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EVIDENCE-BASED UNCERTAINTY

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Synopsis:

The foundation of “Evidence-Based Medicine” (EBM) is the assumption that the determination of effective and efficient medical treatment protocols must be based upon “evidence” that consists of the accepted conclusions of formal studies and clinical trials which are controlled and peer-reviewed.

Within the practice of Psychiatry, studies have been developed which evaluate the efficacy of various protocols of psychotherapeutic intervention and psychopharmacological intervention for patients suffering from different diseases and syndromes.

The result of the evaluation and interpretation of these studies is most often a “flow-chart” of treatment interventions, suggesting which modalities should be provided first, and based upon the response to those interventions, what further treatment modalities should be introduced. The determining factors which drive the flow chart are diagnoses and symptomatology. Within “Utilization Review” systems, those flow charts are often used – not infrequently by persons who are not particularly sophisticated or experienced in mental health issues – to make initial authorizations or denials for requested treatment. Since few patients can currently afford mental health treatment outside of the managed care/EBM system, an immeasurable extent of human comfort versus suffering, as well as effective versus wasteful use of limited financial/medical resources, depend upon the accuracy of promulgated treatment guidelines.

While in all areas of medicine, there are disease processes or specific patients who do not follow “typical” courses and/or who do not respond to the “usually” effective interventions, within the field of Psychiatry, the issue of determining appropriate treatment recommendations is even more complex in that almost every psychiatric disorder or syndrome is affected by multiple

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independent and inter-dependent variables in a manner that is not typical in other areas of medicine

For example, EMB may be effective in providing suggestions for which antibiotics to use in a patient suffering from an infection due to a specific bacterium or which antihypertensive to try first in a patient with a particular constellation of physical symptoms and laboratory results. In those cases, while the presence or absence of other concurrent medical disorders might have to be considered, the therapeutic outcome would not be determined by issues related to the patient's psychosocial history, developmental history, characterological makeup, family circumstances, general life issues/stresses, philosophical or religious beliefs, etc.

However, in treating psychiatric conditions, although to some (limited) extent the manifest symptomatology of the most severe disorders (i.e., acute psychosis) may be approached in a manner similar to that used in other branches of medicine, the treatment of more typical psychiatric disorders such as non-psychotic anxiety and depression is much more complex and is not amenable to a linear decision-making process.

For the sake of argument, leaving aside the most serious and acute (psychotic) disorders, the genesis of affective pathology is multi-determined. Causative factors may include biochemical dysfunction or pre-disposition, recent and/or remote trauma (physical, sexual or emotional), "stress" due to any number of factors – including, but not limited to, family life, occupational circumstances, financial problems, interpersonal problems, physical illness/pain/disability, existential (or spiritual/religious) concerns issues of self-esteem that may rest on personal philosophical/religious beliefs and expectations and/or developmental issues of different stages of life. Even if the manifest symptomatology is similar, the response of a person to psychotherapeutic intervention and/or psychopharmacological intervention may be different dependent upon any or all of those factors, as well as additional factors such as the patient's characterological makeup and other "intangibles" that are difficult to quantify and often not even considered in typical mental health evaluations performed within the managed care/EBM environment. Even if there is no "Axis II personality disorder," the degree to which a person employs defenses which fall within the obsessive-compulsive, histrionic, passive-aggressive, hostile/dependent and/or co-dependent spectrums actively impact the response to therapeutic interventions. More subtly, a patient's response to a particular intervention (a specific medication; a type of therapy) may be impacted by positive or negative expectations based upon advertisements or news articles they have seen or read in the public media.

Further, responses to treatment are not only impacted by the current status of any or all of the above factors, but responses to treatment are also impacted by the presence or absence of those issues in the past (e.g., remote traumatic events; a history of substance abuse; etc.); or by the past experiences that friends or family members have had with different therapeutic modalities (if a friend did poorly on a particular anti-depressant medication, a patient may develop so much concern regarding the use of that agent that the anticipatory anxiety may

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paradoxically increase overall symptomatology to the point of completely sabotaging what might otherwise have been an effective agent).

Adding to the complexity, while controlled studies usually preemptively exclude subjects who are already receiving intervention through modalities not being measured (e.g., concurrent use other medications; often past use of certain medications; whether or not the patient is involved in psychotherapy while being prescribed the subject medication – or whether or not the patient is taking medication while involved in the subject psychotherapeutic intervention) – in reality, most patients present with a history of having received or being in the process of receiving other interventions, which clearly may impact the effectiveness of the “new” intervention being considered.

Additionally, unlike other areas of medicine, the manner, interpersonal style and characterological traits of the *treating practitioner* often come into play – especially in regards to psychotherapeutic intervention or counseling, but also in the prescription of psychotropic medications, wherein the presence or absence of interpersonal confidence or trust in the treating practitioner may have an immediate impact upon the affective state of the patient, which will in turn impacts how the patient responds to the specific treatment modality being used.

Thus, using a symptom-based and diagnosis-focused “evidence-based” treatment guideline, which derives mental health treatment strategies in a linear manner based only upon descriptions of symptomatology and DSM diagnoses, provides at best a crude approximation of optimal treatment, which ignores many potentially significant variables. Such an approach can be useful in the *temporary suppression* of certain acute symptomatology, but it is an approach that will inevitably be at best inefficient and quite possibly counter-productive in developing a plan for the comprehensive treatment of underlying pathology and resolution of emotional conflicts. Such an approach can be useful to some extent for treating those patients who fall in the “middle of the bell curve” of the overall population, but there will be a very large percentage of “outliers” – who may, in fact, constitute a majority of patients – who will be poorly served by an overly concrete and mechanistic approach essentially developed through use of statistical methods (averages and standard deviations).

The thesis being presented is that the comprehensive treatment of psychiatric disorders cannot be accurately determined by a linear approach. Psychiatric disorders are not the result of straightforward and linear causes; responses to mental health treatment interventions are complicated by an extremely complex array of interdependent variables. Using a mathematic model, the solution to the problem of devising a psychiatric treatment protocol is not akin to solving a linear algebraic equation (“If this, then that...”), but rather, devising effective mental health treatment protocols is closer to the solution of a non-linear equation, which can only be modeled by partial differential equations which result in probabilistic predictions, which carry an inherent degree of uncertainty.

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Thus, guidelines for mental health treatment need to be constructed so that they have the flexibility to take into account non-traditional contributory factors – a vast array of combinations and permutations of inter-related variables that defy concrete categorization; and the course of treatment will need to be able to be revised and reconsidered throughout the intervention, as additional data emerges which goes beyond descriptions of symptomatology and DSM diagnoses. It must be acknowledged that there will be data and information that can be detected by a skilled practitioner during the course of evaluation and treatment, but may be so unique to an individual patient, that the factors being considered are not amenable to controlled evaluation and study in a large population of patients.

The proposed study intends to devise a clinically appropriate systematic approach to psychiatric evaluation and determination of guidelines for provision of mental health treatment that takes into full account all of the complexities present, making use of a sophisticated approach to evaluating a non-linear process involving multiple dependent and independent variables on an on-going temporal basis (as opposed to relying on the gross approximations afforded by static and linear “evidence based medicine” flow-chart type guidelines). This would include obtaining historical databases which go far beyond symptom inventories; standard initial use of psychological testing (such as the MCMI) to provide at least provide a “snap shot” of contemporaneous psychological defenses/characterological traits; with provision for obtaining additional data during the course of treatment (data not limited to symptomatic responsiveness). The end point would not be a specific prescribed course of treatment, but illumination of a probabilistic modeling of the possible effectiveness of different treatment strategies – an **Evidence-Based** evaluation of the inherent **Uncertainty** of mental health treatment.

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Discussion:

“Uncertainty” refers to the fact that the future may bring unexpected events – events which may range between being positive and very satisfying or being negative and disastrous. Uncertainty creates anxiety, and whether via mythology, self-deception, delusion or intellectual pursuits (gathering data and applying logic and reasoning) it is natural to attempt to decrease uncertainty by make predications regarding the future and then pursuing actions which may impact, change or control impending events. Obviously, being able to reduce uncertainty and impact future has practical advantages; equally as obviously, reducing uncertainty can offer relief from uncomfortable emotions. Reducing uncertainty is a basic human desire and task which takes shape early in childhood, “By learning how to predict response acutely, the child learns to control or even ‘select’ his own environment. He uses certain information with which to elicit responses; he can now seek our certain responses and avoid others.”^(1 Beire) To develop a method that reduces uncertainty and that holds promise of organizing what might otherwise seem chaotic is practically and emotionally attractive – attractive at times to the point of intoxication; intoxication that induces the belief that future events can be magically controlled.

Primary to the practice of medicine – and psychiatry/psychology – is the desire to be able to predict the response of a patient who is suffering an illness or disease to a specific intervention or treatment. The more accurate the ability to predict that response, the more that uncertainty is reduced and efficiency and efficacy is improved.

EBM aims to (applying the language quoted above), “use certain information” to provide efficient and effective medical care, i.e., to reduce the degree of uncertainty in the practice of medicine. Parenthetically, I have always been a bit perplexed by the rather idiosyncratic use of the word “evidence” in the term “EBM” – using the term “evidence” as opposed to “knowledge” or “wisdom”. At least in a court of law, “evidence” comes in many different flavors: “evidence” may derive from careful experimental studies; detailed investigation, observations by witnesses, “circumstantial evidence” or even hearsay. “Evidence” may be objectively accurate, sincere but misinformed and inaccurate, or the product of intentional deception. The current milieu has raised the word “evidence” to a position of veracity that it truly does not deserve. But that is not the issue I wish to address.

Within this presentation I offer various citations from the literature – almost all decades old. This is intentional, to underscore the fact that the wisdom contained in these quotations has never been scientifically refuted or disproved, or even undermined or negated by “more advanced” theory regarding psychopathology and mental health treatment. Rather, it is my contention that the premises of EBM simply ignore and deny existing knowledge.

It is my position that in applying the principles of EBM to psychiatry, there exists a serious conundrum when it is appreciated that in reality, acquiring, evaluating and analyzing all of the available “evidence” leads to the conclusion that **there is a degree of uncertainty regarding application of treatment modalities that is inherent and unavoidable** and which is based

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upon processes that are so complex that *past a certain point*, the harder one tries to “fit” the data into a nice, neat, linear system that produces an algorithm or flow-sheet to guide treatment, the more *inaccurate* predications become and uncertainty actually increases and efficiency and efficacy are decreased. In fact, past some basic general guidelines, efficiency and efficacy are better served by application of unquantifiable experience-based knowledge and wisdom, as opposed to the results of carefully controlled “studies”.

This is not a phenomenon unique to psychiatry. Even in the application of rather straightforward medical decisions, such as determining which antibiotic should be used to treat a particular infection, there will be patients who are “non-responders” for reasons eventually known or never fully understood. Obviously within the field of physics, Heisenberg’s Uncertainty Principle is proven fact – the more information you know about one aspect of an object (e.g., position), the less information you can ever learn about another aspect (momentum). According to Louis de Broglie, “Quantum mechanics... provides no more than laws of probability; it considers these laws of probability as having a primary character and constituting the ultimate knowable reality.”⁽²⁾ The failure of EBM to fulfill the hopes – or intoxicated expectations – of certain medical researchers, statisticians, insurance companies and governing agencies should not be seen as surprising, but actually, highly predictable. Unfortunately, those of us on the frontline of psychiatric treatment know this to be a fact; those in ivory towers “managing care” and performing “utilization review” in my opinion, remain self-servingly intoxicated. This is not to imply that all supporters of the current EBM schemata are pernicious or disingenuous – some are well meaning, but naïve. They hold on to expectations of improving medical efficiency with all sincerity and good intentions, maintaining the dream of a medical system which reaches the heights of efficiency through reliance on data derived from controlled studies. As in psychoanalytic theory, dreams represent formation of a compromise between conflicted desires – the dream is not the endpoint of satisfaction of all our wishes, but rather, the point at which internal conflict resolution actually *restricts* our ability to fully wish and desire freely; as in the less scholarly words of The Moody Blues song, “The Voice”⁽³⁾, “Each and every heart, it seems, is *bounded* by a world of dreams.” Idealistic dreams can provide wonderful motivation – but can at the same time erect destructive limitations.

In fact, we have known it for quite some time, and sadly, even published wisdom is being discarded without any logical refutation. Writing regarding the process of psychotherapeutic intervention, Singer wrote, “There is little doubt that in an era which has witnessed spectacular advances in technology, men (therapists and patients) look with hope to a machine model of man... [finding] some false comfort in an image of non-humanness and unrealistic, irrational hope of being made a more efficient machine.”⁽⁴⁾ If this statement can be applied to the practice of psychotherapeutic intervention, it can be applied exponentially to reliance upon psychopharmacology. Again quoting Singer, “The capacity to leave familiar ground and to stand uncertainty is precisely a quality so frequently missing in individuals who may, on first sight, appear intelligent and capable of understanding but who, upon further investigation, reveal that whatever natural potential is at their disposal is put into the service of avoiding the new, the unexpected and the unfamiliar.”⁽⁴⁾ Proponents of EBM can learn from the statement of Unger,

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“Nothing harms science more than the denial or the trivialization of enigma: though the prudence of the ‘sensible man’ is to be surprised by nothing, the power of the thinker is to be surprised by everything.”⁽⁵⁾ Or Bursztajn, “We are all, to some degree or other, afraid of uncertainty... when faced with uncertainty, we become anxious, most of all when our lives are on the line. We are tempted to retreat into a false sense of certainty, which affects our ability to make decisions... But we cannot make wise decisions when we deny ourselves the benefits of conscious awareness of uncertainty.”⁽⁶⁾

The first step in exploring any scientific field is to describe and define observable variables. In evaluating psychopathology, the most obvious variables are *symptoms* – dysfunctional alterations of affect, cognition and/or behavior. By and large, psychiatric diagnosis is still heavily if not exclusively based upon patterns and complexes of symptomatology. However, valid scientific research has established the presence of contributory factors (i.e., variables) which cannot be considered symptoms, are not spontaneously described or reported by patients who are attempting to communicate their distress (nor by third parties who might be discussing the problems they have observed), and cannot be observed by direct examination (i.e., require laboratory studies or are beyond objective measurement and quantification). Such factors include concentrations of naturally occurring biological chemicals, present in different quantities (or absent) in different parts of the body (or the brain), e.g. neurotransmitters, hormones, enzymes, oxygen saturation, metabolic waste products, inflammatory responses, etc.; externally introduced psychoactive agents such as medications (psychiatric, such as anti-depressant medications or non-psychiatric such as medications used to treat pain, infection, metabolic disorder, hypertension, hypercholesterolemia – the list can go on for many pages); psychoactive components of foods – caffeine, glucose, herbal compounds, etc.; or illicit psychoactive substances (alcohol, marijuana, amphetamines, etc.) On a deeper level, there are factors which impact the ultimate presentation which may represent genetic or epigenetic influences upon biological processes. Beyond the biochemical realm, there is the possibility of structural factors (e.g., congenital malformations, injury, degenerative processes).

But it (should) go without saying that human beings are social animals and are significantly impacted by interpersonal relationships, most significantly during developmental years, but continuing throughout life. Even in the absence of severe dysfunction or overt trauma, relationships with parents, siblings, caretakers, teachers, peers, friends, competitors, enemies, occupational associates all can acutely or permanently impact affect, behavior and even modes of cognitive functioning. Additionally, experiences of trauma (physical or emotional) can contribute to psychiatric symptomatology acutely or chronically on a psychological basis, on a neurophysiological basis, or even (as is becoming better understood) on an epigenetic basis.

Extended to a wider sphere of influence, affect, behavior and cognitive functioning are impacted by socioeconomic and sociopolitical events (even if they are not acutely traumatic, such as in wartime) – financial status, occupational status, political repression, all manners of discrimination and bigotry can impact affect, behavior and cognition and/or the response to indicated treatment interventions.

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In turn, all of these external factors are mediated by *perception*, which itself is dependent upon the integrity and accuracy of: sensory organs (internal sensing of bodily functions as well as perception of external events), cognitive integration, constitutional aspects of temperament, etc.

We also cannot neglect the impact of learned patterns of reaction – referring to reactions based in formal academic “learning”, expectations and reactions based that are “learned” through unique personal experiences (which may or may not be accurately generalized) as well as patterns of physiological, psychological and/or behavioral response which may be the result of intentional or opportunistic behavioral conditioning within the environment. This realm of variables also extends to the impact upon psychological functioning of the development (or lack of development) of a personal philosophy of life – philosophical, religious, political, cultural, etc.

The complexity of the situation is manifest by the fact that with any given complex of symptomatology, some or all of the above “variables” (which are certainly not all-inclusive) may play a prominent role in the development of the pathology or dis-ease, or even if not etiological factors, they may play a significant role in determining an appropriate and effective treatment protocol. For example, on a very basic level, regardless of the nature of the pathology present, the degree of trust and expectation of competence a patient has in a specific practitioner, in the practice of psychology/psychiatry in general, or in the administration of psychotropic medications (in general or regarding a specific agent) may significantly affect the patient’s compliance with any specific treatment regimen being instituted (*regardless* of the data that has been collected regarding the efficacy of that intervention in patients with the same pathology *who are willing to be compliant*). Simply put, an “evidence-based protocol”, supported by volumes of accurate research based upon symptomatology and demographic data, is *useless* in a non-compliant patient – but that does not imply that the patient is “untreatable.” Rather, it indicates that there must be flexibility to employ a different approach which may be effective *in this particular patient* because of indirect variables (i.e., variables unrelated to specific symptomatology or biochemical substrates). Without consideration of those indirect variables, treatment approaches are likely to be misguided and ineffective.

The above discourse only scratches the surface regarding the number of contributory variables which may impact the presentation – and indicated treatment – for any particular patient (again, even patients with the same manifest “symptomatology”). This should, *a priori*, lead to the conclusion that there can be no linear algorithm or flow-sheet that can definitively guide treatment *regardless* of the amount of symptom-based study that has been conducted. Even assuming the honesty, objectivity and credibility of the researchers (which recent events clearly call into question), when one explores the population upon which many of such symptom-based studies are conducted – which, due to practical realities, usually pre-selects for persons from within a rather narrow band of psycho-social circumstances who are willing to take part in a clinical study – the “roughness” of the approximation constituted by any “evidence-based” guidelines becomes even more apparent.

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Yet complexity does not end with the quantity of variables which impact psychopathology and mental health treatment. It must also be recognized that *even if all such variables are identified*, which obviously is impossible, these are not independent variables. Many of the variables are inter-related and dependent upon each other.

For example, consider the magnitude of interconnected contributory factors in the following rather simple (and not unusual) scenario: a family member suffers from a significant medical (or psychiatric) illness; the treatment being provided for that illness is not as effective as might optimally be hoped for; the illness results in disability which results in family financial problems; financial problems lead to interpersonal disputes; interpersonal disputes lead to some family members retreating into significant (or even minor) use of psychoactive substances (licit or illicit); the identified patient's ability to function effectively is negatively impacted by their home/family situation; the patient's self-esteem suffers due to their decreased level of functioning; the patient experiences both anger and guilt regarding relationships with family members involved in different aspects of this scenario; classical symptoms of anxiety and depression emerge; the patient's ability to obtain mental health treatment (and the types of interventions available) are dictated by the patient's health insurance policy, drug formularies and other financial constraints; the patient is prescribed an anti-depressant medication which a friend was prescribed (with positive or negative results) and about which they have information from advertising and other public media. Now – within the protocols of EBM, devise a “controlled study” which can take into account all of the above circumstances and provide sound advice regarding a well-constructed treatment protocol for this patient.

Now apply the same analysis to a situation where symptomatology not only includes anxiety and depression, but also aspects of paranoia/psychosis which seriously distort the perceptions and beliefs of the patient.

Now apply the same analysis to a situation where symptomatic *improvement* in the identified patient actually causes an increased level of destabilization within the patient's psycho-social sphere which then has a negative feedback impact upon the identified patient's life circumstances (e.g., a reduction in manifest symptomatology in the patient leads others to experience increased resentment, anger, a sense of isolation, loss of co-dependency, confrontation of substance abuse, etc.)

The reality is that in such situations – which are actually quite typical of patients seeking mental health treatment, whether psychotic or non-psychotic – it is impossible to consider each individual contributory factor, it is impossible to fully understand the individual relationships between the different factors such that **treatment of the manifest symptomatology, while aided by some *guidelines* that have reasonable *general* applicability, must also be modified by an understanding and appreciation of the entire gestalt of the patient's life circumstances.** That is, there must be an application of clinical wisdom based upon an exploration of the patient's history, academic knowledge and clinical experience which modifies the *generally applicable* treatment guidelines predicated upon the analysis of the many factors

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(that are not directly related to specific symptoms) that are prominently impacting the patient's condition at any specific point in time – and which of those many factors are most important may vary in various patterns over time. If the treating practitioner focuses only upon manifest symptomatology, a vast amount of significant data is being ignored, that will, with great probability, negatively impact the treatment outcome. If there is an attempt to definitively deconstruct the patient's situation into all component interrelated variables, the task becomes unrealistically arduous and interminable. What is necessary is a interpretive formulation or "reading" of the patient's presentation which implicitly takes into account as many of the contributory factors as possible, but cannot rely on the results of a "controlled study" to dictate definitive intervention (psychotherapeutic, psycho-social or psychopharmacological) at any specific point in time. Analogously, as described by Hofstadter, "There is no natural mapping from the individual letters (which make up a book) into the real world. If you wanted to describe the book, therefore, you would make no mention of the letter level, (but rather) describe the plot and the characters and so forth."⁽⁷⁾

Yet is that not what current EBM attempts to do – EBM ignores the plot and the characters and actually focus upon letters, words and grammar; and assumes that by introducing interventions which treat or "clean up" the syntax and vocabulary – a "healthier" book will arise. *All other things being equal*, improving syntax and vocabulary *probably can* improve the overall effectiveness of a book – analogously, simplistic cognitive-behavioral interventions along with prescription of psychotropic medications, in most cases, *probably can* reduce *some* of the manifest symptomatology; but show me a case where within the patient's life and history "all other things have been equal" – and then I will acquiesce to the effectiveness of an EBM-dictated protocol of mental health treatment.

Forgotten – and I must again point out, *not* disputed or disproven, but forgotten-denied, is wisdom such as that of Bloom, "With increasingly rare exceptions, it has been impossible to control illnesses without construing them in their biological, psychological and sociological contexts... The hope that the key to controlling the major, currently unpreventable, disorders lies exclusively in our biology seems not only illusory, but defies an overwhelming amount of evidence. Culture invades physiology and symptoms are an exquisite final common pathway of a complex, but ultimately comprehensible, interaction of biological, psychological and socio-cultural forces."⁽⁸⁾ If the science of physics was able acknowledge almost 40 years ago (and continue to understand) that "An elementary particle is not an independently existing unanalyzable entity. It is, in essence, a set of relationships"^(9 Stapp) should not "utilization reviewers" relying on EBM be able to acknowledge that psychopathology is not merely a collection of measurable symptoms leading to a specific diagnosis, but the product of an extremely complex "set of relationships" for which diagnoses are only useful approximations for superficially describing the problems of the patient presenting for mental health treatment. As had been summarized by Weissman, "The classical medical approach to causal explanation was to search for a single factor that would provide necessary and sufficient explanation... This mode of causal explanation has proved highly useful for infectious diseases, disorders due to

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nutritional deficiency and for many, but not all, hereditary disorders. However, it has not been successful with the chronic diseases of psychiatric disorders.”⁽¹⁰⁾

Within my clinical practice, I have had the opportunity to review many evaluations documented by other mental health professionals. Having been involved in the California Workers Compensation system for almost 20 years, I have had the unique opportunity of having performed over 10,000 medical-legal evaluations during which I not only personally evaluate the patient, but I am also usually given access to other evaluations, psychological testing data, often the patient’s complete medical file, as well as (not infrequently) third-party “investigative information.” This has provided me access to a wealth of information and data regarding psychopathology, the functioning of the medical system, and most significantly pertaining to this discussion, the nature of what is accepted as a “standard” mental health evaluation within the managed care/EBM environment.

It is distressing that many mental health evaluations do not include any psychosocial history or only include superficial demographic information. The report focuses upon – and diagnoses, treatment recommendations and medical-legal conclusions are based upon – the immediate history regarding the circumstances which led to the injury/illness and the presenting symptomatology. Even when an adequate psychosocial history has been documented (which is rare), in the vast majority of cases, that information is included essentially only for the “sake of completeness” or to “bulk up a report” and is totally neglected in providing a comprehensive case formulation regarding diagnosis and treatment. Very often psychological testing is administered, but probably 75% of the time, this is limited to symptom inventories which are of essentially no clinical value. In my opinion, these tests provide essentially no information beyond that obtained by merely asking the patient about his or her symptoms. They are more indicated for use by non-psychiatric medical personnel, for cursory evaluation and screening of a patient’s emotional status, rather than being at all useful when a comprehensive psychological evaluation is being performed. In fact, as described by Gold and Shuman “Self-administered tests and inventories, such as the Beck Depression Inventory... self-report lists of symptoms are not reliable indicators or evidence that the individual’s complaints and perceptions are valid... [and] do little more than to confirm high complaint levels...”⁽¹¹⁾ At times more in-depth psychological testing is administered, such as an MMPI or MCMI, but the results of those protocols, especially regarding personality characteristics and psychological defenses (i.e., Axis II traits), are almost never integrated into the final findings or recommendations. The most common diagnosis on Axis II is “deferred”, followed closely by “Personality Disorder, not otherwise specified”. It is rare that I have come across a case in which the mental health treatment being provided goes beyond simplistic cognitive-behavioral interventions and provision of “support”, instruction in “relaxation training” and/or “biofeedback”, and usually (but not always) psychopharmacological intervention – and when psychotropic medications are used, they are usually being prescribed by a non-psychiatrist or by a psychiatrist who sees the patient very intermittently (at most once monthly) and almost never with documentation of any integration of the psychopharmacological intervention with the supposed psychotherapeutic

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intervention. Further, since within the California Workers Compensation system, all mental health treatment is now subjected to “utilization review” – it is now ubiquitous that utilization review reports are produced (often by non-psychiatric physicians) which are based only on the primary diagnosis and brief progress reports supplied to the reviewer by the adjuster. The reviewer then overrides the recommendations of the treating practitioner by citing literature which is totally based upon superficial presenting Axis I symptomatology, and without any consideration of any personality issues, let alone any of the multitude of other factors and variables which I have discussed.

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Proposal:

I propose the undertaking of a study which can document the significance of the issues I have discussed, and measures the value of using EBM treatment criteria versus an approach which takes into full account all of the complexity of contributory factors in developing a treatment protocol that is individualized, appropriately flexible, and based upon an understanding that there is an inherent uncertainty in understanding and treating psychopathology that can never be totally resolved but requires constant evaluation, re-evaluation and adjustment of all aspects of a mental health treatment protocol (psychotherapeutic intervention, psychosocial and psychopharmacological).

Such a study of course would take into account the nature of acute symptomatology (not limited to lists of symptoms but descriptions of intensity, severity, chronicity, triggering factors and ameliorating factors). Usual explorations of the patient's psychiatric history and medical history would be included. Standard psychological testing (MMPI, MCMI) would be used to evaluate the rather typically-described Axis II personality traits would be administered. In addition, protocols could be established to obtain information from patients regarding the additional factors listed below, which are not generally described either in clinical histories or via an MMPI or MCMI. The information would be evaluated at different points in time during the course of treatment – there is no assumption that these factors are chronologically static. Statistical analysis of a multi-dimensional measurement of treatment outcome (symptomatic relief; return to productive functioning; avocational activities; status of social and family relationships; etc.) could then be compared between those patients who are evaluated and treated based upon the currently accepted EBM standards versus those who receive treatment which takes into account the additional data obtained; and/or statistical analysis could be performed correlating positive or negative treatment outcome using standard EBM protocols to the presence or absence of significant issues related to these variables (which are usually neglected).

The purpose of this study would not be to “measure” or quantify these variables, or to directly relate the variables to specific treatment strategies. I do not believe that would be possible or effective. Rather, the purpose of the study would be to establish the importance of *considering* these variables and integrating them into a global understanding of the patient and the patient's therapeutic needs. I propose that this would help in *guiding* the establishment of more effective mental health treatment but not in *prescribing* a particular or specific course of mental health treatment. In summary – a consideration of all pertinent “evidence” does not eliminate uncertainty but helps to address and manage the uncertainty that is inherent to mental health treatment.

I propose that beyond the “standard” psychiatric history, medical history and psychological testing administered under EBM procedures, the evaluation process should include exploration and description of some or all the following additional factors. These are not factors which are diagnostic of any specific psychopathology (Axis I or Axis II), these factors are not necessarily related to any particular diagnosis or pattern of

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psychopathology or symptomatology. However, these are factors of personal history, personal experience, general life circumstances, temperament, and personal philosophy which can impact the construction and implementation of an effective mental health treatment protocol *regardless* of the diagnosis or the specific nature of the pathology/symptomatology being treated:

- Evaluation of the patient's subjective perception of physical pain, emotional pain and feelings of imminent physical or emotional threat versus objective evaluation and measurement of those circumstances.
- Evaluation of the capacity for toleration of physical pain, emotional pain and feelings of imminent physical or emotional threat (before identifying an experience as being symptomatic or requiring intervention)
- Evaluation of the patient's expectation that they will be experiencing physical pain, emotional pain or feelings of imminent physical or emotional threat in the immediate future.
 - Evaluation of the patient's level of sophistication in the understanding of the internal and external causes of physical pain, emotional pain and feelings of imminent physical or emotional threat
- Evaluation of general frustration tolerance (before becoming disruptively angry, hostile, withdrawing, submissive and/or adopting a position of victimization)
- Evaluation of the willingness to act autonomously to seek relief versus expectations of passively and dependently receiving relief (from others, from institutions, from drugs, from God)
- Evaluation of the ability to objectively perceive sources of relief
 - Evaluation of experiences of fear, embarrassment, or humiliation which interfere with seeking or obtaining relief
 - Evaluation of the seeking of relief via looking for changes in external circumstances versus
 - seeking of relief via adopting improved coping mechanisms versus
 - seeking of relief through manipulating internal experience (withdrawal, denial, regression into fantasy, reliance on psychoactive chemical agents)
- Evaluation of the cognitive/intellectual ability to problem solve

EVIDENCE-BASED UNCERTAINTY

- Evaluation of educational sophistication regarding problem solving techniques
- Evaluation of confidence in autonomous problem solving (optimism versus pessimism)
- Exploring philosophical and ethical beliefs regarding methods of avoiding pain or anger and/or pride and mastery in tolerating pain and anger (seeking comfort versus appropriate toleration of discomfort versus masochistic endurance or exacerbation of pain; conflict resolution versus withdrawal versus aggression versus seeking of revenge)
- Predilections towards problem solving via:
 - trying to restore the previous level of homeostasis/stability (“get fixed”);
 - seeking subjective relief without making external or structural changes (symptomatic relief without responsibility for any making any changes);
 - seeking relief via cognitive/philosophical reframing (invoking bravery, meaningfulness, religious beliefs, nihilism, existentialism, etc.) but without changing behaviors or internal psychological structure;
 - attempting to effect behavioral and structural changes;
 - willingness to challenge one’s established paradigms and beliefs
- Evaluation of the capacity for empathy with others’ pain versus sadistic enjoyment of the suffering of others
- Evaluation of the capacity for experiencing guilt
 - reactions to guilt –
 - change and remediation, versus
 - denial, versus

 - self-punishment
- Evaluation of the commitment to being virtuous, and evaluation of the person’s personal definition of virtue

EVIDENCE-BASED UNCERTAINTY

- Evaluation of expectations “health” meaning the achievement happiness versus the reasonable pursuit of happiness (expectation to “Live happily ever after”)
- Exploration of the ability to make use of safe and culturally acceptable forms of humor and escapism
- Evaluation of expectations of providers of assistance
 - Trust in providers of assistance
 - Expectations of the usefulness non-personal methods of seeking relief (drugs, medications, “natural remedies”, non-pharmacological behavioral changes)
 - Impact of the experiences of friends, family members; information obtained from the media, word-of-mouth, advertisements, and/or social/religious/philosophical organizations upon expectations of different modalities of intervention
- Evaluating the impact on acute symptomatology and treatment of states of chronic or acute deprivation
 - emotional – e.g. loneliness;
 - physical – e.g., healthy food, medicine;
 - practical – e.g., comfortable shelter/living conditions;
 - general financial stresses;
 - lack of avocational interests/opportunities;
 - sociopolitical issues – e.g., repression, lack of opportunity, not speaking English
 - “Although little is mentioned about drive in the formal statement of the [behaviorists] theory it is implicit in the experimental manipulation; the typical experiment is undertaken after a period of food or water deprivation... Satiated animals are entirely too capricious to be trusted to behave properly in a Skinner Box.” ^(12 Eisenberg)
- Evaluation of any history of emotional trauma:
 - Perception of predictors of danger

EVIDENCE-BASED UNCERTAINTY

- objectively valid versus misperceived or misconceived fears
- experiences which trigger flight or fight responses or post-traumatic symptomatology

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