

# The Decline of Pharmaceutical Psychiatry and the Increasing Role of Psychological Medicine

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## Key Words

Pharmaceutical psychiatry · Psychological medicine ·  
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Psychosomatic medicine

## Abstract

The increasing influence of the pharmaceutical industry on psychiatric research and practice is leading to an intellectual and clinical crisis. A narrow concept of science attempts to apply oversimplified neurobiological models to the understanding and treatment of mental disorders, and relegates psychiatrists to a marginal role. This paper reviews some emerging trends of renewal that may be subsumed under the rubric of psychological medicine: use of a multidisciplinary approach, emphasis on psychotherapeutic strategies leading to self-management, reliance on repeated assessments, integration of different treatment modalities and independence from the pharmaceutical industry. The concept of psychological medicine, defined as the clinical application of the psychosomatic approach, may provide room for innovative paths in psychiatric research and treatment.

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This paper is dedicated to the memory of George Molnar, MD (1931–2009), whose outstanding clinical skills, research insights and moral integrity have shaped my first exposure to the clinical process.

## Introduction

The issue of conflict of interest has brought clinical medicine to an unprecedented crisis of credibility [1–3]. Corporate actions that have placed profit over public health have become regular news in the media. The public seems to be increasingly skeptical of the integrity of medical practice. Psychiatry is affected by the contamination of conflict of interest as much as other medical specialties [4], but its hard to define borders [5] make it more vulnerable to a loss of credibility and ideological attacks [6, 7]. These criticisms, however, do not entail relief to suffering and mental pain, whose importance for public health is getting increasing attention [8]. The aim of this review is to discuss the impact of financial interests on psychiatric research and practice, the inadequacies of current research and practice, and emerging trends of renewal that may be subsumed under the rubric of psychological medicine. Depression will be used as an illustration of the issues under consideration. Reference to pioneers of the concept of psychological medicine, who anticipated the current need of development in psychiatry 2 or 3 decades ago, will be made.

## The Rise of Pharmaceutical Psychiatry

The influence of the pharmaceutical industry on psychiatric research extends over several domains. The prevalence of situations of conflict of interest has progres-

sively increased. Cosgrove et al. [9] have addressed the issue of the financial ties with the pharmaceutical industry of the 170 panel members of the standard classification system in psychiatry, DSM-IV. Ninety-five (56%) had 1 or more associations with companies. The percentage reached 100% among members of the panels on mood disorders and schizophrenia, and was above 80% among members of the panels on anxiety and eating disorders.

Disclosure, despite journals' policies, is seldom performed (in less than 1% of published medical articles according to a study by Krinsky [10]). Failures to disclose financial interests led to the resignation of the leading author from the editorship of an important psychopharmacology journal [11], but not from other important positions.

In psychopharmacology, it has been repeatedly reported that studies sponsored by pharmaceutical companies were more likely to have outcomes favorable to the sponsor [12–15]. The marketing of drug treatments has revealed its potential in the overselling of psychotropic drug indications and the opportunistic 'rediscovery' of certain mental disorders [16]. As Carroll [17] had warned in the early 80s, while anticipating the rise in antidepressant consumption [18]: 'We strongly suspect that many patients who are simply unhappy or dysphoric receive these drugs, with predictable consequences in terms of morbidity from side effects, mortality from overdose, economic waste, and irrational, unproductive clinical management' [17, p 169]. Based on the evidence that attending sponsored continuing medical education events and accepting funding for travel or lodging are associated with an increased prescription rate of the sponsor's medication [19], marketing has been aggressive, particularly at meetings. In a study of all exhibit booths of pharmaceutical companies at the 2002 American Psychiatric Association (APA) convention, a total of 16 violations of the APA own exhibit rules was found [20]. Private companies have set campaigns to shape a favorable climate of opinion for their drugs. These campaigns take the form of commercially strategic clinical trials (which have been defined by Carroll [21] as 'experimercials'), journal publications that are 'infomercials' [21] and educational activities whose main aim is to sell the sponsor's message to the participant [4]. The game is clear: to get as close as possible to universal consumption of a drug, by manipulating evidence and withholding data. Two recent papers provide a good illustration as to how selective publication of antidepressant trials promotes their apparent efficacy. Thirty-seven of the 74 FDA-registered studies that were associated with positive outcomes were published and 1

was not, whereas only 3 of the 36 negative studies were published [22]. Not surprisingly, when all the data of clinical trials submitted to the FDA for the licensing of 4 new-generation antidepressants were analyzed, there were no significant differences between drugs and placebo except in the most severe cases [23].

Independent studies may yield misleading conclusions if they are associated with a certain type of press and inappropriate labeling. For instance, in the early 80s Gibbons and Davis [24] called attention to the fallacies of attempting correlations with longitudinal psychiatric data, which may lead to relate 'the price of beer and salaries of priests'. Nonetheless, Gibbons et al. [25], more than 20 years later, attempted to correlate decreased antidepressant drug use, following the FDA black box warning regarding potential suicidal ideation in children and adolescents, and the increased suicide rate in US adolescents. Despite a cautionary editorial [26], critical letters [27–29], subsequent evidence suggesting that treatment is probably too sporadic to affect overall suicide rates [30–32], and that important key factors such as unemployment might affect the rates [32], a superficial reading of the original paper by Gibbons et al. [25] may generate the idea that careful prescription of antidepressant drugs in adolescence may damage that patient population. An example of the importance of labeling may be provided by the use of the term 'antidepressant discontinuation syndrome' for withdrawal syndromes, which frequently occur with antidepressant drug interruptions and may entail important clinical implications [33, 34]. The labeling, which is free of negative associations and minimizes the phenomena, may lead the physician to misinterpret withdrawal reactions with signs of impending relapse. Prompt response to the reinstatement of antidepressant treatment may reinforce this conviction.

The rise of pharmaceutical psychiatry has found a most favorable climate in the progress of neurosciences. During the 1940s and 1950s, electrophysiology was regarded as the paradigmatic discipline in terms of which behavioral disorders would eventually be understood [17]. From the 60s to the 80s, psychopharmacology and psychoneuroendocrinology renewed these hopes. The progress of neurosciences in the past 2 decades has often led people to believe that clinical problems in psychiatry were likely to be ultimately solved by this approach. Such hopes are understandable in terms of massive propaganda operated by biotechnology corporations [35, 36], and reaction to a long prevalence of 'brainless' approaches [37].

An increasing number of psychiatrists are wondering, however, why the cures and clinical insights that neurosciences have promised have not taken place. Biological

reductionism [38] has resulted in an idealistic approach, which is quite far from the explanatory pluralism required by clinical practice. Kendler [38] has been an outspoken critic of this reductionism, cautioning, for instance, on the impact of individual genes on the risk of psychiatric illness [39].

### **The Decline and Inadequacies of Pharmaceutical Psychiatry**

A large amount of clinical research is derivative: methods are often applied in clinical studies simply because they have become available [17]. If the clinical problem itself is poorly defined and obfuscated by marketing strategies, the focus of neurobiological research is set for random effort and misunderstanding. There has been a progressive detachment of psychiatric practice from research [40]. The conceptual crisis of research in psychiatry stems from a narrow concept of science, which neglects clinical observation, the basic method of medicine [41, 42], and simply attempts to apply oversimplified neurobiological models to the understanding and treatment of mental disorders. Enhancing the benefits of research where clinical need is greatest, and not only where commercial opportunity is perceived, is a current priority of medicine [43]. However, such priority could hardly be achieved in psychiatry unless a critical examination and update of current paradigms is endorsed.

The fact that clinicians browsing a journal issue may no longer find any article relevant to their practice is a problem that is worthy of attention. In fact, part of the challenge and, at the same time, fascination of being a clinician lies in applying the scientific method to the care of patients and in understanding of disease [44]. Increased knowledge would result in significant benefits for the patients, and in a sense of continued development on the part of the physician.

The intellectual crisis in clinical research is not specific to psychiatry, but pervades all medical specialties [45–47]. Alvan Feinstein [45] attributed its main root to the decline of clinical medicine as the source of fundamental scientific challenges, which took place after World War II: ‘The preclinical sciences became detached from their clinical origins and were converted into “basic biomedical sciences” with goals that often no longer aimed at mechanisms of disease, with investigators who often had no clinical training or responsibilities, and with results that often had no overt relationship to clinical phenomena’ [48, p 216]. Clinicians were thus urged to apply

models derived from basic domains such as neurobiology and economics: ‘All the fundamental scholarly ideas come from elsewhere, and clinicians apparently have nothing important to contribute beyond their work in applying the basic ideas’ [48, p 217].

This intellectual crisis has been particularly detrimental in psychiatry. If ‘medical journals are an extension of the marketing arm of pharmaceutical companies’ [2] and corporate interests result in self-selecting academic oligarchies (special interest groups) that influence clinical and scientific information [4], one may wonder how can a clinician discern important information (‘Is the treatment effective and to whom shall I give it?’ or ‘What harm may I do by using it?’) [49] from the massive amount of propaganda delivered by medical journals and meetings. Nierenberg et al. [50] have illustrated how systematic biases in decision making induced by pharmaceutical companies occur in clinical psychopharmacology. As Healy [51] remarks: ‘Randomized placebo-controlled trials originated as efforts to debunk therapeutic claims, but the force field in which medicine is now practiced has transformed them into technologies that mandate action ... Where the placebo arms of antidepressant, anti-psychotic or mood stabilizer trials suggest we should not be using the drugs as readily as we do, the trials of these products, embodied in guidelines, have instead become a means to enforce treatment’ [51, p 200].

Therapeutic outcomes are always the result of several ingredients, which may be specific or nonspecific [40, 52–55]. Antidepressant drugs are therapeutic tools of modest efficacy in a setting characterized by the clinician’s full availability for specific times, the patient’s opportunity to ventilate thoughts and feelings, the development of a patient-doctor interaction and the perception of competent care [23, 52–54]. When these therapeutic ingredients are missing, drugs are unlikely to be superior to placebo [56], simply because drug-induced effects cannot be separated from other therapeutic ingredients. Efforts to study the role of nonspecific factors in determining the response to acute and long-term treatment have always been minimal. One may wonder what could be the consequences, in terms of economic waste, mortality and morbidity, of a clinical management by young generations of psychiatrists nurtured by evidence-biased psychiatry, meta-analyses, overselling of drug-related ingredients of modest efficacy and the neglect of other therapeutic factors [40].

The recent findings of the largest depression treatment trial, the STAR\*D, provide a dramatic illustration of the difficulties in recovering from depressive illness [57]. The aim of the trial was to apply the best pharmacological

strategies for obtaining remission in major depression. A sample of 3,671 patients was treated with citalopram in an open fashion: only 36.8% of patients were remitted [57]. Those who did not recover were submitted to 4 sequential steps involving switching, augmentation and combination strategies. The results were rather disappointing. The cumulative rate of remission after 4 sequential steps was 67% [53]. However, when sustained recovery (taking into account relapse rates while on treatment) was considered, the cumulative rate was 43% [58]. This means that strenuous efforts yielded only an additional 6% of sustained recovery, and indicates the failure of current pharmacological strategies in determining lasting remission in depressed patients [59].

Other studies had indicated the failure of mental health specialists to improve the outcome of depression in the primary care setting. Simon et al. [60] compared the 6-month outcome in depressed patients receiving antidepressant prescriptions either from psychiatrists or primary care physicians. The 2 groups showed similar rates of improvement in all measures of symptom severity and functioning. Similar results were obtained with the collaboration of primary care physicians and mental health consultants [61], implementation of clinical practice guidelines [62], and randomization to a relapse prevention program or usual primary care [63]. The findings indicate that the average depressed patient has no better chance of getting and remaining well with the psychiatric specialist than with his/her primary care physician.

### **The Emerging Role of Psychological Medicine**

An increasing body of evidence links the progression of several medical disorders to specific lifestyle behaviors [54]. Half of the deaths that take place in the USA can be attributed to 'largely preventable behaviors and exposure, such as tobacco smoking, obesity and physical inactivity' [64]. It is ironic that, while psychiatrists tend to view treatment and prevention of relapse of depression purely in pharmacological terms (as if it were a disease such as diabetes), diabetologists, as other medical specialists, emphasize the importance of nonpharmacological strategies [65].

In the past decade, several studies have supported the usefulness of cognitive behavioral strategies (including lifestyle modification and/or cognitive restructuring and increasing coping skills and/or promotion of psychological well-being) after successful pharmacotherapy for decreasing the likelihood of relapse during follow-up [66]; in

3 studies [67–69], the follow-up lasted up to 6 years. The rationale of this sequential approach was to utilize cognitive behavioral treatment resources when they are most likely to make a unique and separate contribution to patient well-being and to achieve a higher degree of recovery, since standard forms of treatment based on monotherapy seem to be insufficient for most depressed patients [70].

The data about the usefulness of evidence-based psychotherapy for obtaining lasting remission in mood and anxiety disorders [66, 71] have led to the funding and development of psychological treatment centers within the National Health System in the UK [72]. This landmark initiative offers a dramatic example of the relegation of the psychiatrist to a marginal role. In fact, in these psychological treatment centers, a senior nonphysician psychotherapist would make initial diagnoses and assign the patient to a junior therapist, who would be supervised, motivated and trained by senior therapists [72]. Psychiatrists would be elsewhere in the National Health System, with the task of administering drug treatment to the most severely ill patients, and would not be involved at all in the treatment of most mood and anxiety disorders.

Pharmaceutical psychiatry is indeed leading to a marginal role of the specialty in the medical system and to a perceived restriction of the psychiatrist's role to prescribing and signing forms, limiting opportunities to engage in the kind of integrated care that attracted many physicians to the field [73]. The need for a substantial renewal of psychiatry to counteract its decline is then more and more obvious.

The term 'psychological medicine' is currently used with different meanings, particularly in the UK, despite the presence of a well-established journal [74] and academic chairs. In a restrictive sense, it is used as a synonym of liaison psychiatry, to indicate 'the type of work practiced by psychiatrists based in general hospitals' [75, p 6]. A much broader meaning has been suggested by Kroenke [76]: the study and practice of the psychological aspects of medical assessment and treatment [77–79]. This definition of psychological medicine has considerable overlaps with that of psychosomatic medicine [54], which is more prevalent outside of the UK. Both definitions of psychological medicine emphasize the role of psychiatry in general medicine, and not vice versa, unlike psychosomatic medicine [54]. John Ryle [80], one of the most eminent physicians of the past century, argued that half of practical medicine is actually psychology, and viewed psychological medicine not as a medical specialty, but as an extension of the psychological vocation of the physician. Psychological medicine was inextricably

linked to medical ethics and to the physicians duty to patients, community, colleagues and science [81]. In 1976, Halsted Holman [82] argued against the increasing reductionism, which neglected the impact of nonbiological circumstances upon biological processes. The remarks of Holman [82] were one of the key inspirations of 1977 paper on the biopsychosocial model by George Engel [83]. Interestingly, of this highly cited paper, only the multifactorial frame of reference was generally referred to [84]. However, there were 3 innovative aspects which are still waiting for adequate consideration and underlie the concept of psychological medicine, which was indeed present in the Rochester group [44, 85].

The first was the dangerous connection between medical reductionism and the financial aspects of medical research and practice, which would have been later subsumed under the rubrics of conflict of interest and special interest groups [4]. Engel criticized medical schools which 'have constituted unreceptive if not hostile environments for those interested in psychosomatic research and teaching' and medical journals which 'have all too often followed a double standard in accepting papers dealing with psychosomatic relationships' [83, p 139].

The second issue was his unified concept of health and disease [86]. Positive health is often regarded as the absence of illness, despite the fact that, half a century ago, the World Health Organization defined health as a 'state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' [87]. Ryff and Singer [88] remark that, historically, health has been equated with the absence of illness rather than the presence of wellness. As a result, assessment in psychiatry is mostly based on appraisal of psychopathological dysfunction, instead of a balance between positive and negative affects. If treatment of psychiatric symptoms induces improvements in well-being (subscales measuring well-being are more sensitive to drug effects than subscales describing symptoms [89]), it is also true that changes in well-being may affect the balance of positive and negative affects [40]. Not surprisingly, the relevance of current epidemiological studies for identifying the potential for breakdown in the apparently healthy individual has been questioned [90]. Ryff and Singer [88] suggest that the absence of well-being creates conditions of vulnerability to possible future adversities, and that the route of recovery lies not exclusively in alleviating the negative, but in engendering the positive. However, there has been very little research effort in this direction [91, 92]. Diagnostic criteria set a threshold whereby psychiatric disorders can be identified and differentiated. Symptoms that do not reach

such a threshold may be discarded, whereas there is increasing evidence on the high prevalence and prognostic value of residual symptomatology and on the potential benefits, in terms of long-term outcome, of achieving a higher degree of remission [70].

The final major innovative aspect of the model of Engel [83] was the fact that all diseases, whether placed in the medical, surgical or psychiatric domains, require a comprehensive and multidisciplinary approach. As Kroenke [76, p 1537] commented 25 years later: 'neither chronic medical nor "psychiatric" disorders can be managed adequately in the current environment of general practice, where the typical patient must be seen in 10–15 minutes or less. The quick visit may work for the patient with a common cold or a single condition, such as a well-controlled hypertension, but will not suffice for the prevalent and disabling symptoms and disorders ...'. The increasing awareness of the issue of comorbidity in psychiatry [93, 94] and medicine [95, 96] is a good reminder of this complexity.

The concept of psychological medicine, defined as the clinical application of the psychosomatic approach [54, 83, 84], may provide room for innovative paths in psychiatric research and treatment. It is not a prerogative of psychiatrists, but encompasses clinical activities of other physicians (internists, family doctors, etc.), psychologists, social workers, nurses and practitioners of other medically aligned disciplines. As such, it emphasizes multidisciplinary team work for treating mental disorders. Fava et al. [73] outlined a new model of a mental health clinic based on the concept of psychological medicine. The basic unit would consist of a psychiatrist, an internist and 4 clinical psychotherapists, who may provide evidence-based psychotherapy after the initial evaluation by a psychiatrist.

Psychological medicine derives its identity from several converging developments over the traditional psychiatric approach. In the current psychiatric model, which is endorsed in many contexts worldwide, a diagnosis and treatment plan that are usually formulated after a single initial visit are supposed to be followed in the subsequent months or years without any additional time for reevaluation. This approach is based on a unidimensional cross-sectional view of the disorder, as the one entailed by the DSM, assuming that the illness does not evolve and the diagnosis does not change over time. However, it is not uncommon for apparently clear-cut major depression to be rediagnosed as bipolar disorder [97–99] because the prodromes of the manic episode were overlooked or masked at the initial assessment. Psychological medicine

thus relies on repeated assessments, in line with the European tradition of psychopathology [100], from various viewpoints (including medical evaluation) [59, 101]. Further, it recognizes that for most patients a single course of treatment is insufficient for yielding adequate improvement, and that different combined or sequential approaches may be necessary. The psychiatric paradigm still endorses the conviction that psychotropic drugs work by acting on a disease process, which the propaganda translates into 'curing' psychiatric disease. However, there is substantial evidence to call such views into question, including nonspecific effects, studies with healthy volunteers and animal tests [23, 59, 102]. Moncrieff and Cohen [102] advocate a drug-centered model that would place more emphasis on subjective experience, developing outcome measures addressing particular behaviors rather than disorders, overcoming the distinction between therapeutic and adverse effects, and evaluating patients' comparative preferences for different types of drugs in various situations. The placebo response appears to be a much more complex issue than it is currently assumed in psychiatry [103], and its exploration may yield new insights.

The psychosomatic concept related to the biological effects of psychological methods [37] has found an increasing body of support from studies exploring the neurobiological correlates of psychotherapy [104]. Psychological medicine relies on the mobilization of healing forces in the sufferer by psychological means, including psychotherapy [105, 106], and is thus in line with the increasing appreciation of self-management in chronic medical diseases [76, 82] and psychiatric disorders [107–109].

A final characteristic of psychological medicine lies in its humanistic and ethical standpoint, as exemplified by eminent physicians such as Alvan Feinstein [48], John Ryle [80, 81], Halstead Holman [82], George Engel [83] and Robert Petersdorf [110]. The supporters of the concept of psychological medicine should follow those standpoints, and be devoid of a 'substantial conflict of interest', as recently defined [4].

## Conclusions

It is difficult to disagree with the statement that there is 'no health without mental health' [8]. However, if mental health is the type that is purported by pharmaceutical psychiatry (i.e. the increased consumption of psychotropic drugs), it would be justified to endorse the statement of Melville's *Bartleby*: 'I would prefer not to.'

Tinetti and Fried [111] have argued that the time has come to abandon disease as the focus of medical care. The notion of psychiatric disease is also not in line with the changed spectrum of health and the complex interplay of biological and psychosocial factors [40, 102, 111]. Pharmaceutical reductionism leads to undertreatment, overtreatment or mistreatment, and does not entail a solution to the complexity of clinical situations. The concept of psychological medicine may renew the psychiatric field and provide 'the wisdom to venture off the beaten path of exclusive reliance on biomedicine as the only approach to health care' [83, p 135].

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