Professionalism and Soft Skills in Residency: Finding a Happy Medium Between Didactic Instruction and Self-directed Learning

AAPM 2020
“Education is what survives when what has been learned has been forgotten.”

BF SKINNER

How are we training residents?

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Disclosures

- Chair of AAPM MPRTP
- Co-Chair of ETC
- Chair of SDAMPP Outreach Committee

Unrelated:
- Research funds from Varian
- Chair of AAPM TG–302
Learning Objectives

1. Highlight data supporting the need for formalized training for professionalism and soft skills during residency.

2. Investigate how adult learning concepts can be integrated into residency training.

3. Learn about teaching soft skills including how to communicate with patients and other allied health professionals.
Session Outline

- Introduction
- Current standards for residency programs
- Current online resources
- How to teach adult learners?
- How to teach soft skills (e.g. professionalism)?
- Conclusions
INTRODUCTION
My personal experience as a resident

- Medical physics graduate
- 2000–2002
- Here’s a self–study → ABR certification
- Lots of hands–on–experience!
John Dewey: educational reformer

Give the pupils something to do, not something to learn; and the doing is of such a nature as to demand thinking; learning naturally results.

— John Dewey
RESIDENCY STANDARDS
Current standards for residencies

- AAPM TG–249
- ABR
- CAMPEP
CAMPEP Standards for TMP Residency

- **Professionalism**
- **Leadership**
- **Ethics**
- Conduct system calibrations, performance evaluations and quality control, safety and compliance tests, including vendor specifications, under supervision of a qualified physicist
- Treatment planning & delivery
- **Safety**
- **Informatics**
- **Therapeutic radiopharmaceutical**
Standards evolve with clinical practice

CAMPEP

ABR

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ONLINE RESOURCES
Online resources for training residents

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Review of online educational resources for medical physicists

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Medical physicists are often involved in the didactic training of graduate students, residents (both physics and physicians), and technologists. As part of continuing medical education, we are also involved in maintenance of certification projects to assist in the education of our peers. As such, it is imperative that we remain current concerning available educational resources. Medical physics journals offer book reviews, allowing us an opportunity to learn about newly published books in the field. A similar means of communication is not currently available for online educational resources. This information is conveyed through informal means. This review presents a summary of online resources available to the medical physics community that may be useful for educational purposes.
Online resources for training residents

Motivation

• Medical physicists (MP) are involved in the education of undergraduate and graduate students, as well as residents.
• Currently, there is no reliable means of communicating or publicizing new online educational resources.

AAPM VL J Prisciandaro, 2014
Online resources for training residents

**Categories**

1. List servers
2. Professional organizations
3. National/international agencies
4. Universities websites
5. Miscellaneous websites
Web Modules on Professionalism and Ethics

William Hendee, PhD\textsuperscript{a}, Jennifer L. Bosma, PhD\textsuperscript{b}, Linda B. Bresolin, PhD\textsuperscript{c}, Leonard Berlin, MD\textsuperscript{d}, R. Nick Bryan, MD, PhD\textsuperscript{e}, Richard B. Gunderman, MD, PhD\textsuperscript{f}

Health care disciplines have always held resolutely to a commitment to professionalism and high ethical standards. With the present emphasis on public accountability, professionalism and ethics are receiving enhanced attention in health care education and practice. A challenge for radiologists, radiation oncologists, and medical physicists is to define the scope and depth of knowledge about professionalism and ethics that are necessary for the practice of the disciplines. A further challenge is to develop accessible educational materials that encompass this required knowledge. About 2 years ago, the ABR Foundation decided to address these challenges through the development of an ethics and professionalism curriculum and production of a series of Web-based educational modules that follow the curriculum. Six organizations agreed initially to contribute financially to construction of the curriculum and modules and were later joined by a seventh. The curriculum was developed by the ABR Foundation and included in a request for proposals that was widely distributed. Teams of authors for each of 10 modules were selected from respondents to the request for proposals. As the modules were developed, they were reviewed in 3 successive stages, including peer review by members of the ACR Committee on Professionalism and the RSNA-ACR Task Force on an Ethics Curriculum. After revisions were prepared in response to the reviews, the modules were translated into a format compatible with the e-learning platform on which they are mounted. The modules are now available to all who wish to study them.

**Key Words:** Ethics, professionalism, modules, accountability, curriculum

*J Am Coll Radiol 2012;9:170-173. Copyright © 2012 American College of Radiology*
Online resources from training residents
ADULT LEARNING STRATEGIES
Teaching adult learners

Adult Learning Techniques: What Are They and How Can You Use Them?

Laura Padilla, PhD DABR
AAPM 2017 59th Annual Meeting & Exhibition - Denver, CO

AAPM VL L Padilla, 2017
Teaching adult learners

Adult Learners

- Have pre-existing knowledge and experience
- Need to know why this knowledge is useful
- Are task-oriented
- Need to take responsibility for own learning

Laura Padilla, PhD

AAPM 2017, 59th Annual Meeting & Exhibition

AAPM VL L Padilla, 2017
TEACHING SOFT SKILLS
Soft skills vs hard over career time...

https://images.app.goo.gl/k3UjzxCvdbriHrBj6
Teaching soft skills

Strategies for Learning and Teaching Patient Communication Skills

Derek Brown, PhD
Radiation Medicine & Applied Sciences

UC San Diego
RETHINKING MEDICAL PHYSICS

Do I have these skills?

AAPM VL D Brown, 2017
Teaching soft skills

Competency Assessment

- How do we know when/if trainees are competent?
  - This is a really important, and difficult, question…
  - When trainer feels comfortable? When trainee feels comfortable?

- Specific metrics
  - Did trainee engage/empathize/educate/enlist patient during interaction?
  - Was the patient satisfied with level of technical detail provided?
  - Did the consult increase or decrease patient anxiety?
Let’s put it all together....

- Lots of standards to meet
- Soft skills are becoming increasingly important in our field
- We may not have all the expertise locally...
Program Director
Let’s put it all together

- Lots of standards to meet
- Soft skills are becoming increasingly important in our field
- We may not have all the expertise locally...
- Online resources may be helpful
- We are a community of educators!
- Adults learn by doing!
  - Experiential learning
  - Assuming responsibility
You **cannot teach today the same way you did yesterday to prepare students for tomorrow.**

— John Dewey
Thank you for your attention!

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