The Physical Examination as Ritual
Social Sciences and Embodiment in the Context of the Physical Examination

Cari Costanzo, PhD\textsuperscript{a,*}, Abraham Verghese, MD, MACP, FRCP(Edin)\textsuperscript{b}

KEYWORDS
- Physical examination • Ritual • Physician-patient relationship • Embodiment
- Social Sciences and Medicine

KEY POINTS
- The privilege of examining a patient is a skill of value beyond its diagnostic utility.
- A thorough physical examination is an important ritual that benefits both patients and physicians; it helps to satisfy a patient’s elemental need to be cared for, and a physician’s need to make work meaningful.
- The concept of embodiment helps one understand how illness and pain further define and shape the lived experiences of individuals in the context of their race, gender, sexuality, and socioeconomic status.
- A sophisticated understanding of the importance of ritual in medicine, and of placebo effects, reaffirms the significance of the physical examination to the process of building strong physician-patient relationships.

INTRODUCTION

A skilled physical examination in response to a specific patient complaint can be diagnostically effective, allowing one to narrow the differential diagnosis, pluck the “low hanging fruit,” and come to a definitive diagnosis. However, in the present era, simple phenotypic observations such as café au lait spots, Horner syndrome, or breast masses are often missed due to a medical culture that does not teach or test bedside skills in the same way that cognitive knowledge is tested and assessed\textsuperscript{1}. Furthermore,
the physical examination remains underutilized and increasingly threatened by advances in diagnostic testing. As highlighted in the recent Institute of Medicine’s report on improving diagnosis in health care, simple oversights in the examination can lead to unnecessary and costly forms of medical error.2

The value of the physical examination in building and maintaining the physician-patient relationship is not often studied or discussed. It is telling, however, that patients’ complaints about physicians often include words that are revealing of their sense of the importance of the examination and the skill of the person conducting it: “the doctor never touched me!” or “the doctor never laid a hand on me!”3 The examination of a patient is an honored ritual of caring and healing; the privilege of touch is given to few other professions in society. The authors believe that the failure to connect with patients, the lack of meaningful time spent with patients, and the loss of critical rituals all add to the epidemic of disillusionment and burnout in the medical profession.

A 2016 literature review on the importance of the physical examination points to a disconnect in the medical and social science literature when it comes to the significance and value of the examination in clinical settings.3 For example, the simple practice of having a patient disrobe can result in feelings that one’s identity is being stripped away. The concept of embodiment, as understood through an anthropological lens, can help physicians appreciate anew the importance of the examination and widen its practice. Studies of the neurobiological effects of rituals at the bedside (setting, appearance, tone of voice) suggest that the notion of placebo without a placebo might well apply to the physical examination when it is done with skill and consideration.1

Finally, the rapid evolution of artificial intelligence (AI) and deep machine learning will change the landscape even further.4 AI has great potential to relieve some of what is burdensome in medicine, and it is hoped that if utilized well, and with intelligent input (ie, human intelligence before artificial intelligence, or HI before AI), it may allow for more meaningful patient time. However, certain vital expressions of empathy, understanding, and love remain a unique ritual between human beings, not humans and machines. Human-to-human rituals in medicine benefit not only patients; they also help to relieve the dysphoria and disillusion existing in a medical system that is often technology proficient but emotionally deficient.5–9

THE PHYSICAL EXAMINATION IN MEDICINE AND THE SOCIAL SCIENCES

In a 2016 literature review of the physical examination and the physician-patient relationship, Iida and Nishigori identified 1447 studies focused on the physical examination in both the medical and social science databases, selecting 205 studies for further review.3 They found that although most of the medical literature they reviewed valued the physical examination as a means of building and maintaining the patient-physician relationship, these positive assessments were largely based on opinion rather than quantitative data.3 Conversely, many existing ethnographic studies of the physical examination highlight the ways that patients often experience such examinations as invasive.3 These studies unveil power differentials, looking at ways that institutions within society maintain social hierarchies.10 Simple practices such as using the scientific language of medicine or turning one’s back toward a patient to type notes on a computer can feel alienating to a patient, driving a wedge between patients and their physicians. Furthermore, practices like disrobing to don a paper gown can literally strip a patient of his or her identity. What is clearly needed is more scholarship in this area to prospectively assess the importance of the physician-patient relationship. It is the authors’ belief that interdisciplinary studies using qualitative and
quantitative research methods will shed new light on this subject. The authors also believe that a strong theoretic framework embracing the concept of embodiment will yield a more robust understanding within medicine and the social sciences of the value of the physical examination.

EMBODIMENT

In the 1980s, the concept of embodiment became central to anthropological studies that examined the ways ideologies around sex, gender, and racial differences reinforced systems of oppression in society. The anthropological notion of embodiment rejects the mind/body binary and instead suggests that bodies—and what people think about their bodies—is contingent upon history, culture, and a politics of power. Within this framework, each person’s body is situated not only within the story of that individual’s life, but also in a larger narrative about how social and political structures have created obstacles or opportunities for different types of bodies in the world. Colonialism, for example, has led to both visible and invisible hierarchies around skin color that have shaped disparate paths for different racial groups in society. The notion of embodiment, therefore, allows one to look holistically at humans in the wider social and political context in which each life is lived. Applied to medicine, the concept of embodiment helps one understand how illness and pain further define and shape the lived experiences of individuals in the context of their race, gender, sexuality, and socioeconomic status.

In a *Companion to the Anthropology of the Body and Embodiment*, Nora Jones encourages readers to think not only about the embodiment of the patient, but also the embodiment of the various stakeholders in medicine. She offers a tripartite framework that looks at (1) the patient’s body as seen by the practitioner, (2) the generalized ill or diseased body found in popular culture, and (3) the patient’s understanding of his or her own body. Jones refers to this tripartite framework as the body as specimen, spectacle, and patient, respectively.

In an interdisciplinary undergraduate course the authors teach for freshman (many of whom are premedicine), Jones’ tripartite framework is used to encourage students to think about what it means to be an embodied human in the modern world. The ability to read the body provides a wider view of the soma than is characteristic of a usual physical diagnosis course. The ability to read the body is, of course, at the center of the physical examination, shaping the way one thinks about individual identities, as well as the future of medicine.

However, even the way a skilled clinician reads the body is never entirely objective; rather it is shaped through the lens of culture at particular moments in history. Culture therefore informs and distorts how one discerns, accepts, rejects, and analyzes one’s body. It affects the ways people experience illness, gendered and racialized identities, sexuality, perceptions of beauty, and rights (or lack of rights) to control their own bodies. Some of the fundamental questions that arise when the body is viewed in this fashion are issues of ownership and autonomy (as in the separation of conjoined twins, or a growing surrogacy industry in which poor women in developing nations serve as surrogates for families in developed nations); perceptions of beauty, masculinity and femininity; stigmatization by race and morphology; and limitations that the current gender binary poses for the wider spectrum of lived gender identities, such as transgender or gender fluid.

It is necessary and helpful for medical students and physicians to be reminded of and understand the intersections of identities, and to explore their own cultural
biases. For example, in a diverse society, it is not possible to care for, or be a pro-
vider who is, a person of color without some deep understanding of how colo-
nialism has led to a hierarchy around skin color in American society, and that
hegemony and power often operate in subtle ways to naturalize which types of
bodies and identities are entitled to social and political power. The ghost of Tuske-
gee lingers in the minds of many patients and physicians. Approaching the bedside
examination as an important ritual that embraces embodiment within a wider social,
cultural, and political history is imperative to building trust between patients and
physicians.

THE RITUAL OF THE PHYSICAL EXAMINATION

A ritual typically signifies a rite of passage, the crossing of a threshold, or a sacred
event that is marked in contrast to events that are either quotidian or profane. For de-
cades, anthropologists have identified codes of practice that mark rituals as transfor-
mative or timeless.9,14–18 Rituals such as baptism or marriage signify both a sacred
event, and a transition in one’s social status. So too does the physical examination
mark a highly ritualized event. Similarly, a physical examination may also mark a first
step toward the crossing of a threshold from sickness to health.1

The authors believe the physical examination can be read as a ritual for several
reasons:

a. A physical examination typically occurs in a specific, symbolic setting (a doctor’s
office that contains specialized furniture—namely an examination table—not found
in other quotidian or nonmedical spaces).

b. Symbolic tools such as a stethoscope or reflex hammer may be used during a
physical examination.

c. The identities and actions of those involved in the ritual remain constant.

One party in the ritual is either a physician, nurse practitioner, or physician assistant,
often in a white coat, who lays his or her hands on the patient. The other participant,
despite his or her social position (eg, as a homemaker, a software engineer, or a
teacher)—dons a neutralizing gown to assume the role of patient. Of course, this
potential power imbalance requires extreme diligence on the part of the physician in
order to gain and maintain trust with each patient. Disrobing and allowing touch are
markers of vulnerability; it is therefore imperative that physicians approach the phys-

ical examination attentively and compassionately in order to preserve the embodied
identity of their patients.

Furthermore, like all rituals, the ability to pass knowledge from one generation to
another—the ability to continue the art and practice of the physical examination—
requires hands-on training, or, in effect, an apprenticeship.1 Efforts such as Stanford
25 training are designed to systematically focus on technique and skill, and impart
satisfaction in gaining skill and expanding repertoire.19 Within medicine, an attending
physician guides physicians-in-training at the bedside in order to impart such knowl-
dege. The result of this apprenticeship is twofold; (a) it ensures the survival of the ritual
of the physical examination, and (b) it results in the actual patient as the center of
attention, rather than focusing on digital images and scans of the patient on a com-
puter, referred to elsewhere as the iPatient.20 Maintaining the centrality of actual
physician-patient interactions is vital to the well-being of patients. Studies in the field
of placebo effect are demonstrating that everything that surrounds a pill, such as rit-
uals, symbols, and doctor-patient encounters may in fact have positive neurobiolog-
ical effects on patients.21
THE PLACEBO EFFECT AND THE PHYSICAL EXAMINATION

Studies of placebo—Latin for “I shall please”—have yielded interesting results in pain-drug clinical trials in the last 20 years. In 1996, 27% of patients reported pain reduction from a new drug compared with placebo, but in 2013, that number dropped to only 9%, and not because the drugs were less effective, but because the placebo effect is growing rapidly in the United States. Furthermore, studies of placebo show that it is not just a pill that can have a positive effect; “different social stimuli such as words and rituals of the therapeutic act may change the chemistry and circuitry of a patient’s brain.” Conversely, there can be a nocebo effect, where negative expectations may in fact make a patient feel worse. Essentially, studies of both placebo and nocebo effects demonstrate that the psychosocial context around patient therapy, such as the ritual around the therapeutic act, can have an effect on the biochemistry of a patient’s brain. A well-administered physical examination, for example, can make a patient feel better, while an inferior examination can have a deleterious effect on a patient. Studying the neurobiological effects of the physical examination—treating the physical examination itself as a type of placebo without placebo can help one better understand the importance of the physical examination on the well-being of patients.

Working with 262 randomized patients in a 3-week trial to test the effects of warmth and empathy on patients with irritable bowel syndrome, Kaptchuck and colleagues found that “factors such as warmth, empathy, duration of interaction, and the communication of positive expectation might indeed significantly affect clinical outcome.” Although many studies have shown that social influence affects what people think about a product, Alia Crum in Stanford’s Psychology Department conducted a study that tested participant response to uncaffeinated spring water and discovered that social influence can affect people’s physiologic reactions to products as well. Crum’s research points to the ways that mindset can have an enormous impact on health outcomes.

Crum, Leibowitz, and Verghese argue that placebo effect is “no longer a mysterious response to a sugar pill, but the scaffolding of psychological and social forces—the support system—on which the total effect of treatment rests. Knowing this, we can move beyond merely asking how a treatment compares with a placebo and begin to ask more useful questions such as what are the components driving placebo responses and what can we, as patients and providers, do to more effectively leverage these components to improve healthcare?”

JOY IN PRACTICE AND MEANING IN THE EXAMINATION

Physician burnout is at an all-time high, reaching epidemic proportions as a result of a changing health care system marked by financial pressures, an increased expectation in productivity, the intensified clerical burden required to manage electronic health records (EHR), and new regulatory requirements and levels of scrutiny. This has led to a reduction in meaningful time physicians spend with patients. In order to find increased joy in practice, physicians need to feel that the work they are doing is in fact meaningful. In a 2013 study published in the Annals of Family Medicine, Sinsky and her colleagues visited 23 high-performing primary-care practices that supported both quality of care and physician work-life balance, looking for factors that brought meaning into their work. Sinsky and her research team found that physician fulfillment “is tightly related to the organization of the practice environment, including relief from paperwork and administrative hassles, the opportunity to form meaningful relationships with patients, and the ability to provide high-quality care to patients.”
physicians seek ways to climb out of the massive well of disillusionment and burnout, rituals such as the physical examination—a process that strengthens the physician-patient relationship and adds meaning and joy in practice, will become even more central.

Although advances in AI can automate some processes, perhaps relieving what is burdensome in medicine, it is important that the very aspects of medicine that bring joy and meaning to practice will be retained by human doctors. New AI software might allow machines to recognize certain emotions in human faces, but workers with high emotional skills will remain in high demand.

**SUMMARY**

The privilege of examining a patient is a skill of value beyond its diagnostic utility. At a time when technology and advances in medicine paradoxically threaten these simple skills, it is important to continue dialogue and research on the value of the focused physical examination. In addition, the aspects of the examination that transcend the usual medical focus—embodiment, identity, power dynamics, symbolism of locating the disease on the body as opposed to on an image or a pathology slide—are as important as ever. At a time when physicians are increasingly disillusioned and experiencing burnout more than ever before, finding meaning is critical, and for most clinicians, it is the interaction with human beings that imparts this meaning. A sophisticated understanding of the importance of ritual in medicine, and of placebo effects, is reaffirming. The authors believe the ritual, when done with skill and consideration, helps satisfy a patient’s elemental need to be cared for, and a physician’s need to make work meaningful.

**REFERENCES**

12. Jones N. BIOETHICS: embodied ethics: from the body as specimen and spectacle to the body as patient. In: Mascia-Lees FE, editor. A companion to the anthropology


19. Available at: https://stanfordmedicine25.stanford.edu/.


