to each student to ensure respect and inclusivity of all opinions. There may be variances in opinions and beliefs, fear of peer judgement must be removed, and a safe environment is key.
- 4) Give each member of the team a role so that they can all contribute equally assigned tasks of the team. Teamwork was observed through discussion and every-one getting an opportunity to contribute.

Limitations

The key limitation in an online workshop is internet connectivity which can be poor thus limiting camera use by some students. Camera use in the online environment is conducive to building both instructor to student and student to student relationships as students gain a complete picture including non-verbal cues from their peers [17]. However, despite this limitation, debate and discourse was observed with the approach outlined above.

Conclusion

In modern RT curriculum, it is no longer enough to expect students just to make moral ethical decisions and judgements without guidance or support. This is a complex process that needs to be facilitated within modern RT curricula. Enabling students to reflect and debate their decision-making ability with peers enables them to begin the process of developing their own professional judgement so they can confidently engage in the process of moral and ethical decision making.

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Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary material

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.tipsro.2022.10.002>.

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