Review Article

Psychotherapy and its Role in Psychiatric Practice: A Position Paper. I. Psychiatry as a Psychobiological Discipline

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Economic, political, and ideological landscapes have impacted the practice of psychiatry throughout its evolution as a medical discipline. Despite enormous scientific advances over the course of the past century, many psychiatrists continue to operate with a split Cartesian picture of mind versus brain and entrenched ideological positions ranging from biological "chemical imbalance" to rigidly followed manualized psychotherapy approaches, both of which frequently result in fractured clinical care. With the impact of systemic economic and political pressures in Canada and the United States, the attention to the doctor-patient relationship has taken a back seat to high-volume practices, computerized assessment tools, and the focus on evidence-based treatments for behaviorally defined syndromes in the *Diagnostic and Statistical Manual of Mental Disorders* that often come at the expense of the patient's experience of his or her illness. We spend much time teaching the next generation of psychiatrists what to prescribe versus how to prescribe; what manualized treatments to administer versus questioning *why* our patients engage in dysfunctional patterns of thinking, feeling, and relating to others, and what impact these patterns may have on their interaction with us in the here-and-now of the treatment setting. In this paper, we propose an integrative psychobiological model, in which biological interventions carry personal meanings, and relational transactions in the treatment setting are a form of learning that results in lasting physiological changes in the brain. Psychiatry needs to reconnect with its roots as a science of attachment and meaning, in which attention to the objective, subjective, and relational domains of the patient-provider experience is equally foundational for any successful treatment outcome.
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From Canada come 2 guest articles that present the model of an integrated psychobiological, intersubjective approach to the treatment of psychiatric disorders. The authors' argument is in the tradition of wise physicians over the centuries who have emphasized consideration of the whole patient as a person. But now there is abundant scientific evidence that "mind" and "brain" are inseparable aspects of a unitary entity, and that psychotherapy and biological treatments inevitably affect both aspects. This paper elaborates that concept and surveys the evidence for it; the second paper, to appear in the July 2016 issue of this journal, will present the evidence in greater depth. In recent decades, our understanding of the traditional doctor-patient or therapist-patient relationship has deepened to account for the unconscious elements of a continuous interplay between 2 whole human beings who both have a complex subjective life. This view, called "intersubjectivity," replaces a view of the psychiatrist or therapist as the objective, detached expert who administers a standardized treatment for a diagnosis. Psychobiological therapy is now recognized as

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a multi-layered engagement between 2 human beings, in which their subjective lives affect each other within a therapeutic framework designed to be conducive to beneficial change.

Notable is the report that, even in a national health system such as Canada's that provides care for all of its people, current administrative and clinical practices interfere with the integrated, person-oriented approaches that are most effective for complex, persistent psychobiological disturbances.

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The relationship of psychotherapy and psychiatry has been a tumultuous one. The pendulum of biological versus psychosocial treatments has swung widely over the last 120 years since the discovery of the "talking cure." The early hope for a scientifically based "neurology of the mind"[1] gave way to an emphasis on the classical psychoanalytic framework, sometimes to the exclusion of emerging findings from evolutionary biology, infant development, and the newly developing disciplines of affective, cognitive, and social neuroscience. With the advent of humanistic, gestalt, cognitive-behavioral, and relational schools, the spectrum of psychotherapy approaches today has ballooned to over 500,[2] sometimes practiced without clear data for their efficacy or specific indications for their use. Many of these therapy schools similarly eschewed developments in neuroscience, perpetuating a "brainless mind" approach to patient care and deepening the schism between biological and psychosocial aspects of psychiatric treatment.

On the other hand, the advent of psychopharmacological modalities since the 1950s has served to shift the emphasis of psychiatry toward biological interventions, with a proliferation of pooled statistical data to inform individual patient care. Mental illness is increasingly seen as an aberration or "chemical imbalance" in the brain that could be corrected by psychopharmacological agents, electroconvulsive therapy, and, more recently, deep brain and repetitive transcranial magnetic stimulation. Although these therapeutic modalities are important and some of them have demonstrated therapeutic efficacy in specific conditions, the patient's unique developmental history and experience of his or her illness too often take a back seat to the symptom-driven diagnostic categories of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) classification.[3] Since the 1980s, biological psychiatry, with its reductionist "mindless brain" metaphor of patient care, has also become the predominant model in academic psychiatry training, further deepening the divide between biological and psychotherapeutic schools of thought.

Economic stresses in public health funding in Canada and the advent of "Managed Care" in the United States have put the therapeutic aspects of the doctor-patient relationship under mounting pressure, with psychiatrists increasingly being forced into the role of psychopharmacology consultants, providing brief (10 to 20 min) "expert" interviews (med-checks) in the name of cost-efficiency. A Canadian article advocating this approach was recently published in the Globe and Mail,[4] where the authors proposed redefining the role of psychiatrists and suggested that, "Psychiatrists provide diagnostic assessments and treatment recommendations; other mental health professionals such as psychologists and social workers provide psychotherapy and other front-line treatment." They reference the American, British, and Australian systems in which "psychiatrists are limited to rapid, high-volume psychiatric drug consultation." This brings up the specter of a conveyor-belt approach to patient care, in which spending more time with our patients to understand and address their experience of mental illness becomes a dispensable luxury.

Psychiatry today is at a crossroads. Increasingly, we have to defend the very foundation of our field as a biopsychosocial discipline—the treatment provider's relationship with his or her patient and attention to the patient's subjective experience of his or her illness.[5] We are witnessing an unprecedented proliferation of generic manualized treatments, both in psychotherapeutic and psychopharmacological domains, which are validated to target shifting DSM syndromes rather than the human beings who suffer from them. Psychiatrists increasingly operate high-volume practices and rely on computerized tools or allied health professionals to gather information about their patients in response to pressures to reduce waiting lists or satisfy the demands of third-party agencies. Increasingly, our patients are treated as a "commodity" that has to be efficiently

"processed" to minimize health care costs or increase the profit margin. Despite the emphasis the Canadian Royal College of Physicians places on biopsychosocial orientation in psychiatric treatment and training, and the statement by the United States Accreditation Council on Graduate Medical Education that integrated psychotherapy/psychopharmacology is a core competency area,[6] the languages of biological and psychotherapeutic psychiatry remain as far apart as ever.

The purpose of this 2-part series of articles is to review the evidence showing that psychotherapy is a form of biological intervention that induces lasting structural changes in the brain, its efficacy equal to and often exceeding that of psychopharmacological modalities. Conversely, there is increasing evidence that patient expectations and experience of treatment and the quality of the doctor-patient relationship are crucial factors that contribute to medication response in all treatment settings.[7] Paying attention to how, not just what, to prescribe, and combining psychotherapeutic and psychopharmacological modalities can improve treatment outcome and adherence, and tends to be more effective than either treatment alone.

Above all, we would like to open up a debate on the very definition of psychiatry as a scientific discipline that focuses on the patient's unique *psychobiology*, where his or her experience of mental illness and treatment is given equal priority to "objective" physical symptoms and evidence-based statistical data. We hope to see the next generation of psychiatrists trained to relate to a suffering human being in the patient's chair rather than be caught between the Scylla of manualized psychotherapy treatments and the Charybdis of dispensing statistical diagnostic labels and drugs to treat their patients' "brain-based" pathology without paying attention to the meaning of their experiences.

PSYCHIATRY AS A PSYCHOBIOLOGICAL DISCIPLINE

The schism between *the third person "I to it"* objective perspective and *first-person "I to me"* subjective experience continues to plague psychiatric treatment and training. Reductionistic science and the vestiges of Cartesian dualism (a deeply-entrenched separation between "biological brain" and "immaterial mind") impacts our ability to treat brain/mind as a unified system that possesses a fundamental first/third person complementarity.[8] The "biological" neuroscience perspective operating psychopharmacological and brain-based modalities often gets equated with "scientific psychiatry," while attention to the patient's subjective experience and relational dynamics in the treatment setting is relegated to little more than dispensable pseudoscience. From the psychobiological perspective, a functioning human brain has *both* subjective *and* objective aspects to it, which operate as an interconnected whole; by way of a comparison from physics, elementary particles behave simultaneously as a particle and a wave and show the property of entanglement so that one cannot be studied in isolation from the other. The aspects of brain/mind reality are distinct but inseparable and irreducible to each other; therefore, the question of whether mental illness is "really" a neurochemical imbalance in the brain or a subjective experience in the mind is meaningless, and is akin to asking whether a photon is "really" a particle or a wave. Physical science has taught us that neither position can stand alone; both are valid depending on the observer's vantage point and stand in fundamental complementarity in elucidating the nature of physical reality. In psychiatry, a functional system that achieves the level of complexity we describe as *"a living person"* is *inseparably psychobiological*: we can only address psychopathology in a meaningful way by attending to both the objective behavioral/neuroscience presentation and the patient's subjective experience of his or her biology.

The *second-person "I to You" intersubjective* perspective has been the subject of increasing attention in psychiatric treatment and training in the past 30 years, fueled by the formulation of attachment theory, the impact of mother-infant research, and the advent of interpersonal and relational psychotherapy models. The relational stance, also described as "two-person psychology" (as opposed to one-person psychology of treating the psychiatrist as an impartial observer or limiting the therapeutic interaction to the treatment provider's "good self") has largely replaced the traditional "blank screen" approach informed by the classical "objective observer" model in physical and psychological sciences. According to the classical view, physical reality was seen as objective and independent of the conscious observer, a paradigm instrumental in the

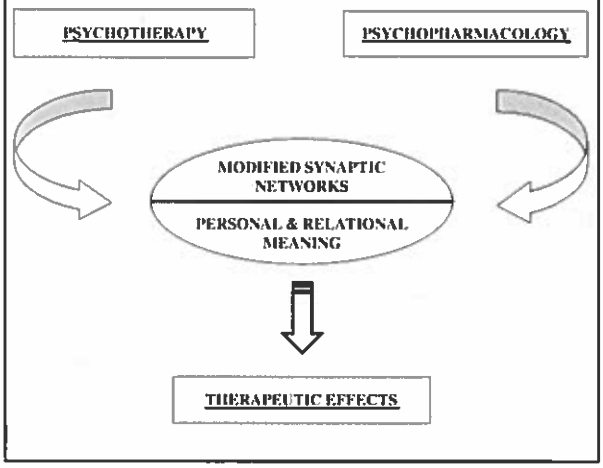
development of both psychoanalysis and the medical model of psychiatric treatment. Mental illness, in this view, is an intrapsychic aberration that exists within the patient and has to be analyzed by an impartial expert-observer (whether psychoanalyst or psychopharmacologist) who provides a proper diagnosis and prescribes effective intervention for it. Divergent as they were, classical psychoanalysis and biological psychiatry both fell into a common trap of focusing on the isolated patient-system and ignoring the complex intersubjective dynamics between the patient and the caregiver that are now known to be a cornerstone of any successful treatment outcome.[9]

We know now that an observer is inseparable from the act of observation, a paradigm defined as the "*participant observer*" in quantum mechanics, where the very presence of an observer fundamentally alters the wave function of the system under observation.[10] In the psychological domain, the complex attachment matrix with significant others continually shapes both our subjective sense of "self" and synaptic networks underlying our subjective experience; in relating to others, we participate in an ongoing process of mutual psychobiological change. The participant observer position is nowhere more evident than in psychiatric treatment, where biological interventions carry critical psychological meanings, and therapeutic interactions become a psychobiological tool that induces lasting changes in the patient's brain physiology.[11] The emergent patient-caregiver system is seen to catalyze the development of more adaptive configurations in the patient's brain/mind system in a self-organizing, nonlinear process of therapeutic change.[12]

Psychiatric practitioners can bridge the persistent brain-mind divide by working within an integrated psychobiological model, in which we treat the person of our patient as a *complex adaptive system* that has both objective and subjective aspects to it. In addition, the intricate intersubjective matrix between the complex adaptive system of the patient and that of the caregiver underlies every psychiatric intervention. Within this model, psychotherapy becomes a form of targeted biological process with the power to rewire the patient's synaptic networks; conversely, biological treatments carry a wealth of subjective meanings and relational contexts that can facilitate or negate their efficacy.[13] The interface between neuroscience, relational models of treatment, and the dynamic systems perspective has been particularly fruitful in providing a new informational language capable of unifying the "objective" domain of synaptic mechanisms of psychopathology with subjective and intersubjective systems of meaning.[14]

The perspective of psychobiology forcibly argues for a systemic approach to brain/mind functioning that integrates objective neuroscience and behavioral presentation with the patient's subjective experiential perspective (Fig. 1). Steven Stahl, a renowned psychopharmacologist, recently commented that "psychotherapy can now be conceptualized ... as a neurobiological probe capable of inducing epigenetic changes in brain circuits, not unlike the ultimate actions of psychotropic drugs" (p. 251).[15] Psychiatry is in a unique position among the medical sciences precisely because it aims to systematically study and address the interplay of physical, psychological, and social/relational aspects of mental illness; we do not identify ourselves as neurologists because we treat "person diseases" rather than "brain diseases." Whether or not neurophysiological findings are present in

FIGURE 1. Psychobiological model of integrated psychiatric treatment: both psychotherapeutic and psychopharmacological interventions have biological impact on the brain, and both carry personal and relational meaning, which contribute to therapeutic effects.



psychopathology, the critical focus of psychiatric attention is on the patient's verbal and nonverbal experience, such as the content of hallucinations/delusions in a psychotic patient, or affective tone and relational dynamics in a patient with a mood or anxiety disorder.

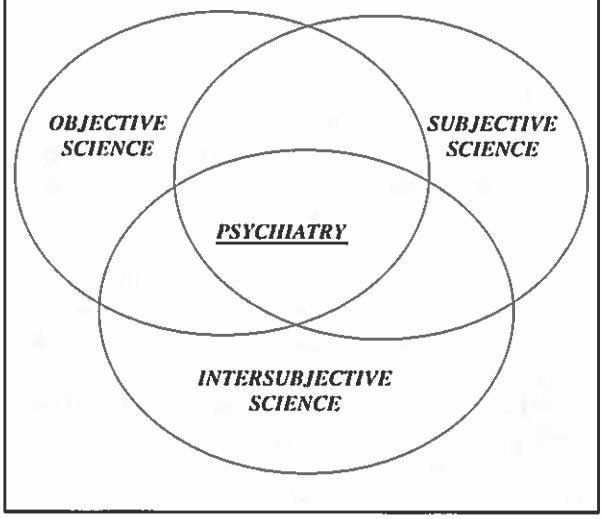
It is important to point out that attention to subjective and interpersonal domains does not make psychiatry any less of a scientific discipline. In 2009, Velmans provided a useful classification of objective, subjective, and intersubjective science, pointing out that all science is necessarily intersubjective and depends on shared private experiences; without knowing subjects, there is no knowledge of any kind.[16] Subjective and intersubjective data can be examined using the same rigorous empirical criteria of identifying pathologic patterns, forming hypotheses about their etiology, and subjecting them to relational validation in the treatment setting, the paradigm defined as *process research* in individual and group treatment. The psychobiological approach brings to the forefront our patients' agency in actively constructing their reality rather than being passive victims of their brain pathology, and it helps us to avoid the pitfall of treating our patients as "aberrant brains" whose subjective experience we can ignore—a mirror fallacy to the uninformed psychotherapist's "disembodied mind" approach.

The integrated science of psychiatry, therefore, arises at the intersection of objective, subjective, and intersubjective informational domains (Fig. 2). Several integrative models such as *interpersonal neurobiology*[17] and *psychodynamic psychopharmacology*[7] argue for incorporating psychotherapeutic and biological treatment modalities within the intricate web of intersubjective interactions in the treatment setting that contribute to treatment response and compliance. This position was succinctly summed up by Amini et al[18]: "In a psychobiologic model, the long-held distinction between 'psychological' treatments and 'biological' treatments largely disappears ... psychotherapy is not merely a conversation, or an intellectual exchange of words and ideas. Instead, it is an attachment relationship, which is a physiologic process capable of altering underlying neural structure. From this perspective, psychotherapy is just as 'biological' as any other treatment modality. Conversely ... psychopharmacologic treatment has as many psychological implications as a transference interpretation. From a psychobiologic perspective, then, a clinician's task is not to decide between 'biological' and 'psychological' therapies, because all therapies are always both" (p. 232).

PSYCHOTHERAPY HAS A LASTING IMPACT ON THE PATIENT'S BRAIN STRUCTURE: THE OBJECTIVE NEUROSCIENCE PERSPECTIVE

The idea that psychotherapy as a form of learning can permanently affect brain physiology goes back to Nobel laureate Eric Kandel's[19] seminal work published in 1979, "Psychotherapy and the single synapse," in which he stated: "I would argue that it is only insofar as our words produce changes in each other's brains that patient-therapist intervention produces changes in patients' minds. From this perspective the biologic and psychologic approaches are joined" (p. 1037). In a follow-up paper published in 1998,[20] Kandel proposed 5 principles of psychobiological integration as part of a "new intellectual framework of psychiatry," stating: "Insofar as psychotherapy or counseling is effective and produces long-term changes in behavior, it presumably does so through learning, by producing changes in gene expression that alter the strength of synaptic connections" (p. 460). In a recent interview, Kandel

FIGURE 2. Psychiatry as an intersection of objective, subjective, and intersubjective science.



succinctly summed up the current state of psychobiological research: "Psychotherapy is a biological treatment, a brain therapy. It produces lasting, detectable physical changes in our brain, much as learning does" (quoted in McWilliams[21]).

There is now an overwhelming amount of evidence that a wide range of psychotherapy interventions have a direct and lasting effect on brain physiology. Early studies focused on cognitively based treatment modalities, but there is also now increasing evidence for the biological impact of psychodynamic and integrated treatments. Baxter et al[22] showed normalization of right caudate metabolism following successful behavioral therapy for obsessive-compulsive disorder. Later studies by the same team using positron emission tomography[23] demonstrated normalization of a larger cortico-striato-thalamic system in responders to behavioral therapy. Paquette et al[24] showed normalization of regional cerebral blood flow in the dorsolateral prefrontal cortex, which is implicated in working memory and conscious behavior planning, as well as normalization of parahippocampal overactivity after successful cognitive-behavioral therapy (CBT) treatment. The authors concluded that, "Changes made at the mind level, within a psychotherapeutic context, are able to functionally rewire the brain" (p. 401). These results have been corroborated by Straube et al,[25] who showed increased bilateral activity in the insula and anterior cingulate cortex (ACC), the regions that downregulate limbic overarousal responsible for intense fear reactions, following successful CBT.

Treatment-specific regional brain changes following CBT for major depression have been demonstrated by Mayberg's group.[26] These changes involve metabolic increases in the hippocampus and the dorsal cingulate, and decreases in the dorsal, ventral, and medial frontal cortex. The authors hypothesized that psychotherapy downregulates the prefrontal-limbic system implicated in mood/anxiety disorders in a top-down manner. This and other studies (see review by Linden[27]) suggest that psychotherapy may be recruiting inhibitory cortical circuitry to compensate for higher limbic/amygdala activation that is responsible for hypervigilant states in patients with depression, anxiety, or personality disorders compared with controls. Frewen et al[28] proposed a useful psychobiological paradigm for the impact of cognitively based therapies on 3 principal brain areas: higher-order executive areas including the dorsolateral prefrontal cortex; cortical midline structures responsible for self-other representations (ventral and dorsal anterior cingulate, ventromedial and dorsomedial prefrontal cortex, posterior cingulate, and precuneus); and limbic areas responsible for emotional processing (insula, amygdala, ventrolateral prefrontal areas). They demonstrated that clinical improvement in posttraumatic stress disorder (PTSD) following imagery exposure and cognitive restructuring is positively correlated with right ventral ACC activation, and inversely correlated with right amygdala activation, once again suggesting that psychotherapy recruits cortical inhibitory regions to compensate for trauma-based limbic overactivity.

In the psychodynamic domain, Beutel et al[29] showed that short-term dynamic psychotherapy in panic disorder leads to increased prefrontal activation to panic-specific stimuli with a corresponding decrease in limbic (amygdala-hippocampal) metabolism in treatment responders, findings which are again consistent with the prefrontal downregulation of limbic overactivity. In the first study that investigated molecular markers of psychotherapy, Karlsson et al[30] provided evidence that short-term dynamic psychotherapy increases 5-HT_{1A} receptor density (a known trait marker for major depression) in a wide range of networks including prefrontal, parietal, and temporal cortex. Indeed, there is evidence that patients undergoing psychodynamic treatment continue to improve following therapy discontinuation, which is not always the case for psychopharmacological or shorter term interventions alone.[31] A recent comprehensive review of nearly 20 studies on brain changes following psychotherapy[32] documented the physiological effects of CBT, interpersonal psychotherapy, dialectical behavior therapy, and psychodynamic therapy in diverse patient populations, including those with major depressive disorder, obsessive-compulsive disorder, panic and social anxiety disorders, specific phobias, PTSD, and borderline personality disorder.

Several other studies also deserve mention. Dichter et al[33] showed that, in behavioral activation therapy, remission of avoidance symptoms in patients with major depressive disorder was correlated with fMRI prefrontal changes in the reward system, including paracingulate (reward selection),

right caudate (reward anticipation), and orbitofrontal areas (reward feedback). Sharpley[34] reviewed the neurobiological effects of both CBT and psychoanalytic therapy, which have been shown to reverse depression-associated hypercortisolemia, with serotonin transporter (SERT) levels being significantly increased following 12 months of psychodynamic psychotherapy. Patients with borderline personality disorder following successful dialectical behavior therapy show changes in the right ACC, right temporal and posterior cingulate, and right insula areas that correlate with decreased emotional overarousal.[35] Studies of the analgesic effects of hypnosis show selective suppression of ACC/somatosensory activity in pain processing.[36] The findings of Lindauer et al[37] utilizing brief eclectic psychotherapy showed a positive correlation between remission of PTSD symptoms and changes in the activity of the left medial prefrontal cortex, a region known to inhibit amygdala response. Most intriguingly, narrative exposure therapy in PTSD patients has recently been shown to reverse trauma-associated increases in basal DNA breakage in treatment responders compared with controls.[38]

THE ROLE OF PSYCHOTHERAPY IN PSYCHIATRY

The challenge in medicine is to select effective treatments that would benefit our patients and allow reasonable access to them. Quantitative research demonstrating safety, specificity, effectiveness, and cost-benefit analysis of psychiatric interventions is essential for this purpose. However, we are in danger of losing sight of our patient by focusing exclusively on "objective" nosology and syndrome-validated interventions. Clinical syndromes do not exist independently of the patient's experience of his or her illness. Psychiatric classification can be likened to charting star constellations: they do not exist "out there in the sky" but represent accepted conventions that can be useful in navigating our way around the globe. Just as the stars that we see forming the constellations can belong to completely different systems, presenting symptom clusters may arise from different etiologies in different patients. A recent onset of panic symptoms in a young mother who had been a victim of childhood abuse requires a different set of treatment interventions than similar symptoms in an otherwise well-adjusted business executive with caffeine dependence. We need psychiatric nosology to navigate the enormous complexity of psychopathology and care provision, but we always have to remember that we treat sick people and not disembodied DSM constellations of symptoms. As clinicians, we have to constantly question: How do we apply our statistical knowledge in this unique case? Why is this person reacting the way he or she does? What is the meaning of his or her symptoms? What combination of psychotherapeutic and psychopharmacological interventions would be required in this particular case?

In addition, no treatment is a cure for all. Brief CBT interventions advocated by HMOs and third-party insurers in the United States and Canada may be an excellent strategy to treat a patient with uncomplicated adjustment disorder, but prescribing a course of 6 telephone-based sessions for a victim of extensive developmental trauma or a patient with a personality disorder may do more harm than good because deeper and more consistent therapeutic exploration would be required. Strong evidence exists that complex psychiatric presentations benefit from longer term treatment, which is highly cost-effective.[39] Just as we may select an activating antidepressant or appetite-promoting antipsychotic for a patient with anorexia and retarded depression, we need to select an appropriate psychotherapeutic intervention out of a full range of evidence-based treatments that fits our patient. Does the patient present with an acute or chronic/recurrent syndrome? Is there evidence of developmental trauma or personality pathology? What is the quality of the patient's interpersonal relatedness? If we do not prescribe a hypnotic without exploring the pattern and nature of the patient's sleep disruption, we cannot automatically prescribe a course of standard manualized treatment to everyone who presents with psychological distress. The challenge of integrated treatment is to devise an individualized treatment plan that would address the question: "What works for whom?"[40]

Pressures toward manualization and statistical diagnostic and treatment guidelines, useful as they may be in research settings, can contribute to the dehumanization of psychiatry. In the words of Duncan and Miller,[41] "Manuals equate the client with a DSM-IV diagnosis and the therapist with a

treatment technology, both interchangeable and insignificant to the procedure at hand" (p. 148). As it stands, "empirically supported therapies" and evidence-based practice guidelines rely on averaged statistical data across many subjects and treatment providers, an approach that tends to ignore the subjective and intersubjective dimensions of psychiatric treatment.[42] By focusing on the "syndrome" and ignoring the unique aspects of the patient presentation and patient-provider interaction, manualized treatment can lead to the "conveyor-belt" model of care, where we end up treating generic diagnostic labels with generic interventions over a predetermined generic period of time.

To use a musical analogy, we could be asked to listen to "the best" averaged performance of a Bach fugue compiled from multiple recordings by different artists and use it as a template to teach future generations of musicians. Technically flawless as such a "manual" might be, it would be entirely meaningless and even harmful because the consistency and richness of the individual interpretations have been lost. It is the patient who provides the "musical score" for the treatment process; the majority of our patients do not present with categorical DSM diagnoses, and it is the rule rather than an exception that patients in clinical (as opposed to research) settings have multiple comorbid conditions and transcend the diagnostic categories, which themselves shift from one DSM edition to the next.[43] In addition, patients' symptoms do not remain static, changing in the course of the treatment. In his recent book, Allen Frances,[44] chair of the DSM-IV Task Force, stated: "DSM has to stay simple but psychiatry doesn't. DSM diagnosis should be seen as just one small part of an overall evaluation that would also comprehensively account for the more complicated and individual aspects of each patient" (p. 25).

Clinicians may need to move from conceptualizing psychiatric diagnosis as "fixed and objective categories" to looking at diagnosis as a *process of getting to know* our patients that grows out of the deepening therapeutic relationship. In this view, presenting symptoms become evolving constructs, the tips of psychopathologic icebergs floating within the currents of the patient's subjective experience; they gradually "melt" and change their configurations during the treatment process. We have to move from looking at the patient's symptomatic presentation as the problem to be fixed, to conceptualizing presenting pathologic patterns as the patient's imperfect adaptations to his or her life experiences. By providing a healthier relational environment and psychopharmacological stabilization in the here-and-now treatment setting, we create a "secure base" for change that allows more functional adaptations to take shape in the course of the treatment. This perspective is consistent with memory reconsolidation and epigenetic plasticity research,[45,46] and integrates objective, subjective, and intersubjective perspectives that can truly unify psychiatry with medical science. Symptoms become clues to the underlying psychopathology rather than problems in themselves. In effect, every successful treatment provider helps the patient to make sense of his or her emotionally laden experiences (working through "feeling bad") and uses some theory-based structure (whether psychotherapeutic, psychopharmacological, or both) to form a meaningful relational bond that influences the success or failure of the treatment. The dynamics of forming a therapeutic alliance parallel findings from mother-infant research concerning what facilitates the development of secure attachments,[47] and they transcend brand-name treatment approaches, being equally applicable in both psychotherapeutic and psychopharmacological domains.

CONCLUSIONS

A great deal of progress has been made in elucidating the biological effects of various psychotherapy interventions, substantiating their efficacy, and applying them in various patient populations, both as monotherapy and in combination with psychopharmacological modalities.[48] Process research demonstrates that the quality of the doctor-patient relationship, the patient's expectations of treatment, and the patient-provider fit comprise some of the "common factors" that contribute to treatment outcome in all schools of psychotherapy, as well as to psychotropic medication response.[49] There is clear evidence that psychotherapy is a cost-effective intervention for a variety of psychiatric conditions, reducing both the direct and indirect economic burden of mental illness.[50] These data strongly suggest that *both* psychopharmacological and relational/psychotherapeutic aspects of treatment

are equally foundational in psychiatric practice, comprising an integrated, psychobiological approach to patient care that transcends the Cartesian brain-mind dichotomy. It is just as detrimental to ignore the patient's experience of the illness and the relational patterns that he or she brings into the treatment setting, as to treat a severely depressed or psychotic patient without appropriate medications. The *process of diagnosing and prescribing*, and the relational transactions during the doctor-patient interchange are both endowed with a plethora of meaning that can either facilitate or adversely affect the treatment outcome.

In their stunning reanalysis of data from the National Institute of Mental Health 1985 Treatment of Depression Collaborative Research Program, McKay et al[49] identified a "*prescriber effect*," with prescribers who were rated as being in the top third of the sample in terms of treatment outcomes, having better outcomes with placebo treatment than were achieved by the third of psychiatrists who were rated as the least effective and were prescribing active antidepressant medications. In demonstrating that the treatment effects of psychiatrist prescribers were greater than those of active medication, McKay and colleagues[49] cite earlier warnings from Sadock and Sadock[51] that "physicians' failure to establish good rapport with patients accounts for much of the ineffectiveness of care" (p. 6). Similar findings in the psychotherapy domain reported by Duncan and Miller[41] have shown that therapeutic efficacy is not dependent on the therapist's theoretical adherence or technical proficiency but rather on his or her biological versus psychological orientation and attitude toward longer term individualized treatment. In their words: "Psychotherapy is not ... the sterile, stepwise process of surgery, nor the predictable path of diagnosis, prescription, and cure. It cannot be described without client and therapist, coadventurers in a journey across largely uncharted territory" (pp. 148–149). Attention to individual and relational meanings can serve as an invaluable diagnostic and treatment tool that can only be downloaded to computer software or allied clinical staff at the patient's peril.

The need to attend to the patient's subjective experience and here-and-now relational process underscores the fact that a patient and treatment provider together not only bring their unique subjectivities into the treatment process, but also form a joint complex adaptive system that catalyzes its own trajectory toward therapeutic change.[14] The patient's pathologic patterns of adaptation to their developmental environment are brought into the treatment setting and remolded in the course of patient-provider interactions. Psychopharmacological and psychotherapeutic modalities partner together in building new synaptic pathways that allow patients to restructure the meaning of their subjective and interpersonal reality in a nonlinear, self-organizing process of change. From the psychobiological perspective, the real problem may not reside in the illusory separation of biological versus psychotherapeutic interventions but in focusing on the patient's "objective" symptomatic presentation at the expense of his or her subjective meaning and relational interactions. Recent trends toward psychotherapy integration and combined psychotherapy/psychopharmacology treatment within a single-provider model are instrumental for this purpose.

Above all, we need to teach future generation of psychiatrists to understand the person in the patient's chair rather than to turn into glorified pharmaceutical or manual-driven technicians, who predominantly dispense generic diagnostic labels and statistically validated treatments for them. William Osler's timeless statement that, "It is much more important to know what sort of a patient has a disease than what sort of a disease a patient has" holds particularly true in psychiatry. To achieve this goal, we have to shift our focus from teaching *what* to prescribe to *how* to prescribe; from teaching evidence-based treatments to empirically supported principles of change,[52] and from teaching brand-name manualized technical skills to understanding why our patients react the way they do. Embracing an integrated psychobiological model of psychiatric care that addresses the whole person of our patient and makes ourselves full coparticipants in the process of adaptive change is a major step toward this goal.

RECOMMENDATIONS FOR THE ROLE OF PSYCHOTHERAPY IN PSYCHIATRY

(1) Psychiatry should be seen as a fundamentally psychobiological discipline that aims to address *both* the patient's objective pathology *and* his or her subjective and relational experiences, including relational dynamics in the treatment setting.
(2) The study of subjective experience and intersubjective interactions inherent in the doctor-

patient relationship should be put on an equal footing with the study of the brain, in keeping with the delineation of objective, subjective, and intersubjective science.

(3) The separation of biological and nonbiological treatments in psychiatry is obsolete. Both psychotherapy and psychopharmacology occur in the context of the therapeutic relationship; both induce structural changes in the brain; and both carry a wealth of subjective meaning that influences treatment outcome.

(4) Attention to the therapeutic alliance and integrated psychotherapy/psychopharmacology should be considered fundamental to any psychiatric treatment. In most clinical situations, the question is not whether a patient needs medication *or* therapy, but what kind of medication and what kind of therapy are most appropriate. As professionals trained in both biological and psychotherapeutic modalities, psychiatrists are in the best position to choose between providing integrated care within their area of expertise or referring their patient for specialized treatment, such as biological interventions (specialized mood/psychosis clinics, electroconvulsive therapy/repetitive transcranial magnetic stimulation); psychosocial interventions (age-appropriate or support services); or specific psychotherapy approaches.

(5) Statistical and manualized approaches to psychiatric diagnosis and treatment have to be balanced by attention to the patient's unique history and experience, and the fit of the patient-provider relationship. The cardinal question for a psychiatric practitioner is "what treatment approach does this person need?" rather than what diagnostic label or syndrome-validated manual to apply to them.

(6) Integrated psychiatric care should be based on empirically supported *principles of change* rather than brand-name treatments. Just as prescribing a psychopharmacological agent has to be based on a patient's unique presentation rather than pharmaceutical advertising, so a psychotherapeutic intervention has to reflect a patient's developmental history and specific needs rather than a generic "empirically supported" treatment approach.

(7) Psychotherapy should be maintained as a core competency area in psychiatric training. Specifically, nonstatistical, process approaches to understanding the patient's unique subjective dimension and the intersubjective interplay inherent in the doctor-patient relationship should be incorporated in all psychiatric residency curricula. In addition, psychopharmacological and psychotherapeutic supervision should not be divorced from each other, which only serves to perpetuate the brain-mind dichotomy. Instead, integrative approaches, such as psychodynamic psychopharmacology and combined medication/therapy treatment, should be utilized whenever possible.

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