

Implementing an Institution-wide Resident-as-Teacher Program: Successes and Challenges

TZU-CHIEH YU, MBChB
ANDREW G. HILL, MBChB, MD, FRACS, FACS

The role of the resident as teacher has taken on significant meaning during the past 40 years. As a consequence, numerous Resident-as-Teacher (RaT) programs have emerged as a means of formally improving resident teaching skills.¹ Current understanding of such programs indicates that they not only improve resident attitudes and perceptions toward clinical teaching but also positively affect teaching knowledge, skills, and behaviors.¹⁻⁵ In recognition of the importance of preparing residents for their role as clinical teachers, both the Liaison Committee on Medical Education and the Accreditation Council of Graduate Medical Education (ACGME) now require RaT programs to be incorporated into resident training.

In this edition of *JGME*, Pien et al⁶ describe the successes and challenges of developing and implementing the Resident Educator and Life-long Learner (REALL) program, a faculty-led RaT program at a large, tertiary institution. We applaud the authors for attempting the institution-wide implementation of a novel, well-planned, and well-rounded program. After this preliminary study, the authors plan to continue evaluation and development of the program. It is encouraging that the authors sought to measure the program's effectiveness with the help of medical students, who can discriminate among clinical tutors based on teaching skills and effectiveness of their teaching.⁷⁻⁹ We further commend the uniqueness and self-sustainability of this RaT program. Developed by a team of educational experts from within the institution, the program has considerable potential to meet the individual needs of this institution and obtain local support and recognition.

Given that the characteristics of an "effective" RaT program have yet to be documented,¹ program leaders should ensure the RaT program provides evidence of content validity, that is, the program should be developed by experts using an accepted method. This will be an important factor in the acceptance and success of the program. However, before RaT training programs are

implemented, leaders also need to clearly define the educational effects they hope to achieve. With these objectives in mind, the leaders can plan how best to evaluate the program. Valid assessment tools may not be available, and clear outcomes may not be easily determined. For example, to evaluate the effect of RaT programs on the learning outcomes of medical students (Kirkpatrick's level 4¹), investigators will first need to delineate what educational contributions are made by residents to the student learning environment.

If the objective is to improve resident teaching skills (Kirkpatrick's level 2¹), there are several useful outcome measures and evaluation methods. We suggest the use of objective, reproducible, and performance-based evaluations of teaching skills, if resources are available. Not only do these evaluations allow educational leaders to collect summative information, but they also provide residents with formative feedback. Currently the most extensively studied assessment of teaching skills is the Objective Structured Teaching Exam (OSTE). First described in the literature in the early 1990s, OSTEs are modeled after Objective Structured Clinical Exams but target teaching knowledge and skills.¹⁰ Use of "standardized students" (a concept similar to "standardized patients") to role-play "difficult" learners adds further complexity and dimensionality to the OSTE.¹¹⁻¹³

The REALL program developed by Pien and colleagues has the potential for wide-spread acceptance by residents because of its use of skilled faculty trainers, who facilitate implementation of the program at the resident level. Previous research tells us that, along with a lack of teaching skills and busy clinical schedules, residents identify a lack of faculty support as a key barrier limiting resident-led clinical teaching.^{14,15} Recruitment of faculty educators to implement the resident teaching aspect of this program sends a very strong message to residents.

Allowing faculty trainers to adapt the training materials to unique teaching environments and clinical situations corresponding to their specialty is an essential feature of this program. By promoting faculty autonomy, the REALL program encourages not only individual application of theoretic RaT principles to clinical practice, but also faculty trainer confidence and self-reliance.¹⁶ With this flexibility, a "generic" teaching module may be successfully implemented across a large variety of specialties.

As faculty trainers play an essential role in this program, the results from the pilot study showing only 22%

Both authors are at the Department of Surgery, South Auckland Clinical School, Faculty of Medical and Health Sciences, University of Auckland, New Zealand. **Tzu-Chieh Yu, MBChB**, is Research Fellow, and **Andrew G. Hill, MBChB, MD, FRACS, FACS**, is Associate Professor.

Corresponding author: Dr Tzu-Chieh Yu, South Auckland Clinical School, University of Auckland, Middlemore Hospital, Private Bag 93 311, Otahuhu, Auckland 1006, New Zealand, 64 9 276 0076, wendyyu@auckland.ac.nz

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participation by faculty, during phase 2 of program development and implementation, are disappointing. Institution-wide implementation of the RaT program was not achieved. Listed below are some suggestions for increasing faculty participation, which must include changing the “culture” that surrounds faculty- and resident-led clinical teaching at an institution:

1. A preimplementation needs assessment to gauge faculty and resident receptiveness to a RaT program^{2,17-19};
2. A faculty-accreditation system attached to the RaT program, with teaching involvement recognized officially as activities in professional development, instructional development, leadership development, and organizational development¹⁶;
3. Faculty and residents recognized as valuable clinical teachers, for example, awards to recognize outstanding teachers;
4. More active recruitment of faculty trainers, rather than via e-mails, and designations by program directors; more faculty may have been recruited if the REALL program committee members met with all faculty members and chose “champions” from each discipline;
5. Exploratory information collected from early faculty participants and nonparticipants on the factors allowing or preventing them from attending the 7 monthly sessions during phase 2; for example, it may be helpful to gather the group of 20 faculty trainers who implemented at least 1 session during phase 3, and run focus groups to qualitatively assess why they were “successful.”

In conclusion, we feel that the REALL program is an exciting, visionary program, and the authors are to be congratulated for their contribution to the literature in this area. The article raises important issues about faculty “buy-in” and basic assumptions in resident and faculty Teach-the-Teacher interventions. To change the underlying

institutional teaching culture is difficult: We endorse future research efforts to clarify and define how this might be achieved.

References

- 1 Hill AG, Yu TC, Barrow M, Hattie J. A systematic review of resident-as-teacher programmes. *Med Educ*. 2009;43(12):1129-1140.
- 2 Dunnington GL, DaRosa D. A prospective randomized trial of a residents-as-teachers training program. *Acad Med*. 1998;73(6):696-700.
- 3 Morrison EH, Rucker L, Boker JR, et al. The effect of a 13-hour curriculum to improve residents' teaching skills: a randomized trial. *Ann Intern Med*. 2004;141(4):257-263.
- 4 Dewey CM, Coverdale JH, Ismail NJ, et al. Residents-as-teachers programs in psychiatry: a systematic review. *Can J Psychiatry*. 2008;53(2):77-84.
- 5 Wamsley MA, Julian KA, Wipf JE. A literature review of “resident-as-teacher” curricula: do teaching courses make a difference? *J Gen Intern Med*. 2004;19(5, pt 2):574-581.
- 6 Pien LC, Taylor CA, Traboulsi E, Nielsen CA. A pilot study of a “resident educator and life-long learner” program: using a faculty train-the-trainer program. *J Grad Med Educ*. 2011;3(3):332-336.
- 7 Zuberi RW, Bordage G, Norman GR. Validation of the SETOC instrument—student evaluation of teaching in outpatient clinics. *Adv Health Sci Educ Theory Pract*. 2007;12(1):55-69.
- 8 McLeod PJ, James CA, Abrahamowicz M. Clinical tutor evaluation: a 5-year study by students on an in-patient service and residents in an ambulatory care clinic. *Med Educ*. 1993;27(1):48-54.
- 9 Solomon DJ, Speer AJ, Rosebraugh CJ, DiPette DJ. The reliability of medical student ratings of clinical teaching. *Eval Health Prof*. 1997;20(3):343-352.
- 10 Zabar S, Hanley K, Stevens DL, et al. Measuring the competence of residents as teachers. *J Gen Intern Med*. 2004;19(5, pt 2):530-533.
- 11 Ellen J, Giardino AP, Edinburgh K, Ende J. Simulated students: a new method for studying clinical precepting. *Teach and Learn Med*. 1994;6(2):132-135.
- 12 Gelula MH. Using standardized medical students to improve junior faculty teaching. *Acad Med*. 1998;73(5):611-612.
- 13 Lang F, Bennard B, Belanger A. Using standardized students to educate preceptors. *Acad Med*. 1995;70(10):855-856.
- 14 Apter A, Metzger R, Glassroth J. Residents' perceptions of their roles as teachers. *J Med Educ*. 1988;63(12):900-905.
- 15 Busari JO, Prince KJ, Scherpbier AJ, Van Der Vleuten CP, Essed GG. How residents perceive their teaching role in the clinical setting: a qualitative study. *Med Teach*. 2002;24(1):57-61.
- 16 Wilkerson L, Irby DM. Strategies for improving teaching practices: a comprehensive approach to faculty development. *Acad Med*. 1998;73(4):387-396.
- 17 Katzelnick DJ, Gonzales JJ, Conley MC, Shuster JL, Borus JF. Teaching psychiatric residents to teach. *Acad Psychiatry*. 1991;15(3):153-159.
- 18 Susman JL, Gilbert CS. A brief faculty development program for family medicine chief residents. *Teach Learn Med*. 1995;7:111-114.
- 19 White CB, Bassali RW, Heery LB. Teaching residents to teach. an instructional program for training pediatric residents to precept third-year medical students in the ambulatory clinic. *Arch Pediatr Adolesc Med*. 1997;151(7):730-735.