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This article examines how the biomedical industrial complex has ensnared social work within a foreign conceptual and practice model that distracts clinical social workers from the special assistance that they can provide for people with mental distress and misbehavior. We discuss (1) social work's assimilation of psychiatric perspectives and practices during its pursuit of professional status, (2) the persistence of psychiatric hospitalization despite its coercive methods, high cost, and doubtful efficacy, (3) the increasing reliance on the *Diagnostic and Statistical Manual of Mental Disorders* despite its widely acknowledged scientific frailty, and (4) the questionable contributions of psychoactive drugs to clinical mental health outcomes and their vast profits for the pharmaceutical industry, using antipsychotic drugs as a case example. We review a number of promising social work interventions overshadowed by the biomedical approach. We urge social work and other helping professions to exercise intellectual independence from the reigning paternalistic drug-centered biomedical ideology in mental health and to rededicate themselves to the supportive, educative, and problem-solving methods unique to their disciplines.

According to the National Association of Social Workers (NASW), clinical social workers mainly focus on "the mental, emotional, and behavioral well-being of individuals, couples, families, and groups," are essential in settings such as health centers and hospitals, substance use treatment programs, schools, agencies for children or the aged, employee assistance programs, and private practice, and "represent the largest group of behavioral health practitioners in the nation" (2005, p. 7). Based on data from the U.S. Bureau of Labor Statistics (2010) and Whitaker and Arrington (2008), one can estimate that approximately 40 percent of the 642,000 social workers in the U.S., or 255,000 individuals, practice clinical social work.

Over the past three decades, the medicalization of distress and misbehavior has exploded. In professional and popular forums, problems previously attributed to environmental, social, and personal factors—such as poverty, disintegration of family and community, grueling work, and abusive or neglectful childhood—have been increasingly attributed to brain dysfunctions stemming from as-of-yet-unconfirmed genetic and chemical defects (Conrad, 2007; Moynihan & Cassels, 2005). Some studies suggest that social work

education and practice shifted from understanding how personal-historical-ecological-contextual factors may bring about behavioral problems, to viewing severe distress and disability as manifestations of biological diseases defined by the successive editions of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) (Lacasse & Gomory, 2003). The shift is accompanied by clinical social workers' use of descriptive psychiatric labels as explanations for their clients' problems (Frazer, Westhuis, Daley, & Phillips, 2009) and, in academic social work writings, by an apparent acceptance and a dearth of critical analyses of the worth of psychotropic drugs (Cohen, 2010). For certain authors, some of these developments indicate that clinical social workers are appropriately "making research based assessments of mental illnesses etiology" (Walsh, Green, Matthews, & Bonucelli-Puerto, 2005, p. 43). We argue otherwise in this paper, suggesting that the redefinition of the causes of disturbing behavior along the lines of current psychiatric practice is part of a larger ideological and institutional project that is only loosely tied to science, and that it has narrowed the options of clinical social workers and other helping professionals.

Professional validation and survival might appear as motives

for clinical social work's turn to the view that serious distress, psychosocial disability, and misbehavior are manifestations of somatic problems requiring primarily medical solutions. In this era of relative retrenchment of federal and state spending away from human services and toward health care (Bielefeld & Chu, 2010), the activities of social workers would continue to benefit from official standing and public and third-party funding within the biomedical-industrial complex and existing welfare state.

When Relman (1980) introduced the phrase "biomedical industrial complex" to echo President Dwight Eisenhower's famous 1960 warning about the influence of the military-industrial complex, he wished to emphasize the influence of large corporations on the medical system. Later writers, focusing on its psychiatric portion or counterpart and emphasizing its ideological elements such as medicalization, described a mental health-industrial complex (Duhl, Cummings, & Hynes, 1987), a psychiatric-industrial complex (Carpenter, 2001), or a psychopharmaceutical-industrial complex (Breggin, 1997; Murray, 2009). In accord with these authors, we mean the reinforcing and interlocking connections between the pharmaceutical, biotechnological, and medical industries that—together with academic experts in the helping professions, governmental funding and regulatory bureaucracies such as the National Institute of Mental Health (NIMH) and the Food and Drug Administration (FDA), and professional and family lobbies—promote and support a biomedical model of psychosocial distress and disability. Spending in the U.S. on mental health and substance abuse has been forecast to reach \$239 billion by 2014, of which \$72 billion is expected to be for psychotropic drugs (Levit et al., 2008).

Critics of the biomedical complex observe that over the past fifty years it has monopolized mental health practices to the detriment of its ostensible beneficiaries. Its primary purpose seems to be "biomedical dominance" (Carpenter, 2001, p. 70), the successful inculcation of the view that a medicalized approach (conceptual, scientific, clinical, institutional) to psychosocial distress, disability, and disapproved behavior is valid and is the best approach for everyone. Critics document that the approach obscures the differential benefits accruing especially to the leading players, theorized in most discussions to be large private corporations (especially but not exclusively pharmaceutical) and their allies in politics, the professions, and academia. These benefits translate into money, and therefore influence to recast all the issues involved, "to the extent of altering public perceptions as to what is occurring and why" (Turnock, 2009, p. 136). Some policy analysts have noted how heads of corporations benefit lavishly but illicitly from the biomedical industrial complex (e.g., Cassels, 2009), and at least one clinician (Murray, 2009), has argued that the psychopharmaceutical-industrial complex leads many clients to adopt and internalize "disease-model messages ... in ways

similar to cult indoctrination" (p. 283), that is, impervious to evidence and experience. These observations illustrate the complexity of the system, they are not meant to promote a conspiracy theory type of explanation. Our use of psychiatric-industrial complex and associated terms is meant to re-focus attention of social workers on the explicit and implicit functions and on the dynamic nature of a very large social system, and of their roles in it. It is also meant to highlight interconnections between the constituent ideologies, professions, client populations, treatments, and institutions of the system, as well as connections between it and other large systems, such as criminal justice, welfare, education, and the military.

This paper's purpose is to examine and critique the biomedical industrial complex's power to define the nature, causes, and responses to psychosocial distress, disability, and disapproved behavior as physical diseases. It also posits that this unopposed authority threatens the well being of distressed persons and suppresses innovative solutions to the perennial challenge of disturbing behavior that might not comport with this belief. Social workers delivering clinical services by and large have sought to align with and assimilate within psychiatry's explanatory framework without carefully analyzing its assumptions and outcomes. We think this has led to a loss of intellectual and practical independence among social workers. In the hope of spurring readers to scrutinize existing systems of care and their compatibility with the values of social work, we review clinical social work's ancillary role to psychiatry and critically discuss the contemporary functions of the psychiatric hospital, of the DSM, and of psychoactive medications as elements in the modern psychiatric-industrial complex. We conclude by offering suggestions for social workers and other professional helpers considering employment or currently working in mental health systems. In this paper we do not report new original research but rather synthesize and analyze research and evidence culled from the publically available mainstream literature. We are puzzled that we have not found previous academic social work publications highlighting the enormous threat that, in our judgment, scientifically untenable claims of the psychiatric-industrial complex present to both the well being of our clients and to the professional independence and effectiveness of clinical social workers.

When we use terms such as mental disorder and mental illness in this paper, we simply refer to the many different behaviors that have become the targets of the mental health care system. We imply no agreement with the idea that these problems are at root biological, that they represent distinct clinical entities as characterized by the DSMs since 1980, or even that they should be separated conceptually as psychopathology from the rest of problems in living. We think that they include at least two broad types of problems that should be distinguished, although people often manifest both

simultaneously. On the one hand, there is *distress*: usually situational, life stage related difficulties in coping with life's demands that manifest as impairments in personal or interpersonal functioning, and for which people seek or accept help. On the other hand, there is *misbehavior*: deviant, offensive or socially disruptive behaviors that mobilize social groups to restrain the uncooperative individual. Failure to distinguish between these two categories and the differential societal response to each, conflates the perhaps empirically irreconcilable dual mandates to help clients and protect society under the single rubric of "mental health practice." This category mistake of not distinguishing therapeutic engagement from coercive police or managerial authority has long been a cause of ethical dilemmas faced by public psychiatric social workers. It also fits with the recent patterns of transformation of the psychiatric-industrial complex following the downsizing of the large state mental hospitals during the 1970s and beyond.

Social Work's Historical Alliance with Psychiatry

When a shift occurred from the universal explanatory paradigm of religion to that of science in the 17th and 18th centuries, American society also began to view dependence and charity more rationally and critically and by the 19th century took "steps toward a science of social welfare and a profession of social work" (Leiby, 1978, p. 43). This paralleled the development of almshouses, reformatories and hospitals as more humane and efficient institutions to deal with dependent populations, including the insane. The first almshouse in America was built in Boston in 1662, the first hospital in Philadelphia in 1752, and the very first hospital exclusively for mad people in Williamsburg, Virginia in 1773 (Grob, 1973).

The development of insane asylums took a sharp turn in the mid 1800s, when Dorothea Dix, a social reformer appropriated as a pioneer both by social work and psychiatry, championed the creation of state-run institutions for the insane as alternatives to detaining them in penal institutions. Building upon her claim that insanity was "as curable as a cold or a fever" (cited in Scull, 1981, p. 156) if managed according to the principles of moral treatment (a combination of detention, labor, and re-education), she aggressively lobbied state legislatures for funds to build public insane asylums (Lightner, 1999), and 32 state mental hospitals were founded or enlarged as a result of her efforts (Leiby, 1978). Historians agree that Dix "was not above employing exaggerated rhetoric or embellishing facts" (Grob, 1994, p. 47) and that her statistics were inaccurate and unreliable (Rothman, 1990). Gollaher (1995, pp. 434-437) has shown how some then contemporary critics could be withering of the asylum movement and of Dix's uncritical promotion of it. The mostly well-intended actions of Dix and her allies, the emerging 19th century medical

superintendents of insane asylums, and the uses they made of data are early examples of reforms and paradigm shifts in mental health justified on the basis of largely (but not universally) uncritically accepted outcome claims made by social reformers and others to gain or extend professional turf (Abbott, 1988).

Eventually, any therapeutic value of moral treatment and its environment, the asylum, could no longer be sustained. When Dix began her campaign in the early 1840s, less than 3,000 people lived in public and private asylums. Fifty years later there were 74,000 residents just in the public facilities (Whitaker, 2002). The latter population grew to consist of the mad, the syphilitics, the alcoholics and the senile elderly, inexorably turning the system away from curing to warehousing. This development paralleled the medicalization of these institutions (Whitaker, 2002, ch. 2).

It is well known that "social work is one of society's tools for securing conformity and controlling deviant individuals and groups" (Hutchinson, 1992, p. 126). Psychiatry, however, has been the prominent profession for these social management purposes. Much like psychiatry, social work from its origin focused on social pathology and used paternalistic interventions. Both groups skirmished with neurologists and the nascent applied psychologists in the early 20th century for professional control of "the Personal Problems Jurisdiction" described by Abbot (1988, pp. 280-314). Both groups had no genuine scientific techniques of their own, but psychiatry won out because, on the basis of its historical identification as a medical specialty, it drew upon the age-old tradition and emerging breakthroughs of physiological medicine. More important, by using coercion and detention and defining them as treatment, psychiatry acquired an indispensable function in mutating societies increasingly based on the rule of law: the extra-legal incarceration of the insane and adult dependent populations—a management function that has remained intact to this day. In this endeavor, clinical social workers were relegated to being psychiatry's "handmaidens" probably because most practitioners were women and, as Abraham Flexner told them in 1915, lacked sufficient educationally transmissible techniques and individual responsibility in their work to qualify as professionals (Trattner, 1979).

The effort to become a full fledged profession provided incentives for social work to value its association with psychiatry and to utilize the latter "as an important working model and standard of comparison" (Lubove, 1965, p. 55). One can imagine that pioneer social workers did not wish to be *psychiatrists* and anticipated a rational, scientific *social work* profession whose practitioners worked for the moral, physical, and social betterment of deprived individuals, families, and groups. But it is difficult to imagine that they could look elsewhere than to psychiatry—with its mix of authoritarianism, history taking, advice giving, and medicalesque language—for example as they sought professional status. The alignment

provided both a semblance of scientific approach to enhance social work's hoped-for professional clout, and actual settings that could hire social workers. But it also led to social work's subordination to psychiatric authority and to its subsequent direct role in coercing clients, as no recognizable contractual psychiatry yet existed. Already by 1906 Dr. James J. Putnam of Boston's Psychopathic Hospital hired social workers to visit patients' homes and establish "friendly relation[s]" with them and their families "as a means of making [the physician's] directions to them effective" (Lubove, p. 63). (Putnam's use of social workers to extend psychiatric influence in the home of the client is a precursor to today's coercive assertive community treatment used with the severely mentally disturbed [see Gomory, 2005]).

Perhaps more than anyone, the pioneer social worker Mary Richmond cemented the intellectual alliance of social work with psychiatry by developing the notion of individual treatment (casework), the *sine qua non* of the profession. According to Lubove (1969), Richmond "singled out the combination of Juvenile Court and Psychopathic Institute (along with charity organization and medical social work) as decisive factors in the evolution of casework" (p. 45). This further identified social work intervention with paternalism, the medical model, and medical settings (Kirk, Siporin, & Kutchins, 1989, pp. 296-297). In her classic *Social Diagnosis*, a major response to Flexner's charges, Richmond (1917) changed the name of caseworkers' method from *investigation* to *diagnosis*, in order "to make advances toward a professional standard" (Richmond, 1917, p. 26). Struggling for professional acceptance, social workers strove to resemble medicine, by doing diagnosis and treatment rather than investigations.

A number of social work academics have argued that during the middle decades of the century, "[t]he hunches and hypotheses of Freud, Jung, Rank and Adler combined to stimulate ... [a] 'psychiatric deluge' in social work" (Reamer, 1992, p. 14). This argument is misleading if it implies that psychiatric influence was not always present in clinical social work, or that the latter was unique in being strongly influenced by psychoanalytic ideas. Although many clinical social workers at that time tried to direct their gaze to inner personality dynamics, as psychoanalytic theory requires, these practitioners also applied the gamut of psychiatric approaches, as they had in earlier decades (Alexander, 1972). Undoubtedly, some clients benefitted. But in the service of social control, casework also led to stigmatizing of some clients' lives and behavior (Dolnick, 1998). Margolin (1997) cites striking passages from several articles in social work journals in the 1960s where, especially if they were poor, clients were described by social workers as both emotionally and morally undeveloped.

Fifty years later, the mental health system has vastly expanded in breadth and depth. Today's psychiatric deluge in clinical social work is still about psychiatric thinking—although

within a therapeutic landscape now dominated by psychoactive drugs.

Psychiatric Hospitals and Inpatient Treatment

Like any social reform, Dorothea Dix's campaign for building state mental hospitals had unanticipated consequences. Instead of ameliorating the difficulties of the mad, state asylums evolved into large warehouses for society's unwanted. Their population rose from 332,000 in the early 1930s to 559,000 twenty years later (Mechanic, 1990). Although much care of the people diagnosed with severe mental disorders did shift to the community starting in the late 1960s, in one of the largest shifts in American mental health policy, it continued to advance physical treatments for dimly understood and presumed diseases of the nervous system. Assumptions that governed the old state hospital treatments continue to undergird new community mental health services. Indeed, one key justification for implementing the previously mentioned assertive community treatment was that it would serve as a "hospital without walls" (Bond et al., 2001, p. 146).

Today, the psychiatric units of medical-surgical hospitals have become the major mental health crisis centers of the nation. In the latest available data as of this writing, Manderscheid and Berry (2006, p. 205) report that 50% of the 2.2 million psychiatric inpatient admissions, readmissions, and returns from leave in 2002 took place in non-federal general hospitals while only about 11% occurred in state and county mental hospitals. So, while policy makers, professionals, and the public saw the need for the institutional reform of the state hospital system and community mental health treatment, the interplay among the various elements of the biomedical-industrial complex along with the continued need to manage this population has led to a system of care that is today more medical in both approach and setting.

Just as the former state hospitals relied on the unique state-sanctioned power of psychiatrists to force people into locked wards, psychiatric crisis management today also rests substantially on coercion. In this connection, it is important to note that American national data on involuntary psychiatric examinations and detentions are extremely sparse. Using the Medline database, we could not locate a single such study published in the last 20 years, and our queries to national experts were similarly unsuccessful. This absence possibly contributes to misperceptions concerning the actual extent of involuntary psychiatric interventions. Using 2006 involuntary detention data for adults from California (California Health & Human Services Agency, 2009) and 2006 involuntary psychiatric examination data for adults in Florida (Christy, 2007), we found a very similar rate for both activities (44.6 and 49.3 per 10,000 persons in Florida and in California, respectively). Extrapolating from the lower figures, we estimate that 1.37 million people are subjected to involuntary

psychiatric detention in the U.S. in a given year. This would mean that 62% of the nation's annual 2.2 million psychiatric inpatient admissions, readmissions, and returns from leave are officially involuntary (in addition to an unknown proportion of unofficially involuntary hospitalizations).

Inpatient treatment, based on 24-hour-a-day medical care and a hospital infrastructure, is a costly undertaking. It absorbed \$41.4 billion of the 100.3 billion or 41% spent on mental health treatment in 2003, the latest year for which data are available (Manderscheid & Berry, 2006; Levit, Kassed, Coffey et al., 2008). However, less than 1% of the general population will ever be hospitalized (Bourdon et al., 1994). Among the misallocation of current resources to these facilities that may require reconsideration is the utilization of professional social workers. In 1986, with approximately 218,000 inpatient residents, 21,000 social workers provided services at these facilities. By 2000, however, with only 139,000 inpatient residents, the number of social workers employed had almost doubled to 37,000 (Manderscheid and Berry 2006, p. 213). Perhaps there are good reasons for this apparent disproportional employment of social workers in coercive inpatient settings — good pay and benefits, more serious problems of the current hospitalized population requiring higher worker to client ratios — but we have found no discussion in the literature of either the questionable ethics of the use of coercion or of the potential misallocation of clinical social workers.

Given the routine application of force for hospitalization and treatment compliance, and the disproportionate share of mental health funds and professional services funneled toward such a small segment of the population, one might expect to find compelling data showing that psychiatric hospital treatment improves the lives of patients. This is not the case (Kiesler & Simpkins, 1993; Pfeiffer, 1990; Pottick, Hansell, Gaboda, & Gutterman, 1993). An extensive review by Kiesler and Sibulkin (1987) of randomized controlled studies conducted from 1967-1979 comparing mental hospitalization to some alternative intervention found no differences or the alternative outperforming hospitalization on outcomes of readmission, psychiatric symptoms, employment, social functioning, and patient satisfaction. To our knowledge, no similar comprehensive systematic review has been published since Kiesler and Sibulkin's. However, more recent research comparing inpatient psychiatric hospitalization to day hospital/crisis respite care (Sledge et al., 1996), a Soteria-like alternative residential program (Fenton et al., 1998), a consumer-managed residential program (Greenfield et al., 2008), and a variety of community-based services (Lloyd-Evans et al., 2009) also failed to demonstrate superior outcomes for inpatient hospitalization as compared to less-restrictive and usually consumer-preferred alternatives.

In sum, though it serves only a tiny fraction of troubled persons in our country and alternatives have been shown to

produce better outcomes for patients, inpatient hospital treatment takes almost half of the over 100 billion dollars of annual mental health spending in the modern mental health system. More importantly, and less discussed, psychiatric hospitalization continues to be made possible by explicit coercion, a problematic ethical and political issue that is difficult to examine or discuss comprehensively due to the paucity of available data. These considerations undermine the argument that it constitutes a value neutral, science/evidence-based form of medical treatment.

The DSM and the Political Economy of *Social Work*

The *Diagnostic and Statistical Manual of Mental Disorders* (DSM) of the American Psychiatric Association (APA) is the "bible" for mental health professionals. Insurance companies and managed care organizations require its codes and diagnoses for reimbursement or payment of mental health services. Is this because the DSM constitutes a valid diagnostic tool to identify mental disorders? Clearly not. The 1980 DSM-III was created by the neo-Kraepelinian branch of American psychiatry, strictly adhering to the view that psychiatry is a branch of medicine that deals with people who are physically sick, that distinct boundaries exist between mental disorder and normality, and that diagnostic systems needed codification to improve reliability and validity (Klerman, 1978). However, when the APA in 2002 explained the need for a fifth revision of the manual, it acknowledged the lack of any evidence supporting claims of biological etiology of mental disorders in the interval:

... the goal of validating these syndromes and discovering common etiologies has remained elusive. ... [N]ot one laboratory marker has been found to be specific in identifying any of the DSM-defined syndromes. (Kupfer, First & Regier, 2002, pp. xviii-xix)

The Chair of the DSM-IV Task Force, Allen Frances (2009), repeated the assessment verbatim when commenting on the upcoming DSM-V slated for publication in 2013:

The incredible recent advances in neuroscience, molecular biology, and brain imaging . . . are still not relevant to the clinical practicalities of everyday psychiatric diagnosis. The clearest evidence supporting this disappointing fact is that not even one biological test is ready for inclusion in the criteria sets for DSM-V. (p. 1)

Building on the lack of gold standard validity for DSM categories, a compelling conceptual and empirical literature critical of the DSM has accumulated in all the helping disciplines. The DSM's criteria for distinguishing mental disorder from normality are critiqued for being undefined and tautological (Jacobs & Cohen, 2004; 2010), and the manual is

faulted for having impoverished the study of distress and misbehavior (Andreasen, 2007), for emphasizing the diagnosis rather than the client's story (Tucker, 1998), for the marginal improvements in reliability produced by the DSM-III and successors (Kirk & Kutichins, 1994), for its categories' lack of fit with observed distress in individuals (Mirowsky & Ross, 2003), for its persistent gender and class biases (Caplan & Cosgrove, 2004), for the frankly political processes by which categories are included or excluded from it (Caplan, 1995), and for the financial ties between the pharmaceutical industry and DSM Task Force members (Cosgrove et al., 2006).

Despite the consensus concerning the fragile scientific basis of the DSM and its mostly cultural and political accomplishments, a content analysis of 69 syllabi of psychopathology courses in schools of social work found that only six (8.5%) assigned any literature which critiqued the reliability and validity of the DSM (Lacasse & Gomory, 2003). This is ironic, since the two strongest critics of the DSM are social work academics Stuart Kirk and Herbert Kutichins, who have argued in many articles and books that the much-touted improvements in reliability promised by the DSM rest on "flawed, incompletely reported, and inconsistent" evidence, and that the DSM's success can only be understood by analyzing "the politics and management of science" (1992, pp. 15-16). No scholarly work has invalidated this critique; it has only grown substantially.

The DSM nonetheless remains the only well-accepted tool for billing mental health services, which makes sense given its functions in the psychiatric-industrial complex. It is published by the profession officially owning the problem of mental illness, which it defines. It enables the conduct of clinical trials which are predicated on the existence of distinct mental disorders — for which the FDA grants pharmaceutical firms an exclusive patent to market branded psychoactive drugs, most of which reap revenues in excess of \$1 billion per year shortly after marketing. A DSM diagnosis also serves as a necessary condition for a wide range of services and resources, especially as federal funding for social services decreases and that for health services increases (Smith, 2010). For these reasons, the manual serves both as economic incentive and constraint on mental health professionals (Kutichins & Kirk, 1988). In a recent survey of clinical social workers, 86% stated they gave a DSM diagnosis "often to always," 94% citing insurance reimbursement as the main reason to do so (Frazer et al., 2009), with half of respondents stating that they would not use the DSM if they were not required to. Despite its profound limitations and its completely uncertain benefits for the day-to-day work of helping distressed clients (Caplan & Cosgrove, 2004), the DSM remains an indispensable component of the technology and education of the helping professions for one reason: it reflects a medical view of distress and misbehavior.

Psychiatric Medications and the Pharmaceutical Industry

The biomedical model holds that distress and misbehavior are bodily diseases and must be treated as such. Supporters of the model promote it as objective scientific knowledge. Believing that the model is valid has important political and economic ramifications, including broadened rationales for forced treatment (since disease implies non-responsibility) and allocating public resources for palliating distress according to medical or psychiatric criteria (Olsen, 2000). Importantly, the model has helped to consolidate the pharmaceutical industry as the leading player in the mental health system. In turn, the industry promotes the model as naturally suited to the concerns of the professions and the public. This has been a boon to expand markets for branded drugs, and drugs' popularity in turn promotes the legitimacy of the model and relieves its adherents from producing the hard evidence needed to validate it scientifically. Despite extremely dubious contributions of drugs in improving indicators of mental distress in comparison to the pre-drug era (Healy, 2008; Whitaker, 2010), it remains controversial to question the status of a drug prescription as the paradigmatic healing intervention in mental health.

Consider the case of the antipsychotic drugs. These have been the primary psychiatric treatment for psychosis since the 1950s. When their extraordinarily burdensome adverse effects and limited longer-term therapeutic benefits became too consequential to ignore—and useful to emphasize in promoting the next wave of drugs—a group of second-generation or atypical drugs was introduced starting in 1989 and promoted to clinicians and patients as a decisive advance in the treatment of schizophrenia. However, their clinical trials were filled with deliberate confounds which made assessing the drugs' utility difficult (Cohen, 2002). Duplicate data were published in multiple articles, confusing the picture of how many clients had been studied and inflating the drugs' perceived efficacy (Huston & Moher, 1996). When manufacturers detected problems—such as the tendency of olanzapine to cause extreme weight gain—they withheld the information *and* claimed the contrary (Dyer, 2007). They made concerted efforts to influence physicians to prescribe the drugs for off-label purposes (Brody, 2007) by individual detailing and continuing education activities, while researchers enmeshed in financial conflicts of interest created "evidence based guidelines" recommending the drugs (Healy, 2006). The industry also provided generous funding to groups such as the National Alliance for Mental Illness (that received 75% of its total donations from 2006 through 2008, or \$23 million, from this source) which in turn has advocated tirelessly for liberal public funding of the drugs (Harris, 2009). From less than \$1 billion in 1995, sales of antipsychotics in the United States rose to an astounding \$11.5 billion in 2006 (Wilson, 2009), with

Medicaid apparently paying for 69% (Waters, 2007), mostly for off-label prescriptions for which the FDA had not considered any clinical trials and for which the drugs had not been approved.

In 2005, the large NIMH-funded Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) trial found that the generic 1950s drug perphenazine (about 9¢ a dose) was as efficacious as the newer antipsychotics (about \$9 a dose) and that all antipsychotics tested were discontinued on average by 74% of clients before the 18-month study ended (Lieberman et al. 2005). The newer medications also offered no superior quality-of-life (Jones et al., 2006). Commenting on his profession's lapse in the evaluation of the newer antipsychotics, Lieberman (2006) acknowledged:

The claims of superiority for the [atypicals] were greatly exaggerated. This may have been encouraged by an overly expectant community of clinicians and patients eager to believe in the power of new medications. At the same time, the aggressive marketing of these drugs may have contributed to this enhanced perception of their effectiveness in the absence of empirical information. (p. 1070)

Discussing the findings' ramifications for public policy and spending, Rosenheck, Leslie, and Doshi (2008) contextualized the annual spending on the newer antipsychotics:

... the additional cost of using these [rather than older drugs] ... is substantially greater than the \$8.5 billion total income of all 47,000 U.S. psychiatrists..., could fund 150,000 case managers [for] 1.5 million additional consumers – or could support three times the total number of social workers currently employed in the United States. (p. 516)

In 2008 and 2009, several states and the Federal government launched suits against drugmaker Eli Lilly for illegal marketing of Zyprexa (olanzapine) and other drugs for off-label indications, resulting in the largest corporate fine in U.S. history, \$1.4 billion. Observers were quick to note that Zyprexa's sales just that year were over \$4 billion. By mid-2009, major fines had been imposed on the makers of most atypical antipsychotics on the market (i.e., Kmietowicz, 2009; Feeley & Fisk, 2010; Tanne, 2010).

In recent years, books about psychoactive medications have appeared in the social work literature (e.g., Austrian, 2005; Bentley & Walsh, 2006; Dziegielewski & Leon, 2001). By and large, these writings strongly affirm the therapeutic value of currently promoted medications and suggest how social workers can facilitate their use. None of these writings, however, have analyzed the scientific or political basis for psychiatry's unrestrained promotion of pharmacological treatment, for example by scrutinizing randomized controlled trials or examining how the pharmaceutical industry influences physicians. In all these texts claims for the advantages of the

second-generation antipsychotics are repeated without any critical analysis. Similar presentations are made for all newer classes of psychotropics, which seems extraordinary, given that the so-called pharmacological revolution in mental health is now nearly 60 years old. Along the way, psychiatric social workers did not object to the enormous transfer of public funds to the pharmaceutical companies; we have found no evidence that the issues described were considered by the profession at large.

The majority of teenage foster children receive psychiatric medications, with a sizeable minority receiving at least three drugs per day (Zito et al., 2008). Children on Medicaid are four times more likely to be prescribed antipsychotics than children with private health insurance (Wilson 2009). In child welfare, tragic stories have emerged in which young children prescribed cocktails of psychotropics died or committed suicide (e.g., Rebecca Riley, 4 years old, Massachusetts; Gabriel Myers, 7 years old, Florida). In each of these two instances, social workers were involved: they took children or their families to doctors' appointments, diligently monitored the medication intake, and even recorded drug-induced harm to the children (Wen, 2010). Yet they had no power to effect any changes in the systems they participated in. These social workers appeared to function as enforcers of a thoroughly medicalized approach to family poverty, disorganization and distress, to the detriment of the unfortunate children involved (see Florida Department of Children and Families, 2009).

On a macro level, the NASW engages in political advocacy but has been silent on the promotion of drugs to consumers at the expense of psychosocial treatment or prevention programs (Lacasse, 2005). Moreover, in 2007, NASW took money from Janssen in exchange for the cooperation of NASW members in a "research project" on a recently released injectable antipsychotic, which, it was argued, was actually a thinly veiled marketing project (Cohen et al., 2007; Clark, 2007; Wong, 2007). That a social work organization ostensibly committed to social justice might fulfill the role of enabler of companies which are increasingly shown to be America's worst corporate citizens seems truly bizarre.

From the restriction of the practice of psychotherapy to psychiatrists as medical doctors from about 1910-1950 (Abbott, 1988, p. 302) to the recent use of drug treatments, little appears to have changed for social workers. Not permitted to perform psychotherapy in those early days, they cannot prescribe medications today; yet their default stance is to encourage or require that clients accept what psychiatrists prescribe. Social workers might assume that, although lying outside their expertise, such interventions are benevolent and beneficial. Psychiatrists are conceded the intellectual/ideological higher ground, based on their presumed grasp of yet-to-be-validated theories (psychoanalysis previously, brain circuit imbalance theories of mental disorders presently). Social workers benefit (in prestige and salary) in

both instances by supporting something *medical*, but this requires them to construct the problem as a disease inside the client regardless of their ethical mandate and professional socialization about systemic and person-in-environment approaches. Social workers are valued by psychiatrists for their commitment to this model, and it is not surprising that professionally they remain the handmaidens of psychiatry. Yet when social workers tacitly agree with the biomedical model of human problems, their clients do not only enjoy the benefits but also suffer the consequences of this naïve commitment.

Arguably, psychiatry has been subsumed as a satellite branch of the pharmaceutical industry, with most intellectual and practical innovations centering on the introduction of new drugs, the popularization of new indications for existing drugs, and the expansion of DSM disorder categories to fit drug prescription trends. Emboldened by generous financial support of its activities from the drug industry, psychiatry presents its biomedical hypotheses in textbooks, articles, press releases and government websites as established facts, concealing enormous definitional and logical contradictions and weak empirical evidence for biological theories of mental disorders (Read, Mosher, & Bentall, 2004; Boyle, 2002; Moncrieff, 2008; Pam, 1990, 1995; Valenstein, 1998).

Material deprivation, poor parenting, interpersonal violence, and disorganized and decaying communities are strongly correlated with emotional and behavioral disturbances (Hollingshead & Redlich, 1958; Hudson, 2005; Read et al., 2005), but the biomedical model concedes only minor importance to these factors. Rather than striving to improve human relationships or living conditions to prevent and alleviate distress and psychosocial disability (Umberson & Montez, 2010), the biomedical complex siphons off resources to develop and distribute more psychoactive drugs.

Displacement of Primary Clinical Social Work Functions

While clinical social workers are engaged in studying, assessing, and assigning DSM diagnoses or taking in biased accounts of psychotropic medication effectiveness and convincing clients to take their medications, they are distracted from applying and developing their own profession's quintessential approaches to understanding, palliating, and preventing personal distress and maladjustment. Social work's *person-in-environment* perspective provides an alternate framework for these problems by focusing on people's interpersonal, emotional, educational, and material needs; harmful effects of deprivation, abuse, and trauma; and the benefits of supportive social relationships, self-awareness and self-regulation, constructive thinking and problem-solving, and other coping mechanisms. The social work perspective primarily lends itself to an advocacy role in securing clients necessary resources and protecting them from physical or

psychological harm. This perspective also is embodied in numerous, well-tested psychosocial interventions that help clients to gain insight into their problem situations, teach skills and alternative behaviors to deal with those problems, obtain familial and other social support to encourage healthy lifestyles, and, perhaps most crucial of all, preventive or early intervention programs that preempt mental problems before they develop or worsen. These approaches stand in stark contrast with reductionist, biomedical theories that locate the cause of mental disturbances and focus treatment almost entirely within clients' neurochemistry.

Considering treatments for clients diagnosed with severe mental disorders as an example, social workers have applied a variety of psychoeducational techniques such as modeling, verbal instructions, positive reinforcement, and environmental restructuring to effectively increase clients' normative behavior and to replace psychotic responses (Wong, 1996; Wong, Wilder, Schock, & Clay, 2004). Using a cognitive-behavioral therapy (CBT) that emphasized stress reduction and coping strategies, social work professor William Bradshaw and his associates (Bradshaw, 2003; Bradshaw & Roseborough, 2004) produced large effect-size improvements in psychosocial functioning and similar magnitude reductions in severity of symptoms in patients with long histories of being diagnosed with schizophrenia. Bradshaw's findings are partially corroborated by results of meta-analyses showing moderately positive outcomes of CBT for persons diagnosed with schizophrenia in other clinical studies (Pilling et al., 2002; Wykes, Steel, Everitt, & Tarrier, 2008). Cognitive enhancement therapy, a social-cognitive intervention, has shown impressive results in clients recently diagnosed with DSM-IV defined schizophrenia (Eack et al., 2009). Social work researchers have also reanalyzed outcome data and noted the successful treatment of persons with acute psychosis in small, home-like, community-based programs operated by nonprofessional staff with minimal use of antipsychotic medications (Bola & Mosher, 2003; Bola, Mosher, & Cohen, 2005). These effective community-based programs offer a less restrictive and less costly alternative to confinement in mental hospitals or psychiatric units of medical-surgical hospitals. This evidence is bolstered further by evidence from an early psychosis psychotherapy intervention program in Lapland, Finland, which has been effective in modifying the course of psychosis (Seikkula, 2000, 2006) and which likely even lowers the prevalence of DSM-IV defined schizophrenia (Whitaker, 2010), an outcome seemingly beyond reach of our current mental health system in the U.S. However, it will be very difficult for social workers to improve psychosocial services or deliver them to a broader span of clients as existing mental health services, funding, and research are all centered on a view of psychosis, severe distress and maladjustment as developmental brain disease and the accompanying psychopharmacological treatments (Wong, 2006).

Another important approach to addressing psychosocial distress, disability, and disapproved behavior applicable by social workers is prevention or early intervention. Like public health programs that prevent the outbreak of diseases by promoting proper sanitation, healthy diet, vaccinations, avoidance of toxins, and other methods, preventive mental health programs aim to reduce participants' exposure to risk factors and to teach participants skills to counter potentially harmful behaviors. By intervening before problems become serious or cause irreparable damage, preventive interventions can be more humane, less expensive, have negligible adverse effects, and hold greater potential for reducing the overall prevalence of psychosocial distress in the general population than any type of treatment-after-the-fact (Blair, 1992; Albee & Gullotta, 1997; Ammerman & Hersen, 1997).

A few social work researchers are taking the lead in formulating prevention and early intervention programs to preempt the development of psychosocial problems that are precursors to severe mental disturbances and finding evidence of efficacy. Fraser and his colleagues (Fraser, Day, Galinsky, Hodges, & Smokowski, 2004) used a randomized design to demonstrate the effectiveness of in-home, parent training and child social skills training to increase children's prosocial behavior, improve self-regulation of emotions, increase contact with peers, raise concentration and perseverance on classroom tasks, and to reduce aggression towards other children. Hawkins and associates (2009) conducted a large-scale controlled evaluation across 24 towns in 7 states of similar skills-building programs for youth and adolescents aimed at preventing alcohol, tobacco, and other drug use (correlated with severe mental disorders) and delinquent behavior. These investigators found statistically significant lower rates of drug use and delinquent behavior in youth participating in the prevention programs. In a series of studies, Lecroy designed a psychoeducational prevention program for adolescent girls to promote appropriate gender role, positive body image, independent decision-making, assertiveness, improved peer relationships, and seeking help when it is needed (Lecroy, 2004a, 2004b). In one phase of his research, Lecroy (2004b) used a randomized design to evaluate his program and found statistically significant differences in favor of the intervention group in five out of eight outcome measures.

While promising, these programs require substantial additional research and refinement. For example, a more recent meta-analysis of CBT applied to clients with a schizophrenia diagnosis (Lynch, Laws, & McKenna, 2010) found results contradicting Pilling et al. (2002) and Wykes et al. (2008). In addition, the favorable findings of the Hawkins et al. (2009) have only been partially duplicated by other investigators (Haggerty, Skinner, MacKenzie, & Catalano, 2007; Feinberg, Jones, Greenberg, Osgood, Bontempo, 2010), and the statistically significant differences obtained by Lecroy did

not have large effect sizes (Lecroy, 2004b). Nevertheless, these psychosocial prevention and treatment programs— which controlled studies have shown to directly benefit clients and their communities – deserve considerably more attention and commitment from social workers, rather than the heavily advertised and possibly toxic pharmaceuticals that are already omnipresent in our society.

Conclusion

We have argued that social work early on in its professional existence identified with psychiatry, these two professions becoming “tied to the most fundamental of society's functions, the control of those who are identified as deviant. The poor, the insane, the criminal, the dependent... The possibility of injustice in such a function is clear enough” (Reid, 1992, p. 40). We have also highlighted that as a result of its allegiance to institutional psychiatry, social work has become over the past generation inextricably entangled in the biomedical/psychiatric industrial complex. Its medicalized and coercive worldview has become the professional air clinical social workers breathe, making it difficult to even notice some of the adverse consequences raised by this uncritical cooperation. Despite the scientific failure of the medical approach to reduce human distress and misbehavior to any causative biological state, it claims an ever-greater share of public funding to treat human distress and misbehavior as biological diseases.

A challenge to our perspective is that the biomedical complex provides attractive jobs for many social workers and its ideology dominates nearly all mental health agencies. Nevertheless, despite inducements and pressures to conform to the biomedical doctrine, social workers must confront the issues discussed here if they are to preserve their integrity as an independent profession. It seems crucial that social work education implement, to borrow a phrase from Reeser and Leighninger (1990), a “specialization in social justice.” Using the moral, political, and economic beliefs with which they resonate, students should be helped to articulate their own vision of a just society, learn how to analyze the political, economic, and social structures of society and understand how these can oppress people, and empower themselves to reduce or counter the influence of institutions that mislead and oppress. Moreover, students should be helped to envision and build the sorts of economic and political structures that place clients' interests at the top of social workers' priority lists, and the sort of open-mindedness that will maintain a constantly vigilant reexamination of their own roles within the mental health system and the empirical claims promulgated under it. It would be naïve to think that human distress and misbehavior could be vanquished by any socio-economic or therapeutic project, but it would be more naïve and misguided to act as an obedient ancillary profession marching to the drumbeat of a rapacious biomedical industrial complex.

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