Realistic Radiation Therapist Training in a Simulated Clinical Department

Purpose

While the radiotherapy clinical environment is a source of rich learning for radiation therapy students, workload pressure on clinical departments can impact on implementation and support of placements as well as restrict learning opportunities. Although evidence supports use of simulation for health profession training, much of this (1) is based on students' self-assessment of enjoyment and perceived learning (2). Simulation activities are also generally restricted to specific aspects of the role and rarely provide a realistic representation of the daily workload. This study aimed to test the hypothesis that an integrated simulation placement can facilitate student achievement of clinical learning outcomes. The project also aimed to scope the potential to reduce the clinical training burden by directly replacing some clinical weeks with simulation.

Methods

A cohort of 29 first-year undergraduate radiation therapy students were randomly assigned to either simulation placement, based in an academic facility, or conventional fortnight clinical placement. Formative assessment of all students was performed based on the existing clinical outcomes and assessment criteria grids and scores were compared between the two groups.

Results

Mean overall scores for each cohort were within 3% of each other. The simulation cohort had statistically significant ($p = 0.028$) higher "communication" scores than the traditional group. The integrated and prospectively designed learning experience of the simulation placement combined with the ability to gain both technical and interpersonal skills through mistakes helped improved learning compared to clinical placement. Feedback indicated that students valued the structured approach of the placement and the opportunity to gain familiarity with techniques in a safe unpressured environment while learning from mistakes.

Conclusion

Results from this study confirm that intensive simulation can enable students to acquire clinical skills away from busy departments. Better-prepared students will integrate with clinical staff more readily and improve the patient experience. Use of simulation placements may allow for reduction of overall clinical placement time, reducing departmental training burden.

References

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