Section 1

1

Complex treatments: the evolving place for a medical–psychiatric coordinating physician

Medicine has lost direction. You would have to look hard to find a patient, physician, or administrator who does not agree with the frustration reflected in that opinion. Managed-care and medical-center-based-clinic patients complain that their healthcare systems are too bureaucratized, their choices too limited, and the physicians they encounter more like "gatekeepers" than "healers." In the private practice, fee-for-service sector, the usual dissatisfaction is about the disorganization of services and lack of collaboration among physicians. Patients lament the fact that office visits have become unconscionably brief, medical treatment too impersonal, and that costs are escalating. Negotiating this fragmented system and its out-of-control expense can be maddening for both patient and physician (Kovner *et al.*, 2000; Gawande, 2007; Gawande *et al.*, 2009; Hussey *et al.*, 2009; Kovner, 2010).

With this book we hope to do our part to confront this dilemma. We intend to make our contribution at the clinical level, ultimately through the integrated treatment model we introduce in the following chapters. This method of patient care features a physician in a newly created role; that of the "Medical–Psychiatric Coordinating Physician" (throughout this book designated by *MPCP*). MPCP treatment is especially applicable for diagnostically complex and management-intensive *complex cases* (de Jonge *et al.*, 2006; Huyse *et al.*, 2006; Stiefel *et al.*, 2006; Latour *et al.*, 2007a; Leff *et al.*, 2009; Kathol *et al.*, 2010a; Grant *et al.*, 2011): those involving co-morbid systemic medical and psychiatric illnesses, and excessive utilization of resources, as well as requiring the participation of multiple interacting physician providers, healthcare workers, and consultants.

Throughout this book, while we spotlight this group of patients and develop the MPCP model, we also pay special attention to the essential complexity of clinical work ("clinical complexity") (Plsek & Greenhalgh, 2001), how it impacts the resolution of all the pathology we encounter, and how it can be best managed through the use of devices for improving clinical accuracy. We designate these techniques "truing measures," since they point the physician in the direction of technical precision and, ultimately, toward the best approximation of clinical "truth" (Campbell & Fiske,

1959; Arkes, 1981). We will elaborate on the use of truing devices throughout the book, especially as we discuss complex clinical cases. Regardless of the diagnostic or logistical considerations in a case, issues of *complexity* in clinical work and the requirement for the rigorous application of truing measures are never missing.

The responsibilities of the medical–psychiatric coordinating physician

We understand the MPCP as addressing two separate clinical dimensions. *Level 1*, the "microscopic," consists of individual physicians and other healthcare professionals rendering direct care and working within their own specialties. *Level 2*, the "macroscopic," refers to the multi-person system of interacting physicians and other health professionals that develops around each case. While working at *Level 1*, the physician strives for accuracy within clinical encounters using all the technical measures at his or her disposal.

While operating at *Level 2*, the MPCP coordinates and monitors the patient's overall treatment. From this vantage point the MPCP manages, optimizes, and, in effect, "treats" the patient's unified medical-psychosocial system, addressing its dysfunctions. He or she does this by leading a treatment team consisting of other physicians and allied healthcare professionals (Gittell *et al.*, 2000, 2008; Gittell, 2009). Communication of team decisions to the patient and, often, the patient's family members is central to this role. The MPCP's charge is to see that the team functions in a way that optimizes outcome. Overall, while most uniquely embracing the *Level 2* coordination role, the MPCP works alternately and, often, simultaneously, on *Level 1* and *Level 2*, taking on whatever tasks are required at each point to make the treatment most effective and applying truing measures to guide this work.

Levels of complexity represented in clinical work

As we move along in this book, our effort will be to explicate and keep track of multiple interrelated dimensions of complexity encountered in clinical practice and propose a model for dealing with these, while maintaining precision in our work. We have separated out the following four contributions to the *complexity* of clinical work and will take up each either directly or as we discuss cases. The two basic categories of complexity are designated by an asterisk. Examples of these categories are distributed throughout the book.

Categories of clinical complexity

- * ***Clinical complexity***: the multiple considerations, either deliberate or spontaneously arrived at, that a clinician encounters when attempting to formulate and/or intervene in a case. "Clinical complexity," when it leads to the involvement of multiple participants, may predispose to "operational complexity."

* ***Operational complexity***: refers to a treatment effort involving multiple participants. These treatments generally benefit when those involved are organized as a treatment team.

Diagnostic complexity (a subcategory of clinical complexity): refers to the clinical entities, often co-morbid, that a clinician targets as he or she works with complex cases. Diagnostically complex patients are commonly encountered in medical services of major medical centers. An example would be a post-transplant patient who is also dependent on opioids or one with diabetes mellitus who suffers from Bipolar Disorder.

Management complexity (the extent to which management difficulties characterize a case): patients whose clinical management requirements are challenging. These patients are often referred to as "difficult" or "impossible" patients (they are often also "chronic"). They usually over-utilize resources and elude attempts to manage their care efficiently.

The clinical subpopulation being addressed

Having initiated the subject of complexity in clinical work and embarked on an initial exploration of its dimensions, we return to our ultimate interest, clinical implementation. Various models of care, apart from the MPCP model, have been proposed for the delivery of integrated psychiatric and systemic medical care for diagnostically and operationally complex outpatients (Katon *et al.*, 1995, 1996, 1999; Zatzick *et al.*, 2004; American College of Physicians, 2006; Wulsin *et al.*, 2006; Nutting, et. al, 2009; Kathol *et al.*, 2010a; Kates *et al.*, 2011; Katon & Unützer, 2011; Zatzick *et al.*, 2011).

Some of these care systems (Katon *et al.*, 1995, 1996; Zatzick *et al.*, 2004; Kathol & Gatteau, 2007; Kathol *et al.*, 2009, 2010b; Kates *et al.*, 2011; Katon & Unützer, 2011) endeavor to eliminate the familiar and, we believe, artificial, separation between the delivery of systemic medical and psychiatric services. In contrast to the reliance on physician leadership in the MPCP model, and often in the interest of cost effectiveness, treatment coordination in these treatments is generally accorded to non-physician case managers.

There is a sizable subgroup of these clinically and operationally, psychiatrically co-morbid, complex patients whose pathology, however, does not respond well to the care described by these models. The psychiatric illnesses of this group dominate the clinical picture (Kathol & Gatteau, 2007; Kathol *et al.*, 2009; Grant *et al.*, 2011), complicating and prolonging their treatments. For these patients it is especially desirable, and often imperative, to have a psychiatrist as MPCP. We designate this subpopulation "*Management-Intensive Patients*" and, in particular, "*Psychiatrically Co-morbid, Management-Intensive, Complex Patients.*"[1]

[1] It is noteworthy that an MPCP's role with this group is co-extensive with the work of psychiatrists with an interest in the interface of systemic medicine and psychiatry. It therefore may have special

When considering the future for the MPCP model for patient care, we also envision its coordinating features being embraced by interested PCPs. In that situation the MPCP model becomes simply the "Coordinating Physician Model." (As a parallel, see the statement edited by Norman B. Kahn [2004], corresponding author for the policy statement concerning "The future of family medicine," from the American Academy of Family Physicians.) Analogous to the charge of the MPCP, these treatments would be configured to suit the needs of difficult-to-diagnose-and-treat *management-intensive complex patients,* many of whom have failed in conventional treatments. However, the balance of their pathology would not be psychiatric. To assume this role these physicians would need additional training that includes the organization and direction of clinical situations with complex management responsibilities involving interrelated medical and psychosocial systems.

The fallacy of the mind–body divide

From this point we move to fundamental considerations relevant to the MPCP model: the integration of psychiatry and systemic medicine, as well as the nature of clinical reasoning that characterizes these two specialty areas.

We begin our exposition with a brief description of the intersection of psychiatry and systemic medicine. That aspect of complexity calls for additional attention as the diagnostic and operational requirements of the patient increase.

It is tempting but reductionistic to single out the "physical" and "psychiatric" manifestations of a disease process. Treatment in each sector is commonly allocated to specialists; e.g., internists for conditions that are primarily physical and psychiatrists for illness involving mental dysfunction. Nonetheless, these two areas almost always interrelate. Illness is generally experienced "wholistically," with a patient's personal and medical reality transcending Cartesian mind–body dualism.

In this book, through the MPCP-led model, we hope to reinforce the unity of objectives we believe prevails throughout general medicine and psychiatry. We hold that similarities and linkages between these areas are compelling. All physicians and allied health professionals seek the same goal: the biopsychosocial well-being of the patient. They use corresponding technology, including examinations, interviews, feedback from relevant external sources, and testing. As such, they perform complementary roles in the broad clinical enterprise. Throughout this book we will build on the similarities between psychiatrists and primary care physicians, analogies that can be understood along similar heuristic dimensions.

appeal to those trained in psychosomatic medicine or to "dual-trained" psychiatrists with additional qualification in internal medicine or family medicine. In the case of psychosomatic psychiatrists functioning as MPCPs, the PCP would continue to render much of the systemic medical care. Dual-trained psychiatrists can assume both roles. However, in either case the MPCP must assume overall direction of the work and actively monitor medical resource utilization.

Distinctions are useful, nonetheless. As such, we will employ the following definitions throughout this book. We will speak of "primary care," that is, internal medicine, family medicine, and pediatrics, as being mainly responsible for the management of *systemic* illness. These are illnesses that for the most part are not central nervous system (CNS)-based. Psychiatry typically deals with disorders of the CNS that are manifested as "*mental*" dysfunctions. Included in this category are disorders of cognition (e.g., dementia), mood (e.g., depression), anxiety (e.g., panic disorder), psychosis (e.g., schizophrenia), and social behavior (e.g., personality disorders).

The foregoing demarcation, however, does not precisely address CNS-based illnesses that involve areas of function that are more specifically "*physical*" than "*mental*," e.g., movement disorders and seizure disorders, and that are generally the province of neurology. Furthermore, whatever delineations prevail and are useful, many systemic illnesses have CNS-based, "*mental*" symptoms associated with their pathology or are co-morbid with discrete psychiatric disorders. Equally, it is not unusual for psychiatric illnesses to have associated systemic physical manifestations.

We return here to our delivery-of-care challenge. Guiding our project has been commitment to the dissolution rather than reinforcement of the "systemic medical versus psychiatry" division. We continue to address this issue through the vehicle of the MPCP-led model. Working within the MPCP-led model of care requires familiarity and competence with both sides of the mind–body Cartesian coin, as well a unified set of operational standards and medical objectives.

Unification

To illustrate our point about the essential unity between systemic medicine and psychiatry, let us consider two familiar chronic illnesses, one classically "systemic medical" and one "psychiatric."

From systemic medicine consider the following description of diabetes mellitus, its clinical presentation, and complications, as an example of these interdisciplinary linkages. This description is excerpted from the American Diabetes Association website, professional.diabetes.org, and from "Standards of medical care in diabetes – 2012" (American Diabetes Association, 2012).

Early signs of diabetes mellitus include: excessive thirst and increased fluid intake, extreme hunger, unusual weight loss, fatigue, irritability, & visual disturbance. Diabetes mellitus develops due to a diminished production of insulin (in type 1) or resistance to its effects (in type 2). Both lead to hyperglycemia which largely causes the acute signs of diabetes mellitus. Type 2 diabetes mellitus may go unnoticed for years because visible symptoms are typically mild, non-existent or sporadic, and usually there are no ketoacidotic episodes. Microangiopathy can cause one or more of the following: retinopathy, neuropathy, nephropathy, and cardiomyopathy. Macroangiopathy may

lead to coronary artery disease, cerebrovascular disease, and peripheral vascular disease. Diabetes mellitus is often diagnosed when a patient suffers diabetic complications such as a heart attack, stroke, neuropathy, poor wound healing, visual impairment, fungal infections, or delivering a baby with macrosomia and/or hypoglycemia. Diagnosis is clinched by fasting plasma glucose level at or above 126 mg/dL (7.0 mmol/L), plasma glucose at or above 200 mg/dL (11.1 mmol/L) two hours after a 75 g oral glucose load as in a glucose tolerance test, symptoms of hyperglycemia and random plasma glucose at or above 200 mg/dL (11.1 mmol/L).

In psychiatry, formal diagnostic criteria are also quite exacting. Schizophrenia is an example. The following list of criteria is excerpted from the American Psychiatric Association's (2000) *Diagnostic and Statistical Manual*, version IV-TR (DSM-IV-TR).

Two or more of the following symptoms need to be present for much of the time during a one-month period (or less, if symptoms remitted with treatment). These include delusions, hallucinations, disorganized speech which is a manifestation of formal thought disorder, grossly disorganized (e.g., dressing inappropriately, crying frequently) or catatonic behavior. Other manifestations include negative symptoms; e.g., affective flattening, alogia, or avolition. If the delusions are bizarre, or hallucinations consist of hearing one voice participating in a running commentary of the patient's actions or of hearing two or more voices conversing with each other, only that symptom is required for diagnosis. The speech disorganization criterion is only met if it is severe enough to substantially impair communication.

The following evidence of social/occupational dysfunction needs to have been present for a significant portion of the time since the onset of the disturbance: deterioration to a point markedly below the level achieved prior to the onset in one or more major areas of functioning such as work, interpersonal relations, or self-care. Continuous signs of this aspect of the disturbance need to have persisted for at least six months. This six-month period must include at least one month of symptoms (or less, if symptoms remitted with treatment).

In addition, schizophrenia cannot be diagnosed if symptoms of a mood disorder or pervasive developmental disorder are present, or the symptoms are the direct result of a general medical condition or use of a substance, such as abuse of a drug or medication.

The scientific argument

We have considered two "prototypical" illnesses, one "systemic medical" and the other "psychiatric." Returning to points of intersection in the mind–body dichotomy, diabetes mellitus, in addition to the physical symptoms noted above, is well known to be associated with psychiatric co-morbidities such as depression, vascular dementia, and episodes of delirium during periods of systemic instability. In addition, the profound need for assertive medical self-management mandates that the treating physician keep close track of the patient's emotions

and thinking, compliance with medical treatment, and capacity to tolerate the psychiatric burden of a chronically life-threatening and life-limiting illness.

By the same token, schizophrenia, while obviously "psychiatric" in its origins, is associated with high rates of smoking and its predicable systemic consequences. Obesity is a frequent metabolic consequence of many of the common psychopharmacological treatments used to treat it, and schizophrenia is associated with a 25-year reduction in life expectancy due to all causes. From a disease standpoint, then, one can understand diabetes mellitus as a "psychiatric" as well as a systemic illness, and schizophrenia as a "systemic" as well as a psychiatric illness.

Hopefully, you can see why we have gone to such trouble to bring the practices of general medicine and psychiatry into alignment. One focus rarely is adequate without the other. Primary care medicine patients often present with complicated personal histories, individual preferences, and temperamental differences that influence their ability to cope with illnesses. They exist in a social milieu that, as the examples in this book illustrate, may profoundly affect their ability to accept and work productively in treatment. Reciprocally, it almost goes without saying that psychiatric practice benefits from recognizing and taking on the more factual focus that characterizes the practices and standards that prevail in non-psychiatric medicine.

Shift here to the criteria for patient care and verification that prevail in general medicine. The components are actually quite straightforward. The physician is charged with finding out what is wrong with a patient, whether the primary etiology is biological, psychological, or environmental. To carry out this task he or she has the responsibility of coming up with a list of likely diagnoses and refining them through a careful process of elimination. Completing this process involves creating and implementing a treatment plan.

Finally, there is accountability. The physician is accountable for results, or, if these are short of the mark, for seeking additional information or consultation to discover why that is true and what to do about it. At this point the treatment plan may need to be modified or reformulated. We believe that these principles of care and verification are as relevant in psychiatry as in general internal medicine and family practice.

Medical treatment as a scientific project

We hold that the decision to undertake medical treatment involves the patient and physician in a one-subject scientific project. To clarify what we mean, the basis of any scientific undertaking can be summarized in the simple statement: Y is a function of X. Y is the dependent variable, in medicine the difficulty that brings the person into treatment. X represents independent variables, the factors (X′, X″, etc.) that together account for the patient's difficulty.

As an example, again consider the criteria for diagnosing diabetes mellitus. The patient's health is the dependent variable; the pathophysiology of the disease, as well as the patient's habits, are the independent variables. How and what the

patient eats, and how well he or she can monitor blood glucose and follow through with medical instructions, are independent variables.

Switching to psychiatric practice, think of a patient with a social phobia or avoidant personality disorder who has difficulty establishing relationships. That is the dependent variable and our job is to discover all the independent variables – the Xs – that account for that difficulty. These factors might include family background, history of relationships, and temperament. If we could be clear about the identity of all the independent variables we would be able to solve the equation, making the Xs explain Yand reducing the "variance" associated with it. As a result we would be able to identify all the treatment interventions that might improve outcome.

By advocating for the identification and use of truing measures, the project we are embarking on has the goal of encouraging the physician to be as scientific as possible, striving to account for as many independent clinical variables as possible. By doing so, he or she should be in the best position to address the core clinical issues, the dependent variable(s), in each case.

Clinical judgment

Now to decision making: how physicians process all the data they have available to them into the sort of understanding that leads to effective interventions. Physicians make decisions, literally hundreds of them during every office visit. These are usually small decisions that "microscopically" dictate the course of a treatment. While almost all of these choices require some deliberation, many are relatively spontaneous. As such, most involve a good measure of "clinical judgment" (Goldberg & Werts, 1966; Arkes, 1981; Downie & Mcnaughton, 2000; White & Stancombe, 2003).

Clinical judgment has both objective and subjective components. Included in the influences – the independent variables – shaping these judgments are the clinician's training, his or her currency with recent developments in the field, and clinical experience. Added, are sources of data that are technically specific, including clinical interviews and examinations, laboratory and imaging studies, and information from collateral sources. For gauging outcome the physician also has standardized tests and rating instruments at hand. Subjective contributions to this process include the clinician's common sense, personal capacity for organizing and prioritizing clinical data, personal opinions, and prejudices. Thus far only the clinician's contribution has been mentioned. However, there are actually few applications of clinical judgment that are not colored by the patient's preferences and mood.

Clearly it is impossible to remove the human substrate from clinical work. It should be obvious, then, that clinical judgment exists in *partnership* with but is *distinct from* the technical factors contributing to clinical decision making. The "data" clinicians deal with are always commingled with interpretation and opinion. The physician is the main author of these judgments, but the patient's opinion and reactions influence them as well.

Strategy: orchestrating clinical judgment

Orchestrating treatment introduces multiple levels of complexity, extensive sources of variance, into the clinical encounter. Beginning with the available data and using his or her judgment, the physician settles on a series of actions. There are major actions and minor ones. Some of the resulting strategies are consciously worked out in the clinician's mind; others are more spontaneous but no less complex. Together, these actions constitute one segment of a broader clinical strategy. The following are two examples.

Stanley

Stanley, a 62-year-old patient who had three spinal surgeries and multiple psychotherapies, was referred to me, SAF, for assessment and treatment of his psychiatric and neurological illness. While he had been accorded multiple psychiatric diagnoses generally ranging from anxiety to depressive disorders, the one that seemed most applicable was "Cyclothymic Disorder," a diagnostic category indicative of a mood disorder and categorized in the DSM-IV-TR under "Bipolar Disorders." Stanley had just moved to a location near my office, and as a result had to give up his psychiatrist of five years. Stanley was aware that the psychiatric treatment was going to end sooner or later anyway, since the psychiatrist was being treated for end-stage multiple sclerosis. From the very beginning, according to Stanley everything I did was "wrong." My office was "too hard to find," the picture on my website led Stanley to expect me to be younger, and, to make matters worse, when Stanley missed his second appointment I charged him for it. That Stanley had never bothered to cancel the appointment apparently didn't count. Stanley's argument, after the fact, was that his wife had a "personal emergency" at the time of the appointment, making it hard for him to pay attention to his own obligations.

In part out of my personal loyalty to his previous psychiatrist, I hung in with Stanley. I hypothesized that his vociferous complaints mainly represented a displacement of disappointment and anger about losing her, and were not primarily being instigated from within our relationship. Since she was terminally ill, I assumed that Stanley could not allow himself to acknowledge his anger at her. My clinical judgment, my clinical strategy as it developed, was at least in part based on guesswork. In this instance it paid off. Stanley's anger abated, we discussed his frustration, and then could refocus on his clinical problems.

Once treatment was established, I discovered that Stanley was in excruciating pain. According to him, no previous surgery had brought relief. "Can you help me Dr. Frankel? No one else has been able to. They are all a bunch of quacks. My god does it hurts [as he squirmed]!" While my first strategic move had worked, the next had to be more deliberate. I said I would continue to work with him but that I needed to contact his other physicians and get more information. Two weeks later, after I spoke to the orthopedic surgeon who had last operated on Stanley's back (why not a neurosurgeon, I wondered?), and talked at length to the

pain specialist with whom Stanley had worked, I was better armed. I had been informed by the orthopedic surgeon that in her opinion no additional surgical procedure was likely to help Stanley. But, that opinion came from an orthopedist, not a neurosurgeon. I also realized that Stanley was dependent on oxycodone as well as a number of other medications affecting his central nervous system, all of which he was taking daily as a complex medication "cocktail."

My fact finding was beginning to pay off. Clearly Stanley had not been apprised of all the options available to him, and, perhaps because of a lack of coordination among his physicians, his medical situation was being suboptimally managed. My clinical strategy was deliberate and evolved as treatment went along. My next move was to reassemble Stanley's physicians into a formal treatment team and establish a "network" so that we could communicate and work together. I informed them that I was doing this and, after Stanley agreed that it was a good idea, created a plan for our collaborative work. As we move throughout this book we will continue to develop this model, *the medical–psychiatric coordinating physician* model, for coordinated practice with complex cases. As already noted, the MPCP assembles, leads, and manages a treatment team, making sure goals are consistent, team members in synchrony, and clinical outcome monitored

Roberta

Our next case Roberta involves a prototypical but "difficult" to manage psychiatric patient, with a diagnosis of Bipolar II Disorder, most recent episode Depressed. We have included it to illustrate the central place of clinical judgment when dealing with psychiatric aspects of difficult treatments. The systemic medical aspects of the case were elusive since the abdominal and chest pain frequently reported by the patient were never shown to have any systemic medical basis. In addition to her PCP, multiple medical specialists had been consulted over a period of years. For the treatment of her psychiatric symptoms the patient was receiving therapeutic doses of bupropion and lamotrigine. She had been hospitalized five years earlier after a suicide attempt, was 46 years old at the time of referral, and was referred because she was having trouble in the workplace.

Clinical dilemma

Imagine yourself as the patient's psychiatrist. As you meet with her you discover that she is probably about to get herself into major trouble by triggering a crisis at work. As you see it, this propensity is likely associated with her bipolar mood instability. Making matters worse, her medical complaints have escalated, causing frequent absences from work. She is "infuriated" with her boss, and wants to file a complaint alleging workplace abuse. You decide to confront her with the potential problematic consequences of her planned behavior. However, through experience with her you are aware that directly challenging this patient is itself likely to incite anger and be disruptive to treatment.