

Attributes of an ideal Family Medicine residency training program

Abdulaziz Almahrezi, Mohammed Al-Shafae

Received: 15 July 2007

Accepted: 23 September 2007

From: Department of Family Medicine & Public Health, College of Medicine & Health Sciences,
Sultan Qaboos University, Muscat, Oman.

Address Correspondence and reprint request to: Abdulaziz Almahrezi, Department of Family Medicine and Public Health, College of
Medicine & Health Sciences, Sultan Qaboos University.

Email: abdulaziz@squ.edu.om

Medical education has been traditionally based on the pedagogical model of teaching. However, a gradual shift away from this model to a student centered approach has been observed. Factors such as the radical expansion of medical knowledge, changing need of the society and technological advances have contributed a lot to the acceleration of this process. Many medical schools worldwide have already implemented the principles of adult education as basis for reforms in their curricula. Moreover, attention has also been focused on a changing role of teachers from a transmitter of knowledge to that of a facilitator of learning. Problem based learning, guided discovery learning, small group teaching, peer evaluation and self assessment all illustrate some examples of application of this approach into medical education. Studies conducted at universities applying the new curriculum have shown higher participation rates by the students compared to universities with traditional programs.¹ Advantages of adopting this approach in teaching and learning can be enormous. Acquiring the skills for lifelong learning, self assessment, critical appraisal and self reflection are all of great value to future doctors.

Teaching in an ambulatory setting as it is the case in Family Medicine adds more challenges for clinical teachers. These include: variability, unpredictability, immediacy and lack of continuity.² Several methods have been postulated for this setting.³ However, there is limited evidence regarding the effectiveness of these methods.² What is shown is that in the ambulatory setting, the behavior of the teacher seems to strongly influence the perceived success or failure of a teaching session.^{4,5} Irby found out that the best clinical teachers are enthusiastic, clear, well organized and skillful in interactions with students.⁶ In the context of Family Medicine, Durno proposed 10 essential steps for GP-trainers: enthusiasm, clinical soundness, attendance of a basic trainers' course, satisfactory premises, good records, time to teach, knowledge of general practice publications, support by partners and staff of teaching, recognition of the need for assessment and understanding of one-on-one teaching methods.⁷ Additionally, a competent GP-trainer should have the following characteristics: good understanding of basic teaching methods as well as ability to apply this knowledge, observation skills, skills to provide feedback and skills to foster reflection in the trainee.⁸

The majority of Family Medicine residency training programs are built on the traditional model which is more than 30 years old.⁹ Residents spend most of their training in hospital based rotations except for 2 or 3 full or half days per week when they go back to their family medicine clinics. Such rotational model has been criticized for the following reasons: lack of continuity of care, teaching is done by other specialists rather than family physicians and wasting time in learning complex procedures that graduates will never use in their practical life.^{9,10} A longitudinal model has been suggested to replace the existing model. The main components of the new model include: increased exposure to Family Medicine, closer supervision of residents, and reduction of hospital-based rotations.⁹

Tannenbaum had reported a unique experience from a Canadian residency program in which block rotations were replaced with "horizontal" experiences comprising 3 half-days of patient care for all residents through both years of the program.¹¹ As a result, continuity of care was greatly enhanced.

Unfortunately, although the longitudinal model may be at least theoretically superior to the rotational model, evidence from research is not available yet making it unwise to recommend this model for widespread use.^{9,12}

Besides structure, length of the program has also been debated. Two studies which were both conducted in USA looked at this issue and both had the same conclusion supporting the current 3-year model of training.^{13,14} A study from Scotland reported a positive outcome when the general practice registrar component of vocational training was extended to 18 months.¹⁵ In Canada, it is under discussion that the post graduate residency program be extended to three full years for all residents.

An ideal residency program in Family Medicine may, therefore, probably be three years in duration. An optional fourth year as a fellowship in a specific area of interest may be worth considering. In terms of structure, it might be appropriate at present to consider changes in the rotational model so that residents spend more time in Family Medicine under the supervision of family physicians rather than in hospital under the supervision of specialists. This change may improve continuity of care as well as increase residents' motivation and interest.

Regarding teaching, an ideal program must incorporate principles of adult education as basis for its curriculum. However, it is not sufficient to change curricula without having specific programs to educate clinical teachers and prepare them for this approach. Faculty physicians, even the experienced ones, need sufficient opportunity and motivation for self-study, self-reflection, career development and other faculty development activities.¹⁰ Evaluation is an essential process for quality improvement that should be applied to every program. In this process, residents should be given the opportunity to evaluate teachers, every rotation and the program as a whole. Furthermore, teachers should be evaluated and specific programs should be initiated to improve their teaching skills.

Research constitutes an integral part of medical education. Attention must be given to quality of research produced as well as publications. Residents should be encouraged to be involved in studies of prospective nature and clinical trials.

In summary, an ideal family medicine residency training program could be built on a longitudinal model. Residents in this model of training would spend more time doing family medicine and less time in the hospital. Thus training would be more relevant to their future role as family physicians. Further research is needed in order to confirm the superiority of this model.

References

1. Herrick CA, Jenkins TB, Carlson JH. Using self-directed learning modules. A literature review. *J Nurs Staff Dev* 1998 Mar-Apr;14(2):73-80.
2. Heidenreich C, Lye P, Simpson D, Lourich M. The search for effective and efficient ambulatory teaching methods through the literature. *Pediatrics* 2000 Jan;105(1 Pt 3):231-237.
3. Fields SA, Usatine R, Steiner E. Teaching medical students in the ambulatory setting: strategies for success. *JAMA* 2000 May;283(18):2362-2364.
4. Gjerde CL, Coble RJ. Resident and faculty perceptions of effective clinical teaching in family practice. *J Fam Pract* 1982 Feb;14(2):323-327.
5. Stritter FT, Baker RM. Resident preferences for the clinical teaching of ambulatory care. *J Med Educ* 1982 Jan;57(1):33-41.
6. Irby DM. Clinical teacher effectiveness in medicine. *J Med Educ* 1978 Oct;53(10):808-815.
7. Durno D. Top 10 points for trainers. *Br Med J (Clin Res Ed)* 1984 Mar;288(6421):909-910.
8. Boendermaker PM, Schuling J, Meyboom-de Jong BM, Zwierstra RP, Metz JC. What are the characteristics of the competent general practitioner trainer? *Fam Pract* 2000 Dec;17(6):547-553.
9. Weiss BD. Longitudinal residency training in family medicine: not ready for prime time. *Fam Med* 2001 Nov-Dec;33(10):762-765.
10. Weiss BD. Family practice residency training: can we make it better? *Fam Med* 2000 May;32(5):346-349.
11. Tannenbaum DW. New "horizontal" curriculum in family medicine residency. *Can Fam Physician* 1998 Aug;44:1669-1675.
12. Merenstein D, Damico F, Devine B, Mahaniah KJ, Solomon M, Reust CE, et al. Longitudinal versus traditional residencies: a study of continuity of care. *Fam Med* 2001 Nov-Dec;33(10):746-750.
13. Ferentz KS, Sobal J, Colgan R. Family medicine residency training—three or four years? *J Fam Pract* 1988 Apr;26(4):415-420.
14. Duane M, Green LA, Dovey S, Lai S, Graham R, Fryer GE. Length and content of family practice residency training. *J Am Board Fam Pract* 2002 May-Jun;15(3):201-208.
15. McKinstry B, Dodd M, Baldwin P. Extending the general practice training year: experience of one model in Scotland. *Med Educ* 2001 Jun;35(6):596-602.