# Resident Role Modeling: "It Just Happens"

Robert Sternszus, MDCM, Mary Ellen Macdonald, PhD, and Yvonne Steinert, PhD


## Abstract

### Purpose
Role modeling by staff physicians is a significant component of the clinical teaching of students and residents. However, the importance of resident role modeling has only recently emerged, and residents' understanding of themselves as role models has yet to be explored. This study sought to understand residents' perceptions of themselves as role models, describe how residents learn about role modeling, and identify ways to improve resident role modeling.

### Method
Fourteen semistructured interviews were conducted with residents in internal medicine, general surgery, and pediatrics at the McGill University Faculty of Medicine between April and September 2013. Interviews were audio-recorded and subsequently transcribed for analysis; iterative analysis followed principles of qualitative description.

### Results
Four primary themes were identified through data analysis: residents perceived role modeling as the demonstration of "good" behaviors in the clinical context; residents believed that learning from their role modeling "just happens" as long as learners are "watching"; residents did not equate role modeling with being a role model; and residents learned about role modeling from watching their positive and negative role models.

### Conclusions
While residents were aware that students and junior colleagues learned from their modeling, they were often not aware of role modeling as it was occurring; they also believed that learning from role modeling "just happens" and did not always see themselves as role models. Helping residents view effective role modeling as a deliberate process rather than something that "just happens" may improve clinical teaching across the continuum of medical education.


Role modeling of both positive and negative behaviors by staff physicians is an essential component of clinical teaching and can influence the formation of a learner's professional identity via the enculturation of values, attitudes, and character.[1,2] In addition, recent studies suggest that medical students view residents as important role models and identify role modeling as one of the most important ways in which they learn from residents.[3–5] As a result, understanding how residents perceive their role modeling and how it can be optimized is an important objective for medical education.


**R. Sternszus** is pediatrician, Department of Pediatrics, Faculty of Medicine, McGill University, Montreal, Quebec, Canada.

**M.E. Macdonald** is assistant professor, Division of Oral Health and Society, Faculty of Dentistry, and core faculty member, Centre for Medical Education, McGill University, Montreal, Quebec, Canada.

**Y. Steinert** is professor of family medicine and director, Centre for Medical Education, Faculty of Medicine, McGill University, Montreal, Quebec, Canada.

Correspondence should be addressed to Robert Sternszus, Centre for Medical Education, 1110 Pine Ave. W., Lady Meredith House, McGill University, Montreal, QC H3A 1A3, Canada; telephone: (514) 398-4987; e-mail: robert.sternszus@mail.mcgill.ca.



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The process of learning from role modeling has been explained by several learning theories.[1] Of them, Albert Bandura's[6,7] social learning theory, which describes the psychology of learning through observation, is one of the most commonly cited. Bandura proposes a deliberate four-step process to help a learner incorporate something that has been modeled into his or her own performance. These steps consist of explicitly focusing the learner on what is being modeled, helping the learner create a mental representation of what has been modeled, observing and providing feedback to the learner on her or his attempts to reproduce what has been modeled, and motivating the learner to continue to practice the modeled behaviors.[6,7] Further, literature on staff physicians suggests that they often role model in an implicit fashion.[8] Yet, being aware of one's role modeling and engaging in an active and deliberate process similar to the one described by Bandura may be important in optimizing its effectiveness.[2,9–11]

Despite the increasingly recognized importance of residents as role models and deliberate role modeling, to our knowledge there is no literature exploring residents' views on themselves as role models, or whether they experience their role modeling as a deliberate process. This study addresses three main objectives: to understand residents' perceptions of themselves as role models, to describe how residents learn about role modeling, and to identify ways to help improve resident role modeling.

## Method

### Setting and sampling

The study population consisted of internal medicine, general surgery, and pediatric residents at the postgraduate year two level or higher, at McGill University. First-year residents were excluded, given that they do not have significant opportunities to serve as role models. We selected participants with the goal of obtaining sample heterogeneity across contextual and demographic variables, including training program and year of training, to ensure that our sample provided a complete picture of the phenomenon of interest.[12] None of the residents in the Faculty of Medicine at McGill University receive formal teaching about role modeling as part of their Resident-as-Teacher program; therefore, this variable was not included in participant selection.

### Recruitment

After obtaining approval from the McGill University Faculty of Medicine institutional review board, the lead

researcher (R.S.) approached internal medicine and general surgery residents (the two largest training programs at McGill) across three hospital sites during their protected teaching activities. We presented details of the study using neutral language to avoid biasing selection. We informed residents that their participation was voluntary, confidential, and without incentive. Interested residents provided their contact information and were subsequently contacted by a research assistant to schedule an interview. Several residents who initially agreed to participate did not follow through with an interview; thus, we expanded our recruitment to pediatric residents to increase our potential sample size. Overall, 29 residents indicated that they would be interested in participating in the study. Of these, 14 participants were successfully recruited between April and August 2013.

### Data collection

Our research design used Sandelowski's[13,14] qualitative description, with Bandura's[6,7] social learning theory as the theoretical framework. Interviews were semistructured and conducted with the assistance of an interview guide developed using social learning theory as a sensitizing concept.[6,7] We piloted the interview guide with residents not involved in the study to test for clarity. It consisted of open-ended questions and prompts asking residents to describe their understanding of themselves as role models, their own experiences as role models, how they learned about role modeling, and how they thought resident role modeling could be improved (Appendix 1). After obtaining informed consent, face-to-face interviews were conducted by a research assistant with graduate training in qualitative research. Interviews, which were approximately 30 minutes in duration, were audio-recorded and transcribed by an independent party.

### Data analysis

The analysis followed principles of thematic analysis consistent with qualitative description.[13–15] One of us (R.S.) led the analysis; however, all three members of the interdisciplinary research team reviewed each transcript in an iterative fashion, alongside the interviewing process. We developed a coding scheme by consensus based on the first 3 interviews using both deductive (based on our theoretical framework) as well as inductive (from the words of the participants) codes. Team meetings were held at regular intervals, during which all team members discussed the coding scheme as well as individual transcripts. We conducted a cross-case analysis of themes identified across transcripts through this group process. After analyzing the first 4 interviews (2 with internal medicine and 2 with general surgery residents), significant similarities were already evident across the data. Despite further increasing the heterogeneity of our sample with the addition of pediatric residents, we suspected that data saturation—the point at which new data do not uncover additional aspects of the phenomenon under study[16]—had been reached after 12 interviews. After conducting 2 additional interviews, we concluded via team consensus that the data had been saturated. To further verify the trustworthiness of our findings, study participants were invited to a focus group to verify the identified themes.[17] Five residents participated in this process; group consensus confirmed our findings, and no revisions were required.

## Results

Fourteen residents participated in the study. Of them, two were from internal medicine, four from general surgery, and eight from pediatrics, spanning three different hospital sites. Ten residents were female, and four were male. Participants ranged from second-year to fourth-year residents.

We identified four themes through the analytic process: Residents perceived role modeling as the demonstration of "good" clinical behaviors in the clinical context, residents believed that learning from their role modeling "just happens" as long as students and junior residents are "watching," residents did not equate role modeling with being a role model, and residents learned about role modeling from watching their own positive and negative role models.

### Role modeling as the demonstration of "good" clinical behaviors in the clinical context

Participants described role modeling in a positive frame, defining it as "showing" or demonstrating "good" clinical behaviors. These behaviors were restricted to the clinical context and included technical and diagnostic skills as well as interactions with patients, other health care professionals, and learners. For instance, one general surgery resident remarked:

> I guess role modeling is when you have an ideal of what you want somebody's job to be or somebody's mannerism to be. Really it goes across the board. It could be anything from behavioral modeling to modeling a certain procedure or a certain technique or skill. And then you take that ideal and you demonstrate it through your own actions. (P12)

As a result of defining role modeling as the demonstration of "good" behaviors, participants' descriptions of their role modeling experiences focused almost exclusively on their own behaviors. That is, they reported being "careful" about what they would say around students and junior colleagues and were aware of the need to "act professionally" when learners were present; however, the role of the learner in the role modeling interaction was rarely acknowledged in any examples.

### Learning from resident role modeling "just happens" as long as "they're watching"

Participants felt that they were "showing" good clinical behaviors to learners, or role modeling, "all the time," and that learners were always "watching" these demonstrations. This belief stemmed from the perception that students and junior residents work with senior residents every day, witnessing almost all their interactions in the clinical setting. Furthermore, participants felt that students and junior residents were always watching them because trainees want to learn from watching those with more experience. One general surgery resident's comments are representative:

> When I was a student I was looking at residents. Now being a resident, [I'm] looking at staff. When I'm a staff, I'm sure I'm gonna look at others. It's just a continuous process. (P4)

Residents in our study also believed that as long as learners were "watching," the learning would "just happen." When probed on how they knew learning was occurring, residents reported that they "hoped" it was; however, none were able to provide a concrete example. One pediatric resident observed:

> It's got more of a passive role to it. I think when you're a role model you kind of, you're like this display and then they're watching that display and they're learning by watching and by seeing. (P9)

Participants also did not appear to be aware of their role modeling while it was occurring. Moreover, they did not see the importance of this awareness, believing that as long as they did a good job, "good role modeling would occur naturally."

### Residents did not equate role modeling with being a role model

When residents were asked to explain role modeling at the onset of the interviews, we observed a distinction between being a role model and role modeling. Although participants did not appear to be aware of the distinction that was being made, they described being a role model as being an exceptional physician that people aspired to emulate, whereas role modeling was seen as the act of demonstrating ideal behaviors. Although both being a role model and role modeling were viewed in a positive frame, participants saw role modeling as something you do, and being a role model as something you are. The following comments demonstrate this distinction:

> [A role model] can be somebody or it can be different people, that you respect and you want to not imitate, but your goal is to be somewhat like them. (P11)

> I guess role modeling in my mind is doing behaviors that … actively doing behaviors that you think should be the ideal behaviors, and what you would want your students, in this case, to learn. (P3)

Despite recognizing that role modeling was something they did "all the time," many participants did not feel they were exceptional enough to be considered role models. One pediatric resident remarked,

> I don't think medical students are thinking, "oh one day I want to be a doctor like her." (P6)

### Learning about role modeling from watching their role models

Participants reported that they learn about role modeling by watching their senior residents and staff physicians. Although residents described role modeling almost exclusively in the positive frame, when specifically asked to discuss their own experiences with positive and negative role models, they believed both had an important influence. Participants also thought they could distinguish between them, incorporating only positive attitudes and behaviors into their own role modeling while making sure to avoid emulating negative examples. For instance, one pediatric resident remarked:

> Some who would show such a bad example that you look at that and you say "god he is terrible. I never want to be that person." And that's a very powerful message too. And then, on the other hand you have somebody who stimulates you so much and you say "I want to be just like them." (P9)

In different ways, participants described role modeling the same behaviors for learners that their positive role models demonstrated for them; however, they seemed to learn about role modeling in an implicit fashion, simply by watching their attending physicians and residents perform. At the same time, participants reported a desire for formal training and wanted to learn how to be more aware of themselves as role models, give appropriate feedback, and motivate students to learn from their role modeling. A representative comment was:

> The more we have a chance to reflect on the fact that we are role modeling, whether we're thinking about it or not, the more maybe we will [role model]. (P8)

## Discussion

To our knowledge, this is the first study exploring residents' perceptions of themselves as role models. Participants described role modeling as the demonstration of good clinical behaviors in the clinical context and believed that learning from role modeling would just happen as long as students and junior residents were watching. In addition, residents were not aware of their role modeling as it unfolded, and they viewed role modeling as an unconscious and implicit process that happened all the time. Being a role model was described as being an exemplary individual, and many participants felt that the act of role modeling did not equate with the aspirational ideal of being a role model. Participants learned about role modeling implicitly, from watching their own role models demonstrate both positive and negative examples, and reported wanting formal training in the future.

Residents in our study understood modeling to be an important way that people learn, as is consistent with social learning theory.[6,7] For example, they believed that students and junior colleagues were always observing their clinical behaviors and learning from these observations. However, Bandura[6] posits that the modeling process is most effective when it is intentional, and this intentionality did not appear in participants' descriptions of their role modeling experiences. Rather, participants saw role modeling as an implicit process that just happens. Residents did not describe drawing the attention of the learners to what they were modeling, engaging the learners in active observation or conscious reflection, or motivating learners to apply what they had learned. One possible explanation for these findings is that residents learned about role modeling from watching their own staff physicians. A recent study of staff physicians suggests that most clinical teachers view themselves as "implicit role models,"[8] with other studies also describing staff physician role modeling as being largely informal or unplanned.[18,19] If our participants learned about role modeling from watching these physicians, it would follow that they, too, may see their role modeling in this way. Although learning can occur implicitly,[18] excellent role models appear to engage in this process differently. In another study, physicians identified as exceptional role models by trainees reported engaging in conscious and active role modeling,[9] employing techniques similar to those described by Bandura.[6,7] Furthermore, the importance of being aware and deliberate when role modeling for learners has become increasingly recognized in medical education.[1,2,9–11] As such, there appears to be a gap between our participants' understanding of role modeling as an unconscious and implicit process, and literature suggesting that for role modeling to be most effective there must also be conscious and deliberate elements. We believe that addressing this gap may be an important future direction for postgraduate medical education.

Our participants described a difference between the notion of being a role model and the act of role modeling. Being a role model was described in an aspirational way, with a focus on the ideal qualities of the individual. On the other hand, role modeling was described as the demonstration of good behaviors, which occurred all the time. To our knowledge,

the distinction between being a role model and the act of role modeling has not previously been reported in the literature; however, this difference may have important implications. In our study, many residents did not see themselves as role models, and we believe that the aspirational ideals to which participants held role models may have had a negative influence on their ability to identify themselves in this way. Although Bandura's social learning theory[6,7] does not help us to contextualize this finding, another component of his social cognitive theory—namely, self-efficacy theory[20]—may provide some insight. Bandura argues that an individual's performance is largely influenced by her or his perception of her or his own ability. In other words, even if someone knows how to perform a task, if he does not perceive himself as competent then he is unlikely to invest in that task. This would imply that even if a resident understands the importance of learning from role modeling, low self-efficacy about her ability to be a role model may limit the attention she devotes to it. Therefore, the aspirational ideals to which participants held role models may have resulted in lower self-efficacy about their ability to be role models, negatively influencing their role modeling awareness and active participation in the role modeling process. The distinction between being a role model and role modeling, as well as the contribution of beliefs about self-efficacy to one's role modeling awareness, merits further exploration.

Participants observed that their perceptions about role modeling formed from watching their positive and negative role models. Further, they believed that they could distinguish between the positive and negative behaviors of attending physicians in order to adopt the good and avoid emulating the bad. This suggests that participants recognized the importance of role models in shaping their own views and that they, as learners, played an active role in what they learned from their role models. These findings are highly consistent with social learning theory.[6,7] Delineating how trainees differentiate between positive and negative role models, and how positive and negative modeling experiences influence the development of a role modeling identity, remain important areas for future research.

Despite the increasing recognition of resident role modeling as one of the most important ways residents teach medical students,[3,5] to our knowledge current resident-as-teacher programs designed to improve resident teaching skills do not incorporate this content in their curricula.[5,21,22] We believe that our findings support the need to develop educational programs that promote resident role modeling. Furthermore, they provide insights into the potential content of such programs, which could include enhancing role modeling awareness and providing strategies to make resident role modeling more deliberate.

Our study provides an initial understanding of participating residents' perceptions of themselves as role models; however, there are some limitations. First, all data are self-reported and may not reflect all that is happening in practice; direct observation remains an important future direction in the study of resident role modeling. Second, our sample is small and limited to a single Canadian university; however, given that our findings were rather homogeneous despite a relatively heterogeneous sample, we believe they may have relevance to other university settings that train residents in similar contexts. Third, only 14 out of 29 residents who originally agreed to participate went on to schedule an interview, raising the possibility of a selection bias. We suspect that many residents who intended to participate in the study did not do so because we conducted the study at a particularly busy time of the academic year for postgraduate trainees. Further, we do not believe that our sample was biased in any one direction, given that no participant offered extensive commentary or opinion on role modeling (either positive or negative). Finally, further research on resident role modeling will be needed if we are to create a more complete picture of this phenomenon. Additional gaps in the literature that merit further exploration include how faculty members currently promote and assess resident role modeling, how residents can best be supported in developing their identity as role models, what students feel they learn most from their resident role models, how the discourse of role models and role modeling influences residents' perceptions of themselves as role models, and whether differences exist in residents' perceptions of themselves as role models across different specialty training programs.

In conclusion, residents in our study felt that they were role modeling for learners through the demonstration of "good" behaviors in the clinical context and recognized the importance of learning from role models. However, they did not always see themselves as role models, were often not aware of their role modeling when it was occurring, and believed that learning from role modeling "just happens." Given that many prominent medical educators argue for the importance of role modeling consciousness and viewing role modeling as a deliberate process,[2,9–11] our findings suggest that residents may need additional support if they are going to develop into more aware and effective role models. As such, helping residents see effective role modeling as a conscious and deliberate process, rather than something that "just happens," may significantly improve clinical teaching across the continuum of medical education.

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# Appendix 1

**Interview Guide, From a Qualitative Study of Residents' Understanding of Their Role Modeling, McGill University Faculty of Medicine, 2013**

Thank you for agreeing to participate in this study looking at residents as role models for medical students. Our study involves interviews with senior level residents, like yourself, and aims to gain insights into how residents perceive their experience as role models.

**1. Before getting into your own experiences with regards to role modeling, I would like to know what you think role modeling is …**

*Prompt:* If their answer is focused on teaching, ask specifically how role modeling compares to teaching.

**2. Do you see yourself as a role model for medical students and junior residents?**

*Prompts:*

- In what way?
- What do you think you role model for medical students? (Probe for specific examples)
- In what situations do you think you role model for medical students?
- Describe a situation in which you felt you were being a role model.
    - Were you aware of being a role model? What made you aware?
    - What were you role modeling?
    - Do you make it explicit—and in what way?

**3. How did you learn about being a role model?**

*Prompts:*

- Have you ever been explicitly taught about being a role model?
- In what way have positive role models had an impact on you?
    - How did you learn from them?
    - What did you learn from them?
    - What made them a positive role model?
- In what way have negative role models had an impact on you?
    - How did you learn from them?
    - What did you learn from them?
    - What made them a negative role model?
- Do positive or negative role models have a bigger impact on you? Why?

*(Appendix continues)*

# Appendix 1

(Continued)

**4. Can you describe an experience in which you felt you were a positive role model for students or junior residents?**

*Prompts:*

- What worked well? Do you think you had an impact on their learning?
- How do you know you were a positive role model in that situation?
- What factors contributed to you being a positive role model?
    - Were you aware of being a role model at that time?
- How did it feel to be a positive role model in that situation?

**5. Can you describe an experience where you were a negative role model?**

*Prompts:*

- What didn't work well? Do you think you had an impact on their learning?
- How do you know you were a negative role model in that situation?
- What factors contributed to you being a negative role model?
    - Were you aware of being a role model at that time?
- How did it feel to be a negative role model in that situation?

**6. Do you think that students and junior residents learn from your role modeling?**

*Prompts:*

- What makes you believe that they are learning?
- How do you believe they are learning from your role modeling?

**7. What are some of the ways you think you could help encourage students and junior residents to learn from your role modeling?**

**8. Do you think resident role modeling can be improved?**

*Prompts:*

- If so, should it be?
- What would you want to learn?
- How would you want learn it? [Probe for specific examples.]

**N.B.** If the resident should bring up any of the following, please prompt them to elaborate on the role it plays in their role modeling OR in the way they learn from role models:

- Drawing attention or focusing the learner
- Reflection
- Getting the learner to practice/observing the learner
- Motivating the learner