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Abstract

Title: Evidence to practice & practice to evidence: An exploration of the circular in evidence-based medicine

The purpose of this presentation is to highlight the ways evidence-based medicine (EBM) normalizes and regulates (Foucault) knowledge/power production. Sackett et al (2000) defined EBM as an integration of best research evidence, clinical expertise, and patient values. However, Guyatt et al (2002) places clinical observation and experience last in the evidence hierarchy with the randomized controlled trial held as the standard for clinical intervention. Drawing on the literature and past managerial experience, this presentation describes how the hierarchical model is usurped by the circular, rejecting the predominant modernist practice in EBM. Foucault (1976) suggests that individuals do not hold power but are vehicles of power which circulates within organizational discourse. The hierarchical discourse of medical knowledge produces polarities creating opposition rather than mixture between researcher, clinician, and patient. However, resistance persists as long as dominance persists, and the less powerful find innumerable and creative ways to resist the predominating discourse.

The evidence-based medicine movement advocates that all decisions be based on quantitative research findings and has stimulated debate regarding the position of clinical expertise and patient values in the hierarchy. Healthcare providers who are proponents of EBM may “convince themselves to mistrust or suppress qualitative knowledge as unreliable” (Henry, 2006, p.188). These practitioners may attempt to dismiss the “soft” concepts of practice in lieu of EBM’s narrow conception of evidence. These practices create Foucault's "discursive formation," which are “homogeneous fields of enunciative regularities” (Foucault, 1972/2002, p. 117), and this power/knowledge assumed by people produce concepts of normalcy and deviation. However, Foucault (1976) suggests that individuals do not hold power but are vehicles of power which circulates within organizational discourse. The purpose of this presentation is to highlight the ways evidence-based medicine (EBM) normalizes and regulates (Foucault) knowledge/power production. Drawing on the literature and past managerial experience, this paper describes how the hierarchical model is usurped by the circular, rejecting the predominant modernist practice in EBM, and to examine patterns of discourse, subjectivity, resistance, and power and knowledge through a poststructural lens.

Medical positivist epistemology 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” (Cahana, 2005, p. 299). For modernist or positivist researchers, there is a "real" reality "out there" (Denzin & Lincoln, 2000, p. 176), and this reality is to be uncontaminated by human flaws. Modernism 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.

However, **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, fragmentation, particularity, and discontinuity. . . . One is the antithesis of the other” (Crotty, 1998, p. 185). Adopting a postmodern theoretical position involves denying the existence of foundational knowledge on the grounds that no knowable social reality exists beyond the signs of language, image, and discourse” (Hargreaves, 1994, p. 39). This position confounds the medical community and creates instability where patients’ welfare and faith in medical practice depends on a reality uncontaminated by human mistakes.

The introduction of human ideologies abstracts absolute forms of knowledge through the concept of subjectivism. In subjectivism, “meaning does not come out of an interplay between subject and object but is imposed on the object by the subject” (Crotty, 1998, p. 9). The reader of the text is the creator of meaning (Crotty, 1998); thus, people form their own interpretation of the text based on their own experiences, perceptions, and expectations. In this way practice confronts the dangerous illusion of conventional scientific method that concludes that the world is much simpler than it truly is, thus enlarging the textual representation (Denzin & Lincoln, 2000). To the patient-consumer, this is represented by the phrase, “perception is reality,” and the frightening colloquialism to medical practitioners that “happy patients don’t sue.” The duel between the epistemologies of objectivism and subjectivism in medical practice is driven by the aura of surveillance and accountability in the modernist reality.

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 the understanding of evidence-based medicine. **Discourse** is an intersubjective phenomenon, where discourse "is not a direct product of subjectivity and has a constituent role in the production of the symbolic systems that govern human existence" (Macey, 2000, p. 101). Foucault (1977/1980) uses the term 'discourse' to help us understand how we are positioned as subjects in different relationships with others. This understanding of the way we are positioned is dependent on our relative power in each discourse. Furthermore, these symbolic systems are ordered "through our linguistic description" (Mills, 2004, p. 47). 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 (Sarup, 1988, p. 70). Therefore, a man or woman who becomes a clinician or researcher is shaped or subjectified by that discourse. Subjectivity refers to "the conscious and unconscious thoughts and emotions of the individual, her sense of herself and her ways of understanding her relation to the world" (Weedon, 1997, p. 32). Individuals see what they have been trained to see as a physical therapist treats back pain with therapeutic interventions or a physician treats with pharmacological or surgical interventions. This discourse includes the patient who believes in a surgical cure as opposed to those who seek alternative solutions; they believe what they seek and seek what they believe. The individual will seek to protect their interests within the discourse from which they come. Researchers as well as clinicians must follow the rules of their discourse in order to drive their vehicles of power through the surveillance of knowledge.

However, “failure” stimulates individuals to look outside their discourse. In this way, 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 textual representation (Denzin & Lincoln, 2000). This “practice of failure” transforms, “impossibility into possibility where a failed account occasions new kinds of positioning” (Lather, 1996, p. 3).

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, therapists focus on stretching and wound care, but also educate on smoking cessation, nutritional intake, and compliance with medications, etc. While these are not within our “scope of practice,” we try to act as an advocate for other professions and expand the patient’s discourse, thus enlarging the textual representation. This is particularly important in light of the fact that often the other disciplines may never actually get to see the patient due to “cracks” in the system or limits of reimbursement. Most “experienced” therapists via the “practice of failure” are aware of alternative therapies, and will admit the limitations of physical therapy and refer the patient to other potential solutions.

These kind of practice blurs the boundaries thus expands the discourse.

Power/knowledge and Resistance

Since the Eighties, the predominate discourse of neoliberalism advocates “policies promoting privatization, consumer sovereignty, user-pays, self-reliance, and individual enterprise, as the solution to all economic and social ills” (Peters, 2001, p.316). Higher education is not exempt from these trends. The Organization for Economic Cooperation

and Development's (OECD) publication, *Universities Under Scrutiny*, recommended 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" (1987, p.3). Henry Giroux (2001) describes the new hidden curriculum of higher education as the "creeping vocationalization and subordination of learning to the dictates of the market" (p.34). In this climate of accountability, performance becomes a kind of ontology in the "discourse of quality" (Luke, 2001, p. 62). Lyotard (1979/1984) called this institutional representation "performativity." Administration and faculty are being driven to greater accountability, efficiency, and productivity as never before. Researchers' success within the academic system seek to protect their interests within the discourse from which they come.

For Foucault, "relations of force and power are involved at every level of a discursive formation;...because **knowledge** is always a form of **power**" (Macey, 2000, p. 101). As Foucault suggests, there is an interdependence of power and knowledge; what counts as knowledge is the relative power of those who claim it; one hypothesis of power is that the "mechanisms of power are those of repression" (1977/1980, p. 91). There are rules within a discourse concerning who can make statements and in what context, and these rules "exclude some and include others" (Craib, 1992, p.186). In her book, *Walking Out on the Boys*, Frances Conley, a Stanford neurosurgeon, wrote that "medical school is and remains an institution of rigid hierarchies--almost an archetypal patriarchal society" (1998, pg. 4). The everyday world of physicians is shaped around a "rigid hierarchy of authority and power" (Hinze, 2004, p. 103).

The differences in discourse spark conflict. The “theoretical paradigm of difference is obsessed with the construction of identities rather than relations of power and domination, and concentrates on the effect of this difference...” (Gordon, 2001, p. 189). Medical education thus reproduces existing inequalities through replicating a modernist reality; however, Foucault asserts that all people have the capacity to resist oppression. If the definition of knowledge is expanded to include others’ voices, then it is to be expected that such new knowledge will include a **resistance** to the formerly accepted knowledge claim (Grogan, 2003). Foucault thought that although the subject is affected by **knowledge** and **power**, it is “irreducible to these,” so the “subject actually functions as a pocket of resistance to established forms of power/knowledge, in the present age” (Alvesson & Skoldberg, 2001, p. 230). These insights “... warn us to expect conflict, and, secondly allow us to question taken-for-granted assumptions, particularly about the implications of local policies and practices” (Grogan, 2003, p.20).

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” (Cahana, 2005, p. 301). In our community of physical therapy practice, the knowledge of clinicians is filtered and denigrated 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.” (Martin, 1985, p. 15). The powerful academic community delineates what is reality and unreality and is a mechanism of

repression.

In response to this effect of knowledge and power, the subject functions as a pocket of resistance to established forms of power/knowledge. In our practice, this could be represented by physical therapists who do not read professional journals, or who do not take the time to understand the statistical analysis and professional jargon. Other acts of resistance include not participating with or finding subjects for research. The less powerful “find innumerable, creative, even powerful ways to resist inequity” (Weiler, 1988, p. 21). Weiler reports that “individuals are not simply acted upon by abstract ‘structures’ but negotiate, struggle, and create meaning of their own” (p. 21). This response is like the interview process where Scheurich replaces the binary between “us” and “them” with an open-ended post-modern third space he calls “chaos.” Resistance persists as long as dominance persists, therefore “the aims of the researcher may not be met by the participants” (Scheurich, 1995, p. 248). 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-- no stable “reality” can be represented (p. 249).

In the traditional healthcare system, when patients question practitioners, they can be labeled as difficult, despite the fact that practitioners expect patients to participate in their care. The hierarchical hospital system fosters an expectation for patients to be compliant and dependent, the underlying notion being that patients who ask questions tend to hinder their care and are likely not knowledgeable enough about medical practice to pose legitimate questions in the first place. Compounding this situation is the pressure within the system to carry out doctors’ orders. This reflects a deference to authority and the pyramid-like hierarchical structure of healthcare, in which the most educated and

highest paid member—the physician—is located at the top of the hierarchy and therefore is the most trusted and respected. The traditional medical education continues this cascade of power where the attending physician dictates to the residents, and then in turn the residents exploit the medical students. The individual is shaped or subjectified by that discourse, and the discursive formations are replicated..

While the everyday world of physicians is shaped around a “rigid hierarchy of authority and power” (Hinze, 2004, p. 103), there is 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- no longer a passive recipient of care. The patient and caregiver are active participants in the formulation of their care plans and that they are involved in every aspect of care 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. Because of this aspect, most occupational and physical therapists are respected for their assessments and recognized for their knowledge and expertise on the team. In the real world, we all realize that the nurse is the true gate keeper of an acute care 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 needs to progress the patient and prepare them toward discharge.

Organizations compartmentalize themselves into a bureaucracy that are rigidly segmented and centralized and resemble an arborescent hierarchical system which discipline and control the appendages (or divisions) attached to it. In response to the

traditional power/knowledge structure, individuals show resistance by learning more so as to function more autonomously and independently from the physician. When the second author worked fulltime with the transplant team, most of the nursing staff respected her knowledge base at the same level as the physician extenders on the team. A second resistive response to the traditional power/knowledge physician/dictator, is to avoid interaction or quietly circumvent the mandates of that 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" (Anyon, 1983, Cited in Weiler, 2003, p. 289). In this way, power becomes multidimensional and multidirectional.

The nature of power in poststructuralism 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. (Foucault, 1976, p. 98).

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. The rules within a discourse are contextual and “exclude some and include others” (Craib, 1992, p.186). 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 discourse. The roles researchers, clinicians and patients assume produce the concepts of normalcy and deviation. While power in the Western tradition segments readily into binaries, power in poststructuralism examines the circular nature of power. There is a circular expansion/contraction and inclusion/exclusion of power that exists within organizations.

Poststructuralism thus illustrates the revolving relationship around power. In healthcare, the researcher, clinician, and patient “do not exist in opposition but in mixture” (St. Pierre, 2000, p. 264). In place of an oppressive hierarchy, the emphasis is on the contextual interaction between individuals and institutions. One problem associated with poststructuralism involves a complicated view of power because its nature can be detrimental to the social politics of resistance. This view of politics of difference is not "oppositional in contesting the mainstream..." (St. Pierre & Pillow, 2000, p. 67). Poststructuralists do not focus on a simple hierarchical view of oppression but where individuals dissolve into “a sea of meaningless differences, nothing stable and secure will remain upon which a politics of resistance can be built” (St. Pierre & Pillow, 2000, p. 64). This blurring of modernist and postmodern practices does not sustain an emancipatory movement; however, the goal of discussion is to open the dialogue between the boundaries.

The complexity of healthcare cultivates repeated failure. In the analysis of the

“practice of failure” transformed, my “impossibility into possibility where a failed account occasions new kinds of positioning” (Lather, 1996, p. 3). Over the course of years of experience, the binaries blur into spaces that “do not exist in opposition but in mixture” (St. Pierre, 2000, p. 264). Evidence to practice and practice to evidence redefines EBM as a circular integration of best research evidence, clinical expertise, and patient values. Individuals do not hold power but are vehicles of power which circulates within organizational discourse. Resistance to the hierarchical discourse broadens medical knowledge and produces mixture rather than opposition between researcher, clinician, and patient.

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