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Treatment Orientation and Associated Characteristics of North American Academic Psychiatrists

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We present data showing the degree to which a "biological-psychotherapeutic" division persists in American psychiatry, and how psychiatrists' treatment orientation is associated with personal and professional characteristics. Almost two thirds of academic psychiatrists who responded to our survey (N = 435) could be classified as either biological (27%) or psychotherapeutic (37%) in orientation, according to the proportion of their caseload to which they provided psychotherapy (≤25% *vs.* >75%). There appears to have been an increase over the last 35 years in the proportion of psychiatrists who can be classified as biologically oriented and a decrease in the proportion who can be classified as psychotherapeutically oriented, as well as the emergence of a large class of intermediate or "eclectic" practitioners (36%). Several personal and professional attributes were distributed differentially according to treatment orientation. Psychotherapeutically oriented respondents more frequently reported personal histories of psychiatric disorders than did biologically oriented respondents (64% *vs.* 39%) as well as greater satisfaction with clinical work (81% *vs.* 53% "very satisfied"). Differences were also found in age, gender, history of personal psychotherapy, family history of psychiatric disorder, history of marijuana use, degrees of involvement in research, teaching and clinical care of patients, and overall work satisfaction, as well as other characteristics.

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Psychiatry has long encompassed competing schools of thought regarding the etiology and appropriate treatment of mental illnesses (Alexander and Selesnick, 1966; Havens, 1973). However, the field is currently undergoing a period of critical transition due to burgeoning research into the neurobiology of mental illness, and external pressures related to changing economics of health care delivery that have impinged upon the practice of psychotherapy (Dorwart et al., 1992). Given these developments, it becomes important to understand how psychiatrists view competing models of mental illness and utilize different therapeutic modalities in the present environment.

An influential early attempt to classify treatment orientation among psychiatrists proposed two dominant schools, the organic-directive and the analytic-psychological (Hollingshead and Redlich, 1958). This division in psychiatry, more recently conceived as between biological and psychotherapeutic orientations (Klitzman, 1995), has emerged as a subject of intense scholarly (and popular) controversy in recent years. Concern has been expressed about the dwindling influence of psychodynamic theory in the training of psychiatric residents, with the rise of neuroscience and psychopharmacology (Rieser, 1988; Weissman and Thurnblad, 1987), and it has been urged that the psychodynamic perspective be preserved even in this "decade of the brain" (Gabbard, 1992). From an opposing view, it has been argued that the time has come to replace psychoanalytic theory with scientific research into neurobiology, nosology, and epidemiology as the basis of modern psychiatry (Detre, 1987; Guze, 1989). The influence of the DSM-III on the ideological balance of psychiatry has been hotly debated (Klerman et al., 1984). Popular books have proliferated extolling the advances in biological psychiatry (Andreasen, 1981; Gold, 1986; Wender and Klein, 1981; Dowling, 1991). The case of Osheroff *vs.* Chestnut Lodge, in which a hospital was sued for treating a severely depressed patient with psychotherapy alone, drew the public's attention to the division in psychiatry between treatment orientations

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(Klerman, 1990; Stone, 1990). In a 1992 newspaper article, this ideological division and its effect on psychiatric residency training and psychiatric care were discussed (Stone, 1992).

Despite renewed interest in the subject, little systematic empirical investigation has addressed this putative division within psychiatry. A descriptive, qualitative account of these issues has recently been published (Klitzman, 1995), but subsequent to Hollingshead and Redlich's initial study, only three quantitative studies have appeared, two of them over 25 years ago (Armor and Klerman, 1968; Strauss et al., 1964; Sullivan et al., 1993). One of the early studies examined a large national sample of community and academic psychiatrists surveyed in 1960 (Armor and Klerman, 1968), and the other studied segments of the Chicago psychiatric community, including the psychiatric staffs of a large private teaching hospital, a state hospital, and two professional organizations, one specializing in medical psychiatry and the other in social psychiatry (Strauss et al., 1964). Both studies tested whether psychiatrists could be divided into ideological groups, and both found robust evidence of a distinction in theory, practice, and self-concept between biologically and psychotherapeutically oriented psychiatrists. In these studies, the psychotherapeutic orientation was endorsed by an overwhelming majority of practitioners, with a small but strongly committed group adhering to an exclusively biological orientation. Various personal and professional attributes were found to differentiate between adherents of the two main orientations, including age, religion, pursuit of personal psychoanalysis, participation in research, college plans to enter psychiatry, and serious consideration of other specialties while in medical school (Armor and Klerman, 1968; Strauss et al., 1964). Biologically oriented psychiatrists were found to use biological treatment modalities no more frequently than psychotherapeutically oriented psychiatrists, although they appeared to value these more and were found to utilize and to value psychotherapy much less (Armor and Klerman, 1968).

The most recent quantitative research published in this area was a survey study of the attitudes of the faculty of the University of Washington's psychiatry department toward the use of psychotherapy and pharmacotherapy (Sullivan et al., 1993). A difference was found between the treatment orientation of academic and clinical faculty, with greater utilization of pharmacotherapy reported by full-time academic faculty and greater utilization of psychotherapy reported by clinical faculty. However, there was considerable agreement regarding the appropriate use of both modalities in the three cases respondents were presented, each of which demonstrated concomitant axis I and axis II disorders. This was taken to show that in clinical practice, the field of psychiatry was becoming less polarized. Related research has examined the changing attitudes of third-year psychiatry residents between 1976 and 1986, and has found decreasing antagonism toward the biological model in psychiatry through that decade (Coryell, 1987).

Given recent changes in the field, which have engendered passionate public discussion of the "problem" of competing biological and psychotherapeutic schools, and the fact that treatment orientation in psychiatry has been little examined for over a generation, we sought to assess whether and to what extent contemporary academic psychiatrists, at the forefront of advances in the field and educators of the next generation of practitioners, divide themselves as adherents of biological versus psychotherapeutic paradigms of treatment and explanation. We further sought to characterize what personal and professional attributes, if any, might be associated with these different professional orientations.

Methods

We mailed questionnaires to 972 psychiatrists associated with five leading medical schools in the United States and Canada: Yale, Duke, Toronto, University of California, Los Angeles, and the University of Pittsburgh. We included the academic and clinical faculties at Toronto and UCLA, but only the academic faculties at Yale, Duke, and Pittsburgh, as these were the lists made available to us.

We devised a 27-item questionnaire, utilizing the findings of the earlier literature on psychiatric ideology (Armor and Klerman, 1968; Strauss et al., 1964), studies of the characteristics of medical students entering psychiatry residencies (Eagle and Marcos, 1980; Monk and Thomas, 1970, 1973), and our own observations of colleagues with distinct treatment orientations. The questions elicited basic demographic information, as well as data on self-identified treatment orientation, actual clinical practice, and a wide range of personal and professional attributes that might relate to professional orientation. (Copies of the complete questionnaire are available upon request from the first author.) Included with the survey was a cover letter inviting the recipient to respond and assuring anonymity. To avoid introducing response bias, the letter was signed by only one of us (J. A. B), whose own treatment orientation was not widely known. Moreover, the letter did not reveal the purpose of the study, and the questionnaire was constructed so that the topic of investigation was obscure.

Results

Of 972 surveys mailed, 435 were returned completed and 76 were returned as undeliverable, giving a re-

sponse rate of 49% (435/896). The characteristics of the 435 respondents are presented in Table 1. As shown, respondents tended not to classify themselves as strongly adhering to either orientation. However, we found a wide divergence in patterns of *practice*, particularly in the proportion of patients to whom respondents administered psychotherapy, with 113 (27%) performing psychotherapy with less than 25% of their patients and 157 (37%) performing psychotherapy with more than 75% of their patients.

Therefore, we chose to compare these two groups (hereafter called the biological and psychotherapeutic groups) using contingency table analysis, while eliminating the "intermediate" group of 165 respondents, to see whether these two groups exhibited differences in their personal and professional characteristics.

In this analysis, we used Bonferroni corrections to allow for the effect of approximately 20 comparisons. Thus, differences at the .05 level of chance probability are not reported, those at the .01 level are reported only as trends, and only those at the level of .0025 or less are reported as statistically significant.

As summarized in Table 2, self-described orientation and prescribing practices, not surprisingly, strongly differentiated the biological from the psychotherapeutic groups. The most strongly differentiating personal characteristic was age, with biological respondents more likely to be under 40 and psychotherapeutic respondents more often over 59. Because of the strength of this distinction and the influence of age on most personal and professional characteristics, all subsequent comparisons in our analysis of the data were corrected for age, using log-linear models.

Biological psychiatrists were almost four times more likely to engage in research as a primary or secondary activity, and were significantly more likely to have pursued research since completing residency training than psychotherapists. The psychotherapeutic group was more likely to endorse patient care as their primary professional activity and teaching as their secondary professional activity. Interestingly, the psychotherapeutic group expressed markedly greater personal satisfaction with their clinical responsibilities. There was also a strong trend for psychotherapists to report more satisfaction with their overall professional responsibilities than biological psychiatrists.

Extraprofessional attributes other than age that strongly differentiated the groups included personal experience with psychiatric treatment. This distinction remained strong even when we excluded psychotherapy which was purely for training, by requiring a psychiatric diagnosis. Personal treatment for a diagnosable psychiatric disorder was 64% more common among psychotherapeutic than biological respondents. Psychotherapy was the treatment modality received by all

TABLE 1

Raw Percentage Frequencies of Selected Attributes of Sample of Academic Psychiatrists (N = 435)

Attribute	% Frequency
Age	
Under 40	29
40–49	34
50–59	20
60 and over	17
Gender	
Female	20
Male	80
Marital status	
Married	77
Single	9
Divorced	13
Widowed	1
Sexual orientation	
Exclusively heterosexual	90
Bisexual	7
Exclusively homosexual	3
Religion	
Protestant	32
Catholic	16
Jewish	44
Other	8
Socioeconomic origins	
Lower class	3
Lower-middle-class	21
Middle class	41
Upper-Middle class	33
Upper class	3
Political orientation	
Liberal	55
Moderate	29
Conservative	16
Physician parent	18
At least one first degree relative with a psychiatric disorder	38
Sought personal psychiatric treatment for any reason	66
Sought personal psychiatric treatment for diagnosable disorder	52
Used at least once	
Marijuana	59
Hallucinogens	18
Stimulants	19
College major	
Natural sciences	66
Social sciences	16
Arts and humanities	17
Planned on psychiatry before medical school	33
Considered other medical specialties	83
Satisfied with medical school	74
Research experience	
Before medical school	27
In medical school	42
In residency	52
Subsequent to residency	64
Primary professional activity	
Patient care	70
Research	13
Teaching	4
Administration	11
Secondary professional activity	

TABLE 1
Continued

Attribute	% Frequency
Patient care	15
Research	16
Teaching	47
Administration	20
Find own clinical work very satisfying	66
Find own work overall very satisfying	60
Considers self a biological psychiatrist, and etiology of mental illness to be organic	
Exclusively	3
To a large extent	37
To some extent	52
Not at all	8
Considers self a psychotherapist, and etiology of mental illness to be psychological	
Exclusively	10
To a large extent	56
To some extent	33
Not at all	2
Percent patients to whom respondent prescribes medication	
0–25%	42
26–50%	23
51–75%	18
>75%	17
Percent patients to whom respondent provides psychotherapy	
0–25%	27
26–50%	18
51–75%	18
>75%	37

TABLE 2
Characteristics Distributing Differentially Between Biological and Psychotherapeutic Respondents

	Orientation[a]	
	Biological (N = 113)	Psychotherapeutic (N = 157)
Self-described psychotherapeutic orientation (to large extent or exclusively)***	26%	94%
Self-described biological orientation (to large extent or exclusively)***	66%	13%
Prescribed medication to >50% patients***	64%	8%
Age <40 years	36%	19%
Age >59 years***	9%	29%
Research as primary or secondary professional activity**†	46%	12%
Patient care as primary professional activity**†	55%	82%
Teaching as secondary professional activity**†	30%	62%
Pursued research subsequent to residency**†	70%	51%
Very satisfied with clinical work**†	53%	81%
Sought personal psychiatric treatment for any reason (including training)**†	44%	86%
Sought personal psychiatric treatment for diagnosable disorder**†	39%	64%
Any use of marijuana**†	52%	62%
Gender (% female)*†	14%	24%
Personal history of divorce*†	5%	18%
Psychiatric illness in one or more first-degree relatives*†	28%	42%
Very satisfied with work overall*†	53%	71%
Research in residency*†	62%	42%

[a]Biological defined as providing psychotherapy to ≤25% patients; psychotherapeutic defined as providing psychotherapy to >75% patients.
* $p < .01$; ** $p < .0025$; *** $p < .0005$; † corrected for age.

but a few respondents, with an equal distribution between groups of the few receiving biological treatments. There was no difference in the diagnoses provided by members of either group, either in specific diagnoses or in DSM-III-R categories of disorders (anxiety disorders, mood disorders, adjustment disorders, personality disorders, etc.).

When corrected for age, psychotherapists showed a higher rate of experimentation with marijuana, although neither frequent use of marijuana nor recreational use of drugs from other classes differed between groups. The greatest difference in rate of experimentation with marijuana was among the 50 to 59 year olds, where there was three times more experience with marijuana among psychotherapeutic than among biological respondents.

Strong trends toward differences between groups included a greater representation of women and a higher frequency of divorce among psychotherapeutic respondents. There was wider experience with research during residency by the biological group. Psychotherapists were more likely to have family histories of psychiatric illness in one or more first-degree relatives, and a trend was found for biological psychiatrists to have been younger than psychotherapists when psychiatric illness emerged in their family.

Discussion

An analysis of 435 North American academic psychiatrists' responses to our questionnaire suggests that there continues to be a robust distinction between biologically versus psychotherapeutically oriented psychiatrists, but that the proportions of each have shifted since the 1960s. We found that several personal and professional characteristics differ between these groups. The principal potential limitation of these findings is the modest 49% rate of response to our survey, although it is typical for studies of this kind. Although we lack data concerning half the faculty at the centers we studied, even if one were to posit a consistent bias in the characteristics of those who responded,

this would be unlikely to affect comparisons between subject groups within the respondent sample.

The relative proportions of psychiatrists who can be classified as biologically versus psychologically oriented has shifted markedly in the 35 years since Armor and Klerman's survey data were collected. The 27% prevalence of a biological orientation in our sample appears markedly greater than the 11% of the 1960 sample, and the 37% prevalence of a psychotherapeutic orientation in our sample appears much reduced from the earlier figure of 79% (Armor and Klerman, 1968). A large part of this shift appears to have been from a psychotherapeutic orientation to an eclectic position, with 36% of respondents now falling into an intermediate category, a position which was not even *identified* 27 years ago (Armor and Klerman, 1968).

Although the early studies sampled psychiatrists in the community as well as academic psychiatrists, and categorized respondents by ideology rather than clinical practice, our finding that the biological group is now markedly younger than the psychotherapeutic group suggests there has been a generational shift in orientation. It had been found in 1964 that biological psychiatrists were often nearing retirement and were not being replaced by new biologically oriented recruits (Strauss et al., 1964). The reverse appears to be the case among academic psychiatrists today.

As in 1960, biologically oriented psychiatrists continue to be more frequently involved in research than their counterparts. Then, 47% of biological psychiatrists were actively involved in research, compared with 18% of psychotherapists (Armor and Klerman, 1968). We found rates of 46% and 12% for biological psychiatrists and psychotherapists, respectively. At that time, it was proposed that this difference was likely related to the greater compatibility of research activities with the physical science model to which biological psychiatrists appeared to be more committed, which seems applicable today as well.

A striking difference between these groups was the greater prevalence of personal and familial psychopathology reported by psychotherapeutically oriented respondents. A major reason for the high frequency (86%) of personal psychotherapy in the psychotherapeutic group is the important role of personal psychotherapy in the training of many psychotherapeutically oriented psychiatrists (Weissman and Thurnblad, 1987). However, 64% of them recorded specific diagnoses for which they had received treatment, which often began prior to their psychiatric training, as compared with 39% of biological psychiatrists. This difference may simply reflect a greater tendency among psychotherapeutically oriented psychiatrists to pursue personal psychotherapy, a context in which psychiatric diagnoses are likely to emerge, both for the patient and their family members. However, the rate of self-disclosed diagnosis was strikingly high. The lifetime prevalence of psychiatric disorders in the United States was recently estimated to be 48%, 40% of which are severe enough to receive any form of professional treatment, giving a rate of 19.2% for lifetime treatment for a psychiatric disorder. A thorough search of the literature revealed no data concerning the incidence of psychiatric disorders among psychiatrists. However, it has been demonstrated using self-report scales that medical students entering psychiatry had higher levels of anxiety and depression than medical students entering other specialties (Monk and Thomas, 1973). A question we did not ask was whether respondents had first become interested in psychiatry through their own psychiatric difficulties or those observed in family members. This might have shed light on what may be an important precursor of professional orientation in psychiatry. A recent Canadian study found that although psychiatrists were not distinguished from other physicians by higher rates of "severe depression" in themselves or "serious emotional problems" in their families, psychiatrists reported more troubled relationships with their parents. Interestingly, that study found almost no difference in this respect between the psychiatrists who primarily practiced psychotherapy and the more biologically oriented psychiatrists who did not (Frank and Paris, 1987).

Use of marijuana appeared to be associated with the choice of a psychotherapeutic orientation, although it is not possible to tell when in the course of respondents' lives such use may have occurred. The source of the difference was in the group of 50- to 59-year-old psychiatrists. Such use may reflect a greater openness to unconventional experiences in psychiatrists of this orientation, and may relate as well to a higher incidence of psychiatric disorders. In any case, it is clear that biological psychiatrists' interest in using medication to treat mental illness does not grow out of greater personal experience with psychoactive drugs, as these individuals in fact had less such experience. Interestingly, it is well established that psychiatrists (McAuliffe et al., 1986) and psychiatric residents (Hughes et al., 1992) are significantly more likely to use drugs recreationally than are physicians and residents in other specialties.

A strong trend toward a difference in gender makeup between the two groups was found, with females more likely to be psychotherapists than biological psychiatrists. This is consistent with an increasing "feminization" of psychotherapy that has begun to receive attention (Philipson, 1993). It may also relate to the less intense research commitment of psychotherapists. It was recently reported that women are discouraged from pursuing psychiatric research by a lack of mentors (Leibenluft et al., 1993), and a study of 122 recent gradu-

ates of a prestigious psychiatric residency found that women were spending only a third as much time in research as men (Kashtan and Dickie, 1984).

Interestingly, there were many personal characteristics predating residency training that did *not* show significant differences between these groups, but had been expected to on the basis of the literature, as well as our own informal observations. These included physician parents (Eagle and Marcos, 1980), socioeconomic origins (Eagle and Marcos, 1980; Monk and Thomas, 1970), religion (Armor and Klerman, 1968; Eagle and Marcos, 1980; Monk and Thomas, 1973), political orientation (Eagle and Marcos, 1980), college major (Eagle and Marcos, 1980; Weissman et al., 1987), plans to enter psychiatry before medical school (Armor and Klerman 1968; Eagle and Marcos 1980; Weissman and Thurnblad, 1987), satisfaction with medical school (Eagle and Marcos, 1980), experience of marital separation or divorce in the family of origin, personal history of serious medical illness, sexual orientation, consideration of other specialties during and after medical school (Strauss et al., 1964), and research experience prior to entering medical school. The characteristics that differentiated between respondents showing psychotherapeutic versus biological orientation and had been shown previously to differentiate between psychiatrists and other physicians, or between medical students entering psychiatry and other medical students, revealed a consistent resemblance among psychotherapeutically oriented respondents, psychiatrists, and medical students entering psychiatry. These included higher incidences of marijuana use and personal psychopathology and greater representation of women.

Perhaps the most salient distinction we found between the two treatment orientations was the difference in personal gratification they appear to provide. This was most marked in relation to the experience of clinical work, with 81% of psychotherapeutically oriented psychiatrists describing themselves as very satisfied, while only 53% of biologically oriented psychiatrists so described themselves. The lesser enjoyment of clinical work by biologically oriented respondents may reflect the greater severity of illness biological psychiatrists are likely to treat. It was noted in 1964 that biological psychiatrists expected less satisfying clinical outcomes and were less intensely involved with their patients (Strauss et al., 1964). This may be less true today, however, as better tolerated drug treatments have come to be widely used in higher functioning patients (Dowling, 1991; Kramer, 1993; Wender and Klein, 1981). Perhaps the greater commitment to research of academic biological psychiatrists and their lesser involvement in patient care and clinical teaching are not conducive to full engagement in clinical work. Additionally, the great satisfaction that psychotherapeutically oriented psychiatrists gain from clinical work might keep them from investing time in research, an activity that did not provide the biological psychiatrists in our sample with any more satisfaction than their clinical work. It might further be speculated that their very high rate of personal psychotherapy contributed to our psychotherapeutically oriented respondents' satisfaction with the practice and teaching of psychotherapy.

Issues relating to work satisfaction may be of increasing importance as the number of medical students entering psychiatry dwindles (Taintor and Neilsen, 1981), perhaps relating to declining satisfaction provided by contemporary psychiatric practices, as psychotherapy becomes less central to the profession. This may also contribute to the declining interest in psychiatry by women, who were once strikingly overrepresented in the field, but are now increasing their presence in it less rapidly than in other medical specialties (DeTitta et al., 1991; Weissman and Bashook, 1984).

These are among the various possibilities that need to be tested in subsequent research.

Conclusions

Our survey data show that a "biological-psychotherapeutic" division has persisted in American psychiatry since it was described in 1958, although it has shifted. Almost two thirds of academic psychiatrists who responded to our survey (N = 435) could be classified as either biological (27%) or psychotherapeutic (37%) in orientation, according to the proportion of their caseload to which they provided psychotherapy (≤25% *vs.* >75%). This suggests a substantial increase over the last 35 years in the proportion of psychiatrists who can be classified as biologically oriented, and a marked decrease in the proportion who can be classified as psychotherapeutic, as well as the emergence of a large class of intermediate or "eclectic" practitioners (36%).

Several personal and professional attributes were distributed differentially between professional orientations, including age, gender, personal psychotherapy, personal and family history of psychiatric disorder, history of marijuana use, degree of involvement in research, teaching and clinical care of patients, and work satisfaction. Psychotherapists differed from biological psychiatrists in some of the ways psychiatrists have been shown to differ from other physicians, including greater experience with recreational drug use, more personal psychopathology, and greater representation of women.

We speculate that the interaction of greater work satisfaction among psychotherapists and a shift toward a more biological orientation by the field may have contributed to the declining recruitment of medical students into psychiatry.

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