Published in final edited form as:

J Eval Clin Pract. 2008 October ; 14(5): 656–659. doi:10.1111/j.1365-2753.2008.01043.x.

EBM:

Evidence to practice & practice to evidence

Carol A. Isaac, PhD, PT and

Center for Women's Health Research, University of Wisconsin- Madison, 700 Regent Street, Suite 301, Madison, WI 53715-2364, Phone: (608) 263-9770, Fax: (608) 265-6423, cisaac@wisc.edu

Amy Franceschi, PT, CCCE

Shands Hospital at the University of Florida, 1600 SW Archer Rd, Gainesville, FL 32610, Phone: (352) 265-0295, Shipmac@shands.ufl.edu

Abstract

The purpose of this paper is to explore new perspectives about difficulties academicians may have communicating with clinicians, obtaining subjects, and gaining compliance for their research. Sackett et al¹ defined evidence-based medicine (EBM) as an integration of best research evidence, clinical expertise, and patient values. However, Guyatt et al² places clinical observation and experience last in the evidence hierarchy with the randomized controlled trial held as the standard for clinical intervention. The hierarchical discourse of medical knowledge produces opposition rather than collaboration between researcher, clinician, and patient. Foucault gave new perspectives describing how power circulates through individuals within organizational discourse.³ Drawing on literature and experience, this paper describes how the hierarchical model of power in the research community obstructs new areas of knowledge, and how clinicians create resistance. Alleviating perceptions of dominance and creating connections produces cohesion within medical communities.

Keywords

evidence-based medicine; epistemology; clinician; power; Foucault

Introduction

The evidence-based medicine (EBM) movement which advocates that all decisions be based on quantitative research findings stimulates debate between researchers and clinicians regarding the position of clinical expertise and patient values. Healthcare providers who are proponents of EBM may “convince themselves to mistrust or suppress qualitative knowledge as unreliable” and dismiss the “soft” concepts of practice in lieu of EBM’s practical standards of evidence.^{4(p188)} Foucault described these power/knowledge practices that produce systems of normalcy and deviation, suggested that individuals do not hold power but are vehicles of power which circulates within organizational discourse.⁵ While evidence-based medicine (EBM) attempts to normalize and regulate knowledge/power production, the hierarchical model may be usurped by the resistance of individuals rejecting the empirical, modernist practice of EBM. Instead, using a framework based on postmodern theoretical concepts, this paper examines patterns of discourse, subjectivity, resistance, and power/knowledge within the physical therapy profession.

Patients suffer from illnesses that arise from an interconnected network of cultural and biological processes. Medicine is commonly accepted as a combination of art and science; however, biomedical professionals focus on a rationality to control the disorder created by the illness.⁶ When considering the epistemology of what is knowledge, the postulates of

objectivism claims that the knower can stand apart from what is known (i.e. diagnosing lung cancer) while subjectivism considers that the knower and the known are interdependent and their values shape what is understood (patient's pain treated with medications).⁷ Sackett et al⁸ defined EBM as an integration of best research evidence, clinical expertise, and patient values. These criteria of evidence seem to be within the boundaries of all scientific research; however, evidence-based medicine (EBM) has created a hierarchical discourse of knowledge that produces polarities creating opposition rather than connection between researcher, clinician, and patient.

Medical practice has been driven by three major factors: "the presence of marked variation in treatments (implying lack of knowledge and hence lack of value); the increasing cost of healthcare; and the improvement in our ability to measure and analyze outcomes."⁹ (p299) For modernist, empirical researchers, there is a "real reality out there"¹⁰ (p176) that has great faith in the ability of reason to discover absolute forms of knowledge. The practice of medicine seeks a reality that is uncontaminated by human flaws whose representation is culminated by the evidence-based movement.

In contrast, **postmodernism** "refuses all semblance of the totalizing and essentialist orientations of modernist systems and thought. . . . Instead of representing clarity, wholeness, and continuity, postmodernism is committed to ambiguity, relativity, and fragmentation."¹¹ (p185) A postmodern theoretical position denies the existence of foundational knowledge on the grounds that "no knowable social reality exists beyond the signs of language, image, and discourse."¹² (p39) This position confounds the medical community and creates instability where patients' welfare and faith in medical practice depends on a reality uncontaminated by human flaws.

The introduction of human ideologies and inconsistencies abstracts absolute forms of knowledge. Within a subjective understanding, the reader of the text is the creator of meaning¹³; thus, people form their own interpretation of the text based on their own experiences, perceptions, and expectations. To the patient-consumer, "perception is reality," and the frightening colloquialism to medical practitioners that "happy patients don't sue" can confound evidence-based practice. This epistemological duel between the modern and postmodern discourse in medical practice is driven by the aura of surveillance and accountability in the reality of reimbursement and funding.

Discourse and Subjectivity

In applying the postmodern concepts of discourse and subjectivity to medicine, we can see how these concepts can expand and contribute to theoretical perspective. **Discourse** "has a constituent role in the production of the symbolic systems that govern human existence."¹⁴ (p101) Furthermore, these symbolic systems are ordered "through our linguistic description."¹⁵ (p47) How our text describes the world creates our discourse.

To understand **subjectivity** is to understand that discourses systematically form the objects of which they speak.¹⁶ (p70) Therefore, a man or woman who becomes a clinician or researcher is shaped or subjectified by that discourse. For example, a physical therapist treats back pain with therapeutic interventions while a physician treats with pharmacological or surgical interventions. Each patient comes to practitioners with previous experiences creating a discourse of belief in a surgical cure as opposed to those who seek alternative solutions; they believe what they seek and seek what they believe. Individuals will seek to protect their interests within the discourse from which they come. Clinicians must document well to advocate for patients' needs as well as to receive proper reimbursement, and researchers must undertake

projects that meet publishing goals to sustain an academic career. Researchers as well as clinicians must follow the rules of their discourse within their basis of knowledge.¹⁷

However, “failure” stimulates individuals to look outside their discourse. Enduring practices confront the dangerous illusion of conventional scientific method that concludes that the world is much simpler than it truly is, thus enlarging the discourse. This “practice of failure” transforms, “impossibility into possibility where a failed account occasions new kinds of positioning.”^{18 (p3)} Evidence of public dissatisfaction with conventional medicine’s failure to treat chronic disease includes the estimate of expenditures of \$36 billion to \$47 billion on complementary and alternative medicine therapies in 1997.¹⁹ Patients’ preferences and values become evidence in this context as integrated into the definition of EBM.

In clinical practice, clinicians seek to gain knowledge of all disciplines’ treatment plans/options so that they can expand their knowledge, but also educate the patient and reinforce other disciplines’ education and therapies. For example, for a burn patient, physical therapists focus on stretching and wound care, but also smoking cessation, nutritional intake, and compliance with medications. While these are not within our “scope of practice,” we attempt to expand the patient’s discourse. This is particularly important because other disciplines may never actually get to see the patient due to reimbursement limitations. Most experienced practitioners via Lather’s “practice of failure”²⁰ are aware of other avenues, and will admit the limitations of their discipline and refer the patient for other potential solutions. These practices expand the discourse and lead to new areas of research.

Power/knowledge and Resistance

Since the Eighties, the predominate discourse of neoliberalism advocates that existing institutions “adapt: more career-oriented courses; greater emphasis on applied research and development; planning for technology transfer and knowledge diffusion; greater accountability and responsiveness of institutions; increased productivity and efficiency.”^{21 (p3)} In this climate of accountability, performance becomes a kind of ideology in the “discourse of quality.”^{22 (p62)} Administration and faculty are being driven to greater accountability, efficiency, and productivity as never before and need to protect their own interests within that discourse. However, clinicians are not isolated from this discourse of quality as insurance companies rely on research evidence for reimbursement.

For Foucault, “relations of force and power are involved at every level of a discursive formation;...because **knowledge** is always a form of **power**.”^{23 (p101)} As Foucault suggests, there is an interdependence of power and knowledge; what counts as knowledge is the relative power of those who claim it; and one of the “mechanisms of power are those of repression.”^{23 (p91)} There are rules within a discourse concerning who can make statements and in what context, and these rules “exclude some and include others.”^{24 (p186)} Frances Conley, a Stanford neurosurgeon, wrote that medicine “remains an institution of rigid hierarchies--almost an archetypal patriarchal society.”^{25 (p4)} The everyday world of physicians is shaped around a “rigid hierarchy of authority and power.”^{26 (p103)} As clinicians, we know there are things unspoken and unwritten to those in power to protect our referral sources as well as to advocate for patients’ needs.

Many healthcare providers regard clinical practice as an art where uncertainty falls between medical science and practice. The “‘evidence gap’ between *de jure* and *de facto* medicine is filled by ‘clinical judgment’... and are frequently seen in domains collectively referred to as ‘orphaned fields of medicine’... such fields include medical psychology, psychotherapy, physiotherapy, and occupational health.”^{27 (p301)} In our community of physical therapy practice, the knowledge of clinicians is filtered by the positivist discourse of the academic community. The daily concerns of clinicians in regard to solving patients’ problems where

“happy patients don’t sue” are relegated to the “ontological basement.”²⁸ (p15) The powerful academic community delineates what is reality and unreality and could become a mechanism of repression.

The hierarchy of medical knowledge thus reproduces existing inequalities; however, Foucault asserts that all people have the capacity to resist. Foucault depicts power as not an object to seize, but a network of forces where power always meets with resistance.²⁹ Foucault thought that the “subject actually functions as a pocket of resistance to established forms of power/knowledge.”³⁰ (p230) The less powerful “find innumerable, creative, even powerful ways to resist inequity” and struggle to “negotiate, struggle, and create meaning of their own.”³¹ (p21) In our practice, resistance is represented by clinicians who do not read professional journals, do not take the time to understand the statistical analysis and professional jargon, and not participating with or finding subjects for research. Resistance persists as long as dominance persists, and interactions between people is a complex play of conscious and unconscious thoughts, feelings, fears, and needs on the part of both that cannot be categorized.³²

There is more evidence of the breakdown of this hierarchical structure. In the internet age, patients are becoming informed, self-advocates. JCAHO mandates documentation of patient involvement as an integral, active part of the team, not just a passive recipient of care. The patient and caregiver are active participants in the formulation of their care plans from education to treatment decisions to discharge planning. As an example from our own practice, rehabilitation fundamentally assesses and assists with patient independence which focuses on discharge planning and directly impacts the financial resources of a medical system. In the real world of acute care, the nurse is the true gate keeper of a patient’s care, and they as well as therapists present an aggressive role to the physician the need for medication changes, lines to be removed, and other patient needs.

In response to the traditional power/knowledge structure, individuals show resistance through education (e.g. nurse practitioners) so as to function more autonomously and independently from the physician. A second resistive response is to avoid interaction or quietly circumvent the mandates of a particular physician while advocating for the patient’s interest. This hierarchical network of power stimulates the subject, whether clinician or patient, to function as a pocket of resistance which can present as a “simultaneous process of accommodation and resistance.”³³ (p289) In this way, power becomes multidimensional and multidirectional.

Finally, the gold standard of the EBM movement, the randomized controlled trial, meets failure in the clinical realm in terms of the value of one patient’s life. In certain cases, the validity/reliability arguments that plague qualitative researchers of the generalizability of an “n of 1” become mute. As Merriam claimed, “quite a bit can be learned from an N of 1.”³⁴ (p59) The impossibility of evidence becomes a matter of practitioner trustworthiness. In this case, a patient’s reality becomes the priority, and where application of statistically-based generalizations becomes moot. Even Cronbach reported that empirical generalizations are difficult in the area of social science because “generalizations decay,” and are a “working hypothesis, not a conclusion.”³⁵ (p122-125) EBM meets failure as the public rejects even one adverse event that results in tragedy. The power of the randomized controlled trial is diluted in practice.

The nature of power can be described using different language and strategies. For Foucault,

Power must be analyzed as something that circulates, (...). It is never localized here or there, never in anybody’s hands, never appropriated as a commodity or piece of wealth. Power is employed and exercised through a net-like organization. And not only do individuals circulate between its threads; they are always in the position of

simultaneously undergoing and exercising this power. They are not only its inert or consenting target; they are always also the elements of its articulation. In other words, individuals are the vehicles of power, not its points of application. ³⁶ (p98)

Individuals do not hold power, but power resides within an organization of relationships within the discourse. Foucault used the term “discourse” as an inclusionary/exclusionary system to help us understand how we are positioned as subjects which creates our relative power in each discourse. As differences in discourse spark conflict, and all people have the capacity to resist, power is passed back and forth within the hierarchy from researcher/practitioner/patient depending on the context. While power in the Western tradition stratifies readily into the hierarchy, we can recognize the circular nature of power. There is a circular expansion/contraction and inclusion/exclusion of power that exists within every professional community.

The purpose of this paper is to illustrate the revolving relationship of power. In place of an oppressive hierarchy, the emphasis is on the contextual interaction between individuals and organizations. This blurring of modernist and postmodern practices does not sustain an emancipatory movement; however, the goal of this discussion is to open the dialogue within the boundaries of epistemologies. The complexity of healthcare cultivates repeated failure. Over the course of years of experience, the boundaries blur into practices that “do not exist in opposition but in mixture.”³⁷ (p264) Evidence to practice and practice to evidence redefines EBM as a circular integration of best research evidence, clinical expertise, and patient values. Resistance to the hierarchical discourse broadens medical knowledge and produces mixture and collaboration rather than opposition between researcher, clinician, and patient.

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