UBM Medica Psychiatric Times

Psychiatric Times. Vol. 28 No. 12

Can Psychiatry be Both A Medical Science and A Healing Art? The Case for Polythetic Pluralism

By Ronald W. Pies, MD | 19 de octubre de 2011

"Not everything that can be counted counts; and not everything that counts can be counted." —Albert Einstein

"The practice of medicine is an art, not a trade; a calling, not a business; a calling in which your heart will be exercised equally with your head." —William Osler

When I was a first-year resident, a revered supervisor of mine made the statement—half-facetiously—that "in psychiatry, you can do biology in the morning and theology in the afternoon!" That remarkable claim not only intrigued and inspired me—it also became a kind of North Star in my own professional orientation, for the next 30 years. But amidst the intense and sometimes internecine conflicts that rage around and within psychiatry today, I think it is time to reexamine my supervisor's observation. At the very least, it may be useful to use it as a kind of lens, through which recent arguments about psychiatry may be viewed.

The dilemma faced by the psychiatric profession may be epitomized in 2 e-mails I recently received, both from very well-respected, senior psychiatrists. Senior Clinician #1 is well known in the area of mood disorder classification and in applying the "medical model" and biological subtyping to various forms of major depression. He wrote me in reference to my recent essay "Misunderstanding Psychiatry . . . ," in which I disputed the claim that psychiatric diagnosis does not make use of objective "signs," as in general medicine.[1] He opined that ". . . psychiatry has rejected the medical model of diagnosis in medical practice" and that the DSM system merely ". . . looks at the list of symptoms and their duration, rejecting [physical and laboratory] examination verifying tests and the validation of treatment responses."

Senior Clinician #2 argued nearly the opposite point of view, opining that psychiatric residents these days are ". . . being inadequately educated, with an emphasis on . . . [a materialistic] or . . . so-called medical model." Senior Clinician #2 represents an existential-humanistic approach to psychiatry that seeks to understand the whole person in the context of his or her environment. For him, psychiatry is primarily a "healing art," not a branch of neuroscience. He argued that psychiatry needs to recognize and realize its true nature ". . . before the field becomes unnecessary and obsolete."

Can both these respected clinicians be right? Has psychiatry really abandoned the "medical model" (whatever that means)? Does the present DSM framework enshrine or ignore this so-called medical model? Has psychiatry become too focused on neuroscience and "materialist" (usually termed "physicalist") models of psychopathology, to the detriment of holistic understanding of the person? Or is the real problem our abandonment of the biomedical model in favor of a kind of promiscuous eclecticism? Can our profession ever hope to overcome all these antinomies and develop an Einsteinian, "unified field theory" of psychiatric illness? How might such a unified theory partake of both "biology" and "theology," to return to my

supervisor's observation? Obviously, this essay can do no more than sketch some very tentative answers to these questions—but here goes.

First of all, what do psychiatrists and other physicians mean by the "medical model"—also called, the "biomedical model"?

Mosby's Medical Dictionary (8th ed) defines the "medical model" as

". . . the traditional approach to the diagnosis and treatment of illness as practiced by physicians in the Western world since the time of Koch and Pasteur. The physician focuses on the defect, or dysfunction, within the patient, using a problem-solving approach. The medical history, physical examination, and diagnostic tests provide the basis for the identification and treatment of a specific illness. The medical model is thus focused on the physical and biologic aspects of specific diseases and conditions." [2]

In this sense, the last two DSMs can hardly be seen as exemplars or instantiations of "the medical model." As McHugh and Slavney[3] point out, DSM-III was primarily interested in *enhancing diagnostic reliability* —essentially, agreement on diagnosis among observers—and *not* in establishing the biological validity of any condition. Nor have biological factors been a central (or even a peripheral) part of DSM criteria from DSM-III to the expected DSM-5. So it would be wrong to characterize the DSMs as exemplars of "the medical model" or of "biological psychiatry," as many commentators often claim. Notice, by the way, that there is nothing inherent in this dictionary definition of the medical model that precludes careful attention to the patient's *verbal account* of what is wrong, or that "encourages a view of the patient as a machine."[4] These misattributions become important when we consider Dr Nicolas Kontos's[5] argument, below, concerning the "biomedical Straw Man."

Rather remarkably, *Mosby's Medical Dictionary* goes on to note that

"Nursing differs from the medical model in that the patient is perceived primarily as a person relating to the environment holistically; nursing care is formulated on the basis of a holistic nursing assessment of all dimensions of the person (physical, emotional, mental, and spiritual) that assumes multiple causes for the problems experienced by the patient. Nursing care then focuses on all dimensions, not just physical."[2]

This is actually an extraordinary statement, and I'll come back to it when I introduce the concept of "polythetic pluralism"—but on its face, this description of the "nursing model" ought to give every physician pause, particularly psychiatric physicians. Another reason to reconsider the "medical model" is the politico-rhetorical "baggage" this term has acquired in recent decades, as public disenchantment with medical diagnosis—and particularly, psychiatric diagnosis—has grown. Consider this claim from a UK Web site, advocating for the disabled:

"Under the medical model, disabled people are defined by their illness or medical condition. They are disempowered: medical diagnoses are used to regulate and control access to social benefits, housing, education, leisure and employment."[6]

"Straw Man" or not, similar claims about the medical model have been voiced by various advocacy groups—and many psychiatrists—highly critical of psychiatric diagnosis and practice. These critics usually use the term "reductionistic" in speaking of the medical model, with the implication that ordinary emotions and "problems in living" are being increasingly and inappropriately "medicalized."[7]

Yet it was the psychoanalyst and internist, Dr George Engel,[8] who most prominently called attention to the reductionist nature of the traditional medical model, and who called for a new approach—one that would ". . . include the psychosocial without sacrificing the enormous advantages of the biomedical approach." It should also be noted that "reductionism" in psychiatry is not confined to those who advocate either a *DSM-*

categorical approach or a strictly biomedical approach. As Dr Glen Gabbard[9] has observed, "Both [psychoanalysts] and their patients secretly are drawn to simple formulations that eschew complexity." Reductionism, in short, is an equal-opportunity habit of mind.

To be sure, Engel's biopsychosocial model (BPSM) has come in for pointed criticism in recent years. Some, like Dr Nassir Ghaemi,[10] have argued that the BPSM has led to a sort of mishmash of treatment approaches, in which the psychiatrist adds "a little of this and a little of that" (my phrase, not Ghaemi's) to the treatment mix, without basing the decision on rigorous evidence. And, in a thoughtful critique, Kontos has argued that Engel himself created a kind of "Straw Man," by mischaracterizing the biomedical model, eg, as one that effectively discourages dialogue with the patient and "encourages a view of the patient as a machine." Kontos [5] persuasively argues that promulgation of this "Straw Man" model has led to the misperception that ". . . most physicians are purposefully complicit in efforts to promote inadequate patient care." Indeed, this is a charge often leveled against psychiatrists who supposedly adhere to this bowdlerized version of the medical model.

A complete discussion of the BPSM is beyond the scope of this essay. Nevertheless—while acknowledging both deficiencies in and misrepresentations of the model—the BPSM at least represented an attempt to move psychiatry toward a humane and holistic approach to the patient. It seems to me that Engel must be given substantial credit for this, regardless of his own mischaracterizations of biomedicine or the misapplication of the BPSM by some clinicians.

I have already noted that the DSM framework does not exemplify the medical model as defined above. Ironically, the DSM approach manages to achieve the "worst of both worlds": it does not adhere to a robust form of the biomedical model, but *neither does it provide a rich, coherent existential-phenomenological basis for understanding the patient's psychology.* There are very few diagnostic criteria in DSM that help explain anything important about the inner world of the emotionally disturbed individual. (For a sense of what I mean, I recommend Silvano Arieti's[11] magisterial description of the inner world of the patient with schizophrenia.)

This "worst of both worlds" quality of DSM has a curious analogy in psychiatry's present predicament. As many critics have observed—reference Senior Clinician #1—the typical psychiatric practice today puts little emphasis on such traditional biomedical concerns as the physical and neurological exam, neuroendocrine measures, and the use of validated assessment instruments. (How many psychiatrists, these days, perform even a rudimentary neurological exam on a new patient? How many check the patient's pulse or blood pressure when monitoring medication side effects?) On the other hand, the inexorable pressure to constrict the therapeutic "hour" and eschew psychotherapy means that we have been less able to pursue the more subjective and humanistic elements of our calling.

Perhaps underlying this predicament is the continued ideological divide that has bedeviled psychiatry for decades and that was eloquently described in Tanya Luhrmann's[12] classic book *Of Two Minds.* Very roughly put, Lurhmann described the dueling models of biomedical science and pharmacotherapy, on the one hand, and psychodynamics and psychotherapy, on the other. Thus, psychiatry seems to be trapped in a conceptual dilemma—in part, of its own making—akin to what the philosopher Ludwig Wittgenstein termed, "the fly bottle." If so, how does psychiatry escape "the fly bottle"? Put another way*: how does psychiatry maintain itself as a science-based, medical discipline while also remaining a humanistic, healing art?*

Polythetic pluralism

In an important essay brought to my attention by Dr Sara Hartley, the psychoanalyst Harry Guntrip[13] explores the concept of a "psychodynamic science." In the process, Guntrip goes on to anatomize a number of terms, such as "physical science," "natural science," "material science," and "mental science." He also alludes to a "science of human experience." All these terms, of course, share the designation "science," and it

seems we must pause to offer at least a rough, notional definition of what that term may mean. Unfortunately, this turns out to be a complicated and controversial enterprise, perhaps best left to philosophers![14] For purposes of this essay, however, I will define a "science" as *any discipline that studies some aspect of the world by means of repeated, systematic observations and investigations; constantly attempts to validate and invalidate its own hypotheses and theories; and which accords a high value to the replicability, reliability, and validity of its findings.*[15]

The term "scientific" is thus closely related to the term "objective." In so far as a discipline carries out such systematic, empirical investigations, and demonstrates that its findings have good "inter-rater agreement," the discipline is engaging in an "objective" activity.[16] This point holds, even when the discipline's "object of investigation" is the *patient's subjectivity*. This, indeed, is a tenet of some types of phenomenological psychiatry, such as that of Karl Jaspers. Jaspers regarded phenomenological psychiatry as an "empirical" and descriptive process.[17] Neurology and psychiatry share this dual, "objective/subjective" dimension; for example, the sensory exam in neurology ". . . relies on a patient's subjective report and is therefore prone to additional variability."[18]

Now, Guntrip makes the following critical points. First, he warns us of the "false antithesis between a scientific and a human approach" to the patient. Thus, Guntrip[13] observes that "a surgeon can be capable of sympathy with his patient, however objectively and impersonally scientific he is in his medical theory and practice."

Just so! How, then, can psychiatry be both medical science and healing art? I believe the way forward is via what I call "polythetic pluralism." "Polythetic" refers to several *shared characteristics,* none of which is essential for membership in a particular class. "Pluralism" refers to the use of several *different models*, approaches, or methods, not all of which may be appropriate in any given situation—the best model or method being dependent on the evidence supporting it and the facts at hand. Thus, the model of psychiatry I have in mind is characterized by *the use of several different approaches to diagnosis and treatment, sharing some features in common, no one of which defines the "essence" of psychiatry.* In this sense, I fully agree with Kontos's conclusion that " . . . the complexity of contemporary medicine is such that it cannot be served by just one model at either the macro (ie, scientific and clinical) or micro (ie, within clinical) levels." So much for airy abstraction—how might polythetic pluralism work in clinical practice?

Consider Ms Thumos, a 34-year-old single woman who complains of "terrible, lifelong, depression" that has worsened in the past 6 months. The patient's mother died when she was only 4 years old, and she was raised "an only child" by her father, an emotionally detached man who spent little time with his daughter. The patient describes herself as "severely shy," with few friends or social contacts and as "lonely most of the time." Her family history is positive for a maternal grandmother and 2 uncles with severe major depression. The patient recently lost her job as a computer programmer and has experienced increasing fatigue, weight gain, constipation, and lethargy over the past 4 months. She also complains of "feeling cold all the time," despite adequate heat in her apartment. A physical examination showed slightly delayed ankle jerk (Achilles reflex), but findings were otherwise normal. However, laboratory studies revealed a TSH level of 15 mIU/L (normal, < 10 mIU/L), with normal T_3 and T_4 levels.

No single "model" of medical or psychiatric diagnosis adequately "explains" Ms Thumos's depression, in my view. Her family history suggests a strong genetic diathesis for major depressive disorder (MDD); the loss of her mother at an early age is also a risk factor for subsequent development of MDD.

From an object relational standpoint, the patient's emotionally distant father may have further impaired her ability to form a positive sense of self, which, in turn, may have led to her pathological shyness and social avoidance. Her lack of close friends may have contributed to her lifelong depression, which may now be exacerbated by recent unemployment, and subclinical hypothyroidism. *Comprehensive* p*sychiatric treatment of Ms Thumos must consider all these psychodynamic, interpersonal, and biological factors*. Our treatments,

however, must reflect the *best available evidence for the particular disorder (or disorders) in question*—and that is quite different from throwing "a little of this, and a little of that" at the patient, thereby misapplying George Engel's teachings.

Psychotherapy, perhaps of the interpersonal type, could be very helpful to Ms Thumos. But the best available evidence would suggest that correction of her thyroid problem should be the first step in caring for the patient, in that depression is not likely to respond optimally until underlying hypothyroidism is adequately treated.[19] If the patient's depression persists despite euthyroid status and psychotherapy, then antidepressant treatment may be warranted. (Incidentally, in my own practice, I would typically prescribe the thyroid hormone in cases such as that of Ms Thumos, usually in consultation with an endocrinologist.) So, in a sense, the holistic psychiatrist must indeed be prepared to do biology in the morning and theology in the afternoon!

Conclusion

In my view, psychiatry should not aim to be a "physical science" or a "natural science"—but neither should it confine itself, in Cartesian fashion, to being a "mental science." Psychiatry ought to be both a *medical science* and a *healing art*—and must find a way to embrace and meld elements of both. Psychiatry should be a medical science in so far as it studies conditions of health and disease; adheres to the best available controlled evidence; and uses the tools of "objective" medical practice, such as laboratory studies and brain imaging. At the same time, psychiatry should be a healing art, in so far as it concerns itself with the intimate subjectivity and "inner world" of the patient. There is no incompatibility or conflict between these complementary realms: "molecules" and "motives" are simply two lenses through which we view one and the same human condition.

What I am describing is akin to what Ghaemi[20] describes as the "biological existentialism" of Karl Jaspers. And—although some physicians may chafe at this—the model I am proposing is also close in spirit to the "nursing model" described above: ie, "a holistic . . . assessment of all dimensions of the person (physical, emotional, mental, and spiritual) that assumes multiple causes for the problems experienced by the patient." However, as Kontos commented to me (personal communication, October 12, 2011), this putative "nursing" model really represents the qualities found in all good *physicians*, independent of any theoretical "model" of medical care and treatment.

Albert Einstein once observed, "The intuitive mind is a sacred gift and the rational mind is a faithful servant. We have created a society that honors the servant and has forgotten the gift." In order for psychiatry to escape the "fly bottle" in which it now finds itself, we must bring together the intuitive and the rational mind. And we must do this not in service of a theory or ideology, but in the service of reducing suffering and enhancing the quality of life for our patients.

Acknowledgments—I would like to thank Nicolas Kontos, MD, for his helpful comments on an early draft of this paper; and Sara Hartley, MD, for referring me to the paper by Dr Harry Guntrip. I also wish to thank Max Fink, MD, and Melvin Gray, MD, for their important insights into psychiatric diagnosis and practice.

References

1. Pies R. Misunderstanding psychiatry (and philosophy) at the highest level. *Psychiatr Times.* 2011;28(9):1, 4-6. www.psychiatrictimes.com/display/article/10168/1945693. Accessed November 4, 2011.
2. *Mosbys Medical Dictionary.* 8th ed. 2009. http://medical-dictionary.thefreedictionary.com/medical+model. Accessed October 19, 2011.
3. McHugh PR, Slavney PR. *The Perspectives of Psychiatry.* Baltimore: Johns Hopkins University Press; 1986.

4. Engel GL. The clinical application of the biopsychosocial model. *Am J Psychiatry.* 1980;137:535-544.
5. Kontos N: Perspective: biomedicinemenace or straw man? Reexamining the biopsychosocial argument. *Acad Med.* 2011;86:509-515.
6. The Open University. Medical model. http://www.open.ac.uk/inclusiveteaching/pages/understanding-and-awareness/medical-model.php. Accessed October 19, 2011.
7. Frances A. Good grief. *New York Times.* August 14, 2010. www.nytimes.com/2010/08/15/opinion/15frances.html. Accessed October 19, 2011.
8. Engel GL. The need for a new medical model: a challenge for biomedicine. *Science.* 1977;196:129-136.
9. Gabbard GO. Bound in a nutshell: thoughts on complexity, reductionism, and infinite space. *Int J Psychoanal.* 2007:88(pt 3):559-574.
10. Ghaemi SN. The rise and fall of the biopsychosocial model. *Br J Psychiatry.* 2009;195:3-4.
11. Arieti S. *Interpretation of Schizophrenia.* 2nd ed. New York: Basic Books; 1974.
12. Luhrmann TM. *Of Two Minds: The Growing Disorder in American Psychiatry.* New York: Random House, Inc; 2000.
13. Guntrip H. The concept of psychodynamic science. *Int J Psychoanal.* 1967;48:32-43.
14. Okasha S. *Philosophy of Science: A Very Short Introduction.* New York: Oxford University Press Inc; 2002.
15. Carroll BJ. Diagnostic validity and laboratory studies: rules of the game. In: Robins LN, Barrett JE, eds. *The Validity of Psychiatric Diagnosis.* New York: Raven Press, Ltd; 1989:229-244.
16. Sen A. *Objectivity and Position.* Lindley Lecture Series. Lawrence, KS: University of Kansas; 1992.
17. Wiggins OP, Schwartz MA, Jaspers K. In: Embree L, Behnke EA, Carr D, et al, eds. *Encyclopedia of Phenomenology.* The Hague: Kluwer Academic Publishers; 1997. Karl Jaspers Forum, Note 90. www.kjf.ca/N90-SCH.rtf. Accessed November 7, 2011.
18. Rosenfeld J, Martin RA, Bauer D. Numbness: a practical guide for family physicians. http://www.aan.com/familypractice/html/chp3.htm. Accessed October 19, 2011.
19. Pies RW. The diagnosis and treatment of subclinical hypothyroid states in depressed patients. *Gen Hosp Psychiatry.* 1997;19:344-354.
20. Ghaemi SN. Existence and pluralism: the rediscovery of Karl Jaspers. *Psychopathology.* 2007;40:75-82.