Meza J and Provenzano A. *MedEdPublish* 2015, 5: 13
http://dx.doi.org/10.15694/mep.2015.005.0013

Article Open Access

Power, Competence, and Professionalism in Medical Education

James P. Meza and Anthony Provenzano

Corresponding author: James P. Meza jmeza@med.wayne.edu

Department: Wayne State University School of Medicine, Department of Family Medicine and Public Health Sciences, 3939 Woodward, Detroit, MI 48201, USA

Received: 12/06/2015
Accepted: 22/06/2015
Published: 30/06/2015

Abstract

Introduction: This paper explores how competence of medical learners is socially constructed within power structures embedded in medical education. This social dynamic is contrasted with professionalism and its context dependent definition in medical education compared to more common conceptualizations for the medical profession in general.
Methods: Anthropological, ethnographic methods were used to collect data, primarily participant observation and ethnographic interviewing. The fieldwork site was a teaching hospital where the same "team" of attending physicians and residents were observed on both inpatient and outpatient settings. The theoretical frameworks included Paolo Friere, Pierre Bourdieu / Jean-Claude Passeron.
Results:

1. Competence is a result of acquiring a diagnostic "gaze" and once achieved, results in autonomy and authority within the medical hierarchy.
2. Professionalism in the context of medical education modulates the entire hierarchical structure and protects vulnerable individuals from harm due to potential misuse of power.

Discussion: The relationship between power, competence, and professionalism needs to be considered by educators because learners will hide important information unless their need for safety is addressed.

Keywords: Competence, professionalism and power.

Article

Introduction

This paper explores how competence in medical learners is socially created within power structures embedded in medical education. We are only able to find one other paper that identifies this perspective as an attribute of professionalism (1), however they used discourse analysis of personal diary entries and we used anthropologic, ethnographic research which uses the clinical educational setting as the primary data source allowing us to confirm and extend understanding of their findings. Our research explores the interactions between power, competence, and professionalism in the setting of an internal medicine postgraduate training programs. Other published literature on professionalism in medical education settings is either based on literature review (2-4), nonclinical settings (5-8), or fails to identify power relationships between faculty and learners as an important part of education (2-18). For that reason, this paper incrementally adds to our understanding of medical professionalism in educational settings.

This qualitative study describes the relationship between the hierarchical nature of medical education, the social creation of medical competence, and unrecognized areas of professionalism in situations of unequal power.

The following theoretical frameworks address differential power and authority in educational settings. Pierre Bourdieu and Jean-Claude Passeron demonstrate these power structures in university settings (19) and Paolo Friere compares the pedagogy of oppression to the pedagogy of liberation (20), both of which are components of medical education. Power discrepancies are also recognized by Richard Morris and Basil Sherlock who state that "…this creates an asymmetry and implicit dependence of the patient (*or trainee*)" (21) [Italics added]. Although, these formulations explain power on a social level, we found hierarchy as the marker of the expression of power in the educational setting.

The ability to identify and name a disease defines competence in Western medicine. Mary-Jo DelVecchio Good asserts that competence is the dominant professional value in medicine and that it is the basis of power within the profession. She describes how medical students learn to present increasingly complex narratives, thereby acquiring clinical competence and responsibility for patient care in the context of the clinical training hierarchy (22). She talks about performance as a core metaphor in presenting not only the health characteristics of the patients but also the thought process of the medical student themselves: hard work and responsibility are part of this performance (22). This performance and its constant recreation relates to how the medical student is judged. Her claims are consistent with Paul Starr's earlier description of power manifested as cultural authority: "Specialized knowledge and the resulting cultural authority is created by physicians' ability to interpret symptoms and signs, form a diagnosis, name a disease, and prescribe treatment" (23). This same concept was introduced by Michele Foucault when he says "the great break in the history of Western medicine dates precisely from the moment clinical experience became the anatamo-clinical gaze" (24). Physicians were apprentice doctors who completed their training in hospital under the supervision of the more experienced physician, by sitting at the bedside and then writing up detailed accounts of the case: "*Observing and speaking were key elements of medical education* and these functions within the medical clinic were regarded as both a science and a way of teaching medicine" (24) *[Italics added]*. Thus, the ability to identify and name a disease defines competence in Western medicine.

The characteristics of professionalism as recognized in society, as opposed to medical education settings, include altruism, autonomy, authority over clients, systematic knowledge, distinctive occupational culture, community and legal recognition**,** and protection of colleagues (11). The extent to which the protection of colleagues extends to learners is inadequately described in the medical or social science literature.

Methods

We used anthropological, ethnographic methods approved by the institutional review board. The ethnographic field site included locations where medical students and residents are socialized into the medical profession and included the hospital wards, the outpatient clinic setting, didactic lectures, and departmental meetings. To enhance understanding of multiple educational contexts, key informants were observed in the above social settings. For instance, the attending on the ward was also observed teaching in the clinic, etc.

Participant observation was used at an Internal Medicine Residency training clinic and hospital ward. During the participant observation, hand-written notes were obtained and later dictated and digitally transcribed. Four residents and one attending were observed for eight hours (two separate occasions) during preparation for rounds and during rounds. The senior staff and the senior resident of that same team each consented to ethnographic interviews (one hour each). The same attending physician was observed for a four-hour clinic session with two other residents not on the hospital ward team. The original four residents were observed with a different attending for another four-hour session. Additionally, a four-hour clinic teaching session was observed by a completely different attending with two more residents (total of eight residents and three attending physicians over 22 hours divided into seven sessions). In addition to these teaching sessions,

residents in large group settings were observed during a noon lecture (one hour) and during a rotational evaluation session (one hour) led by the three chief residents in the department. Hallway intercept interviews were obtained from six additional residents to obtain a free list of associations with "professionalism." A final interview with a senior resident was used to record a pile sort of the domain analysis of "professionalism." All interviews were recorded and transcribed.

Codes were developed from the themes in the literature as follows: Foucault initially described the phenomenon of "gaze" which incorporated a perceptual/cognitive phenomenon that resulted in assigning disease states to internal organs. For the purposes of this paper, this concept was divided into the perceptual aspects (**clinical gaze**—having to do with data) and the naming function (**diagnostic gaze**—having to do with the assignation to an organ). DelVecchio Good described **competence**, **hierarchy**, **clinical data** and performance in detail. In Starr's discussion of power, he talks about **autonomy**, **authority**, and **knowledge** as it relates to American medicine over the past thirty years. The single emergent code was **"computer"** because it was such a prominent feature noted within the field notes. The analytic codebook was derived from the above theoretical constructs (see: Figure 1).

Field notes and transcriptions of interviews were entered into ATLAS-ti 5.0 as primary documents. A query report was run for each code and the items in the report were double checked against the definition in the codebook. The excerpts that were verified were then used for frequency and content analysis within each code. The relationships between the codes were determined using the qualitative analytic software. Specifically, "hierarchy" was one of the most frequently coded variables in the data. The analysis began there, because this most closely related to the specific aim of characterizing power. This helped define the different roles within the hierarchical structure. The analysis then proceeded to analyze how they interacted, what they interacted about, and most importantly, how the hierarchical structure was maintained by these interactions. A natural segue from hierarchy was to characterize the variables "autonomy" and "authority." It was at this point that it became apparent that "gaze" was a key independent variable for power and the analysis thereafter focused on constructing its meaning. The codes were then analyzed from the bottom up in terms of the hierarchical structure—attempting to construct in detail how "gaze" was socially constructed. At this point, all the relationships between the variables related to power were defined and a graphic representation using Atlas-ti was constructed. The ability to graphically represent the data created the opportunity to verify that the relationships identified were internally consistent.

The unexpected results of this study provide evidence that objectivity was retained during the research project. Because the researcher was a medical professional as well as an anthropologist and naive to this particular residency setting, participants shared many personal life stories and were willing to criticize senior staff. Perhaps it was a combination of the anonymity, physician camaraderie, and the research atmosphere with embedded confidentiality made the residents feel safe.

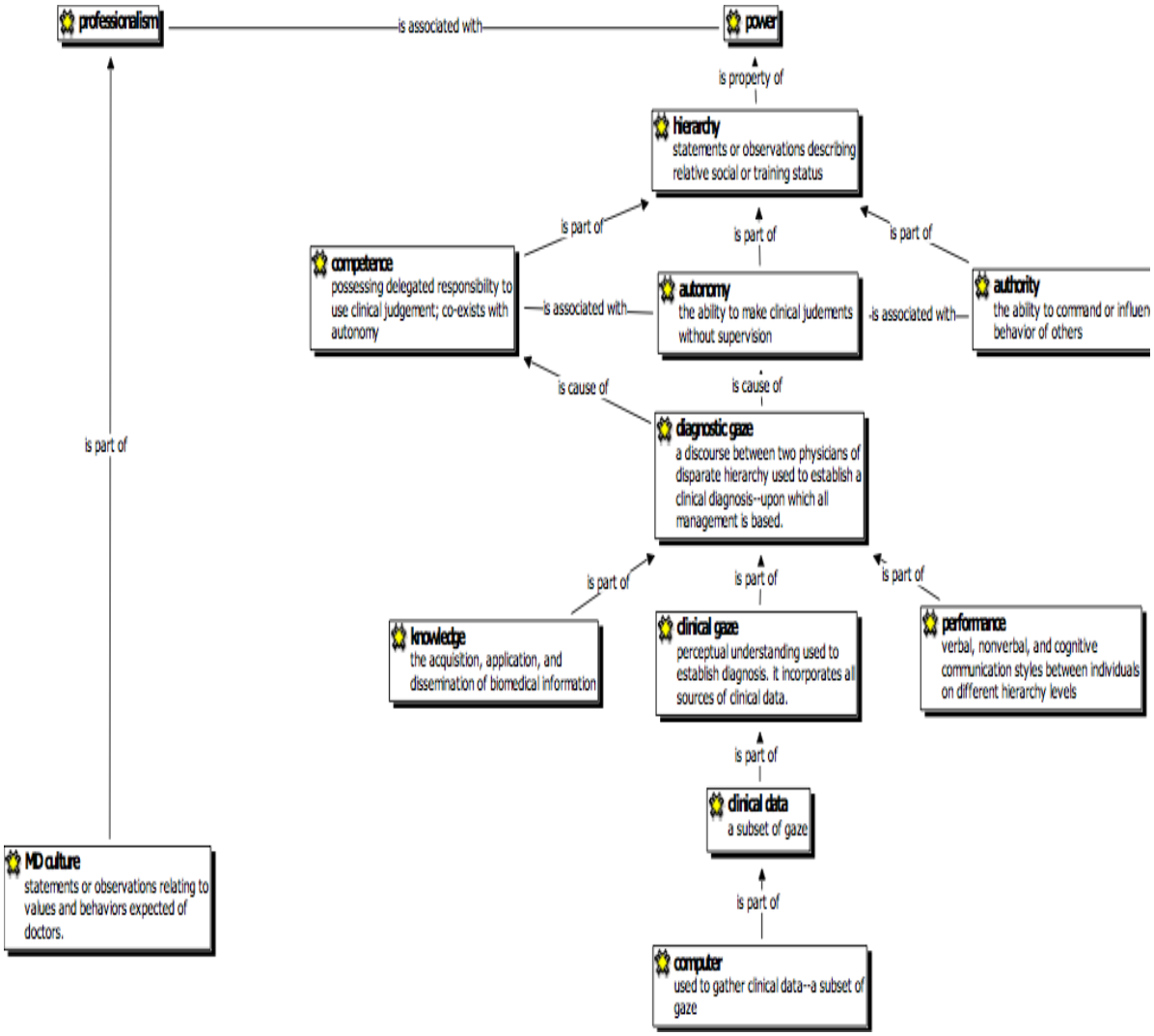

Figure 1: Schematic of relationships between variables

Table 1. Content Analysis—Exemplars of the Major Elements of the Variables

Variable	Major Elements (with frequencies)	Exemplars of Major Elements
Hierarchy	Giving power by inverting hierarchy (17)	"So uh, so who's running it? I think the residents should run it. And use consultants. And I'll step in if there's something that I don't agree with. I like the resident to…and I give them as much responsibility as I think they can handle…."
	Supervision (17)	The attending said, "did you go over certain things with the senior resident?" They then sat down and graphed the labs and the senior resident pointed out the 2 g drop in hemoglobin.
	Maintaining hierarchy by Teaching (9)	Resident 3 reiterated his own patient care management plan, "It was just one night that he didn't get the Coumadin." The attending then started discussing the difference between a deep vein thrombosis and pulmonary embolus regarding low molecular weight heparin. And the senior resident again quoted data and medical literature regarding the difference between the above. The attending summarized, "It's not generally accepted." The attending then made a statement saying, "We'll keep him." To which resident 3 replied, "Fair enough."
	Maintaining hierarchy with fear (6)	The chief resident then went on to say, "He'll take them off the rounding service and their evaluations won't count." By this she meant that if someone complained about a senior staff the Program Director would invalidate the evaluation of the resident by the senior staff. At this point there was a lot of audience participation. Some of the seniors said they were scared stating: "They will know there was only one senior."
	Symbolic maintenance of hierarchy (5)	The attending physician names are all at the left margin and the resident names associated with each attending are indented somewhat.
Authority	Giving commands or orders (15)	The senior resident sent resident 3 on an errand.

Autonomy	Non-supervised clinical judgment (12)	And the good thing about this hospital is that if you get an admission about 3pm, you are on call, you have the right to do anything you want with this patient without supervision and the senior staff will see the patient the next morning. You can call the staff if you have any problem, but if you don't think that you need to call the staff you can take care of the whole management for sixteen hours without any problem… you're not obligated to call the staff like they do in private, community hospitals.
Competence	Checking patients (7)	I think, first of all, making sure that there is no critical critically ill patient on the floor. By checking vitals, and just…very quickly making sure that everyone's OK.
Diagnostic gaze	Contested (7)	The two of them started sparring with facts regarding the diagnosis and resident said he didn't notice any vascular changes on exam. The attending said you don't need any changes to diagnose vascular problems. The attending, "I would like you to question him regarding positioning and symptoms." The resident then talked about no diabetes, no other problems, etc. The attending suggested possible alcohol consumption as the diagnosis for peripheral neuropathy.
	Negotiating (4)	In very civil discussions they were again negotiating management between the senior resident in the attending.
Clinical gaze	History and physical (7)	The attending then said he was interested in the congestive heart failure and said he wanted to examine the patient.
	Interrogating the resident (6)	The attending explored various differential diagnoses with the resident and the attending was interrogating the resident about color changes and possible Reynaud's by asking the questions in a very leading way.
Computer	Computer/clinical gaze (28)	All of the residents were looking at the screen and not the attending. She was flipping between laboratory data, different presentations of laboratory data, and x-ray films. She pulled up the film of the patient who had pulmonary congestion and she turned to resident 6 and told him, "You need to be aggressive to prevent this patient from being transferred to the ICU."

Performance	Eye contact (15)	Resident 6 was presenting. He made no eye contact whatsoever. He was reading off the chart. The attending initially started looking at the presenting resident but after a minute or two started flipping through the chart. Resident 6 still made no eye contact with any other members even though they were looking at him.
	Cognitive organization (8)	The resident then said, "I'm sorry I am disorganized."
	Ownership (4)	Resident 3 made a very long presentation and was able to hold everyone's attention for a long time. He was doing more interpretation of the data versus reporting the data and he concluded with, "My plan for him is *blah blah blah*." The attending replied, "very good.
Knowledge	Self education (7)	The resident said, "I looked it up in Up-to-Date." He was referring to asbestosis.

Results

Finding 1: The diagnostic "gaze" is a discourse between physicians of disparate hierarchy status used to establish a clinical diagnosis. It is the essence of power and creates and maintains a hierarchical structure throughout the medical education setting. Competence is a result of acquiring a diagnostic "gaze" and once achieved, results in autonomy and authority within the hierarchy. Competence can never be claimed but must always be bestowed by someone higher in the hierarchy.

Rounds start between 6:00 a.m. and 6:30 a.m. when the interns arrive and prepare for rounds by writing progress notes. This consists of sitting in front of computers and compiling clinical data that will be used by the team. The computers contain the laboratory results and radiology results, which are dutifully, copied onto the progress notes. The following field notes describe this basic, repetitive activity:

> Resident 3, resident 6 and resident 4 were all charting from the computers, trying to write their notes; each of them were sitting at one of the high-speed Dell® computers. Resident 4 was copying labs onto the progress notes and they were still sitting in front of the computers.

During this time when the interns are writing the notes, the senior resident is performing the same tasks in tandem; however, he doesn't have the burden of writing everything down in the specific format of the documentation template used in the hospital, so he can work quickly. He does have the added burden of supervision. From an ethnographic interview, the resident describes this time of day:

> The worst part is before the rounds, cause I, I don't like to be have limited time to do what I have to do. I don't want to look so… like I missed something, if I'm not prepared. So knowing that the staff will come at a certain time, this is like… but I have to do it, so, usually this time, this from six to eight I don't like this time because I have to make sure everything …this is really the most stressful …I think that 80% of the work of the day is in these two hours…

This is confirmed in the following excerpt from the field notes:

> All of the residents were looking at the screen and not the attending. She was flipping between laboratory data, different presentations of laboratory data, and x-ray films. She pulled up the film of

> the patient who had pulmonary congestion and she turned to resident 6 and told him, "You need to be aggressive to prevent this patient from being transferred to the ICU."

There were countless such episodes of data gathering with checking and re-rechecking by different members of the team during the observations. It illustrates a process by which clinical information is collected, organized, and presented. This entire process was described as the clinical "gaze". The word "gaze" is used because it allows the clinician to "***see***" what is going on inside the patient. It is the most important component of the next level of processing, the diagnostic "gaze".

Attending physicians depend on residents to perform these tasks. If they don't have confidence that it is being done consistently, it causes distress, as in the following example from an interview with an attending when asked to describe a bad resident:

> …. they lie, they tell you they've done things or examined things, or checked things that they didn't… that's the worst thing because I have a certain amount of trust in them and an assumption that they've talked to the patient, that they've examined the patient, they looked at the chart, they looked at the labs, so it's somebody who lies, …those are the days that I get here at 6:30 and I plow through the labs and all the X-rays.

The diagnostic "gaze" refers to the multitude of daily, sometimes minor negotiations amongst members of the team regarding the clinical status of the patient. In its ultimate form, it determines the diagnosis, upon which all management decisions are dependent. In the medical education setting, residents lower on the hierarchy earn the right to attempt to diagnose by being thorough and complete in collecting clinical data with the clinical "gaze". The diagnostic "gaze" must always be attempted within an appropriately supervised setting. This is the testing ground for advancement within the hierarchy. When a resident can consistently make the correct diagnosis, he or she advances. The following ethnographic excerpts illustrate how the diagnostic "gaze" is often negotiated between a resident and an attending:

- The resident stated that although he was seen in dermatology clinic within the last two weeks "he wasn't given anything." The attending replied, "It was mentioned Diprosone and Eucerin." (Contradicting the resident) The attending then suggested a possible diagnosis of excessive hand washing and the resident replied that the rash went up to the elbows, trying to imply that the diagnosis was not excessive hand washing.

- With regard to some aspect of fact, the attending said, "You didn't ask, so let's ask." The resident seemed taken aback at the statement because he was very quiet at this time. They seemed to argue back-and-forth in terms of establishing an actual diagnosis.

- The resident said, "I was right. He wasn't faking. He gets mad. He gets frustrated." He then went on to describe how the inpatient doctors called the patient drug seeking. The resident then said, "I was afraid I was going to be wrong, but he [the patient] wants to decrease his Oramorph® [narcotic] (disproving that the patient was drug seeking).

One attending described his perception of how residents learn the diagnostic "gaze" and described its importance:

> "Well, it's uh, I like to …my job is to help them think… learn how to think as an internist… my main question is, the most frequent question I'm going to ask you is, what do you think…the assessment, the plan. There are some doctors who just tell them, this is what you're going to do. I want them to start thinking like an internist. How do you put all these seemingly disparate facts together and form a nice numerical diagnostic list. Because once you make the diagnosis, you can look in a book to find the treatment. ***The diagnosis is the most important thing***."
> *[Italics added for emphasis]*

When the attending is confident the resident has acquired a diagnostic "gaze" the resident achieves autonomy, a form of competence, as illustrated by the following statement from an attending following a clinical presentation:

> The attending asked, "Do I need to see her?"

At this point, the resident can function without having someone higher in the hierarchy double-checking his/her clinical work. The residents relish this autonomy:

- I don't have to suck it up.
- I do what I think is double-checking… it's clinical judgment…just medical judgment.
- You can learn from your mistakes…you will learn how to take responsibility.
- I don't have a favorite part. I have a favorite time…when our boss isn't around.

After achieving the diagnostic "gaze," residents are deemed competent and given autonomy—the ability to make clinical decisions without supervision. Indeed, they become supervisors of more junior residents. As such, they are invested with authority—the ability to command or influence the behavior of others. They are responsible for management of the service.

In summary, the power structure within the medical education setting is structured by the diagnostic "gaze." It determines who makes the decisions and which management plan is enacted. The diagnostic "gaze" is a discourse, sometimes congenial, and sometimes contested. Yet, within the medical education culture, it is bestowed by someone higher in the hierarchical structure onto someone lower—never the other way around. Although the junior residents may identify the foibles of the attending physicians, they rarely challenge them.

The hierarchy established by the "gaze" is maintained in a multifold way, not least amongst them, fear. Consider the following excerpt from field notes of an evaluation meeting led by the chief residents discussing attending physicians who were late for rounds.

> The chief resident then went on to say, "He'll take them [the attending] off the rounding service and their evaluations won't count." By this she meant that if someone complained about a senior staff the Program Director would invalidate the evaluation of the resident by the senior staff. At this point there was a lot of audience participation. Some of the seniors said they were scared stating: "They will know there was only one senior."

These residents openly expressed fear of reprisal from someone higher in the hierarchy. The checks and balances needed to keep the system safe for learners are discussed in Finding 2.

Finding 2: The participants' description of professionalism contains the word "respect," an almost universally used word when residents describe physician interactions. Professionalism modulates the entire hierarchical structure and protects vulnerable individuals from harm due to potential misuse of power.

A resident identified the following attributes as most important to professionalism and "being a doctor". They include: respecting people no matter their relative position in the hierarchy.

> "Respecting people no matter their relative position. That's the most ….I can't believe I missed it…see, I guess the most important thing is, uh, is when somebody, when, I think you really know who a person is when you see how they talk to their subordinates. Doesn't matter if somebody's nice to, you know, the Chairman or, you know, the Program Director, you know…but if you're not nice to your subordinates I don't think you'll ever be a good doctor. Cause that reflects also… on your work with your patients, cause in essence, the patients are subordinate to you when you're in control of

> their health. And if you don't respect your subordinates, I don't think you'll succeed or you'll do a good job as a doctor. And I've seen that lacking a lot, you know. So that's the most important thing, let me say, so far…"

This informant states that misuse of power is commonplace but this previously unspoken fear has never been documented before in the literature related to professionalism in medical education. Professionalism as traditionally defined does not speak to protection against the misuse of power in the setting of hierarchical medical education. Instead, those lower in the hierarchy "suffer in silence" until achievement of attending physician status, which presumably provides protection. This is in essence the relationship between power and professionalism. It should be noted that although respect amongst individuals of any hierarchical status is valued, many residents report that they have witnessed disrespectful behaviors in teaching settings. These events are never challenged, which reinforces the hierarchical structure. Hierarchical advancement, with its advantages of autonomy and authority, is dependent on the acquisition of the "gaze".

The professionalism described here is very specific to the self-contained world of the medical education environment. Just as all politics is local, in this setting, the local issues of managing power structures dominate the residents' descriptions of professionalism, which to them appears to be a check and balance to the power of the hierarchy.

Discussion

This study was designed to understand the relationship between power, competence, and professionalism in a medical education setting. The findings confirm that power relationships are omnipresent within the setting in the form of hierarchy. Residents are socialized into this hierarchy, consistent with Durkheim's definition of "social fact" with its coercive nature on behavior as a result of education (25).

This study also confirms Foucault's concept of "gaze" and further characterizes it as the source of power within medical education; the discourse that occurs between members at various levels of the hierarchy further confirm Foucault's concept that power is established within a network of interpersonal relationships.

This study confirms DelVecchio Good's emphasis on competence as a source of power, but indicates that it is primarily a competence of diagnostic gaze. These concepts are closely linked in the current study, whereas she does not draw as tight a correlation in her work (22).

This study adds to our understanding of medical education culture in that it identifies a relationship between professionalism and its role in modulating the power structure. Concentrated power has the ability to help and harm. Withholding competence (credentials) or denying entry into the profession creates a tremendous insecurity and dependence amongst the residents. Physicians are human and their motivations and behavior can be influenced by personal gain. In order to prevent the misuse of the professional power and cause potential harm to a resident, a culture of professionalism creates a sense of protection. There is a delicate balance between protecting a trainee of the profession and protecting society from an incompetent physician. Medicine has been criticized for not being able to do the latter.

The limitations of the study include the relatively small ethnographic sample and insufficient observational data on residents' interactions directly with patients. Comparing it to other specialties and other programs would also have enhanced the study. The methodology employed—the combination of participant observation, ethnographic interviews, and textual analysis—worked well to answer the research question.

A practical implication of this research is to help devise curricula in professionalism as mandated by the American Council on Graduate Medical Education for all accredited residencies of all specialties. Residents are never taught explicitly how to manage hierarchy or how to recognize it in their work. Also, this research lays the groundwork to begin to measure "diagnostic gaze" by calling attention to critical thinking and the process of negotiation between participants of different hierarchical positions. This would allow an implicit process to become explicit.

Contributors

James P. Meza, M.D. Ph.Da, Wayne State University School of Medicine, Department of Family Medicine and Public Health Sciences, 3939 Woodward, Detroit, MI 48201, USA

Anthony Provenzano, M.D, The University of Vermont College of Medicine, The University of Vermont Medical Center, 111 Colchester Avenue, Burlington Vermont 05401

Appendix

Code Book

Authority "the ability to command or influence behavior of others"

Autonomy "the ability to make clinical judgments without supervision"

Clinical data "a subset of gaze"

Clinical gaze "perceptual understanding used to establish diagnosis. It incorporates all sources of clinical data."

Competence "possessing delegated responsibility to use clinical judgment; co-exists with autonomy"

Computer "used to gather clinical data--a subset of gaze"

Diagnostic gaze "a discourse between two physicians of disparate hierarchy used to establish a clinical diagnosis--upon which all management is based."

Hierarchy "statements or observations describing relative social or training status"

Knowledge "the acquisition, application, and dissemination of biomedical information"

Physician culture "statements or observations relating to values and behaviors expected of doctors."

Performance "verbal, nonverbal, and cognitive communication styles between individuals on different hierarchy levels"

Bibliography

1. van der Zwet J, de la Croix A, de Jonge LPJWM, Stalmeijer RE, Scherpbier AJJA, Teunissen PW. The power of questions: a discourse analysis about doctor–student interaction. Medical education. 2014;48(8):806-19.
http://dx.doi.org/10.1111/medu.12493

2. Martimianakis MA, Maniate JM, Hodges BD. Sociological interpretations of professionalism. Medical education. 2009;43(9):829-37.
http://dx.doi.org/10.1111/j.1365-2923.2009.03408.x

3. Birden H, Glass N, Wilson I, Harrison M, Usherwood T, Nass D. Defining professionalism in medical education: a systematic review. Medical teacher. 2014;36(1):47-61.
http://dx.doi.org/10.3109/0142159X.2014.850154

4. Brody H, Doukas D. Professionalism: a framework to guide medical education. Medical education. 2014;48(10):980-7.
http://dx.doi.org/10.1111/medu.12520

5. Wagner P, Hendrich J, Moseley G, Hudson V. Defining medical professionalism: a qualitative study. Medical education. 2007;41(3):288-94.
http://dx.doi.org/10.1111/j.1365-2929.2006.02695.x

6. MacLeod A. Caring, competence and professional identities in medical education. Advances in health sciences education : theory and practice. 2011;16(3):375-94.
http://dx.doi.org/10.1007/s10459-010-9269-9

7. Monrouxe LV, Rees CE, Hu W. Differences in medical students' explicit discourses of professionalism: acting, representing, becoming. Medical education. 2011;45(6):585-602.
http://dx.doi.org/10.1111/j.1365-2923.2010.03878.x

8. Chandratilake M, McAleer S, Gibson J. Cultural similarities and differences in medical professionalism: a multi-region study. Medical education. 2012;46(3):257-66.
http://dx.doi.org/10.1111/j.1365-2923.2011.04153.x

9. Hafferty F, Light D. Professional Dynamics and the changing Nature of Medical Work. Journal of Health and Social Behavior. 1995;35(extra issue):132-53.

10. Ritzger G, Walczak D. Rationalization and deprofessionalization of physicians. Cocial Forces. 1998;67(1):1-22.
http://dx.doi.org/10.1093/sf/67.1.1

11. Pesosolido BA, Tuch SA, Martin JK. The profession of medicine and the public: Examining Americans' changing confidence in physician authority from the beginning of the 'health care crisi' to the era of health care reform. Journal of Health and Social Behavior. 2001;42(1):1-16.
http://dx.doi.org/10.2307/3090224

12. Timmermans S, Angell A. Evidence-based Medicine, clinical uncerrtainty, and learning to doctor. Journal of Health and Social Behavior. 2001;42(4):342-59.
http://dx.doi.org/10.2307/3090183

13. Shrank W, Reed V, Jernstedt C. Fostering Professionalism in Medical Education. Journal of General Internal Medicine. 2004;19(8):887-92.
http://dx.doi.org/10.1111/j.1525-1497.2004.30635.x

14. Kaldjian LC, Rosenbaum ME, Shinkunas LA, Woodhead JC, Antes LM, Rowat JA, et al. Through students' eyes: ethical and professional issues identified by third-year medical students during clerkships. Journal of Medical Ethics. 2012;38(2):130-2.
http://dx.doi.org/10.1136/medethics-2011-100033

15. Gill D, Griffin A, Launer J. Fostering professionalism among doctors: the role of workplace discussion groups. Postgraduate medical journal. 2014;90(1068):565-70.
http://dx.doi.org/10.1136/postgradmedj-2013-132165

16. Lombarts KM, Plochg T, Thompson CA, Arah OA. Measuring professionalism in medicine and nursing: results of a European survey. PLoS One. 2014;9(5):e97069.
http://dx.doi.org/10.1371/journal.pone.0097069

17. Malakoff GL, Payne CL, Staton LJ, Kolade VO, Panda M. Accounting for professionalism: an innovative point system to assess resident professionalism. J Community Hosp Intern Med Perspect. 2014;4.
http://dx.doi.org/10.3402/jchimp.v4.23313

18. Nagler A, Andolsek K, Rudd M, Sloane R, Musick D, Basnight L. The professionalism disconnect: do entering residents identify yet participate in unprofessional behaviors? BMC Med Educ. 2014;14:60.
http://dx.doi.org/10.1186/1472-6920-14-60

19. Bourdieu P, Passeron J-C. Reproduction in Education, Society and Culture, Second Edition. London: Sage Publications; 1990.

20. Freire P. Pedagogy of the Oppressed. New York: Bloomsbury; 2013 [2000].

21. Morris RT, Sherlock BJ. Decline of ethics and the rise of cynicism in dental school. Journal of Health and Social Behavior. 1971;12(4):290-99.
http://dx.doi.org/10.2307/2137072

22. Good M-JD. American Medicine: The Quest For Competence. Berkely: University of California Press; 1998.

23. Starr P. The Social Transformation of American Medicine: Basic Books; 1982.

24. Foucault M. The Birth of the Clinic: An archeology of Medical Perception. New York: Vintage Books; 1973, 1994.

25. Durkheim E. What is a social fact. In: McGee RJ, Warms Rl, editors. Anthropological Theory. third ed. Boston: McGraw Hill; 2004.