

**Professional Psychology in a New Era:
Practice-based Evidence from California**

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Abstract

The California Survey of Psychological Practice provides comprehensive data on patient casemix, treatments, practice settings, and payment sources using a representative sample of psychologists. These psychologists practice in diverse settings, and continue to deliver traditional psychotherapies. California psychologists' treatment of persons with private insurance highlights the profession's public health contribution by improving the functioning of employed persons and their families. Despite high managed care enrollment among Californians, these psychologists demonstrate wide variability in managed care participation. The authors compare the findings to prior surveys among psychologists, and discuss the findings in relation to trends in psychological practice and public policy.

Professional psychologists embark on a new century of practice faced with dramatic changes in the financing, organization, and delivery of services. Recent surveys, case reports, and treatment effectiveness studies among practicing psychologists have documented some of these changes, including managed care, public policy initiatives, and trends in treatment philosophies and service delivery (Belar, 1995; Cummings, 1995; Fox, 1995; Kiesler, 2000; Pingitore, 1997; Rogers, Wells, Meredith, Sturn, & Burnam, 1993). Yet gaps remain in psychologists' existing knowledge of many aspects of professional practice, and the evidence that supports that knowledge. More comprehensive information is needed on the financing, treatment, and practice setting patterns that are evident among practicing psychologists.

This paper presents the results of the 2000 California Survey of Psychological Practice, a statewide survey of California Psychological Association (CPA) member psychologists. These results offer detailed estimates of psychologists' caseloads and treatments, settings, financing and health plan arrangements, and their income and salary sources. The comprehensive nature of this study also offers practice-based implications for clinicians and their colleagues in professional organizations. Such information can bolster ongoing efforts by psychologists to demonstrate their importance as mental health providers to the array of policy-makers who influence the nation's health care system.

This issue of Professional Psychology also includes two companion studies using data from the 2000 California Survey of Psychological Practice. In one study (Pingitore, Scheffler, Sentell, Haley, & Schwalm, 2000), the net income of full time clinicians is examined to determine whether its variation is associated with managed care participation and the supply of psychiatrists and psychologists. In a second study (Sentell, Pingitore, Scheffler, & Schwalm, 2000), the practice patterns and incomes of male and female CPA member psychologists are compared to determine what characteristics influence income differences between the two groups.

The following section reviews recent trends in mental health financing, organization, and service delivery, and summarizes how these trends have influenced professional practice. A second section reviews the results of previous surveys conducted among professional

psychologists, and illustrates how the 2000 California Survey of Psychological Practice contributes important practice-based research to this tradition of survey research.

Trends in Professional Practice

Five distinct trends have transformed key aspects of professional practice, and will likely do so in the future. First, in the past ten years financing for mental health services nationwide has shifted from the private to the public sector. This has been marked by a decline in out of pocket spending by patients, shifts in the proportion of funds to certain provider types (e.g., community hospitals), and a greater increase in the average annual growth rate among public programs compared to private programs (McKusick et al., 1998). These changes are due to multiple and independent factors, including the increased number of employed persons and families with mental health benefits (hence less out of pocket payments), state and federal funding commitment to alcohol and substance abuse treatment (hence, money to public clinics and hospitals), and the prevalence of certain mental conditions among poor and less educated persons, who may disproportionately use public insurance (Cleary, 1989; Kessler et al., 1994; Olfson & Pincus, 1996). In the private insurance sector, noticeable declines in total spending have taken effect in the 1990's (Broskowski, 1995), largely due to employer restrictions on benefits and managed care (Jensen, Rost, & Burton, 1998).

Second, the organization and delivery of services for persons with insurance have become dominated by managed care. What are termed, "behavioral health services," are delivered to over 160 million Americans, approximately 70 % of the insured population, through a number of pricing, risk sharing, and delivery systems (Findlay, 1999). While managed behavioral health benefits have been extended to more employees, the trend has uniformly been to decrease the benefits offered (Buck, Teich, Umland, & Stein, 1999; Buck & Umland, 1997).

Third, the size of the nation's mental health workforce has dramatically increased in recent decades with resultant competitive pressures on psychologists' salaries, benefits, and other aspects of practice. The exact impact of those pressures has been the subject of recent debate, with conclusions ranging from dire warnings about the effects of oversupply to recommendations on how the supply can begin to meet potential demand [Ivey, 1998 #20;

Kohout, 1997 #32; (O'Neil, 2000); Peterson, 2000 #55; Pion, 2000 #1; Robiner, 2000 #2; Williams, 1998 #33].

Fourth, women have entered the profession in increasing numbers relative to men, and now receive the largest percentage of clinically-oriented degrees. As psychologists, women are characterized by distinctive practice patterns and earnings profiles which are the subject of more extensive discussion in the companion study using the California Survey of Psychological Practice (Sentell et al., 2000).

Finally, psychologists have transformed clinical practice from within, modifying their primary work settings and the range of psychotherapeutic techniques employed in those settings. The proportion of professional practice time undertaken in independent, solo practice has gradually climbed over the past four decades and now hovers near fifty percent (Norcross, Prochaska, & Farber, 1993; Phelps, Eisman, & Kohout, 1998). Theories of human development, psychopathology, and psychotherapy, and the techniques that stem from these theories, have also steadily changed and expanded away from traditional models to provide psychologists with a wider base of knowledge and skills to practice effectively.

Surveys of Professional Psychologists

Survey research conducted among psychologists over the past two decades has documented changes in the financing and organization of the mental health delivery system, the increase in the supply of psychologists, and the expansion and changes in psychologists' scope of practice. Two essential aims have guided that research. One aim has been to construct portraits of psychologists as psychotherapists, particularly in response to the steady growth of clinical service roles in the 1970's and 1980's. In a 1981 survey conducted among Division 29 members, Prochaska and Norcross (1983) were among the first to document the central role of independent psychotherapy practice among psychologists. Their findings lead the authors to suggest that an increased commitment to psychotherapy practice would lead to modifications in professional training, the organizational structure of the profession, and the underlying values of psychologists. In a follow-up study in 1991 (Norcross, Prochaska, and Farber, 1993), the authors documented additional trends among Division 29 members, including the increased

commitment to full time clinical practice, and a greater time commitment to private practice among women in comparison to men. The predominant theoretical orientations among that sample of clinicians were nearly equally divided between psychodynamic, cognitive-behavioral and other approaches. The authors also noted an increased endorsement of psychodynamic theories by Division 29 members between the time of the two surveys.

The second aim of survey research has been to document how psychologists have responded to changes initiated largely from outside the profession. These studies have collected information on psychologists' participation in public and private financing sources, practitioner income, and the opinions of psychologists to the accelerated changes in the mental health delivery system initiated by managed care. In comparison to survey studies that sought to answer the questions, "Who are we as psychologists and "what do we do?", these studies have addressed a new set of questions for the profession, such as "Who are we willing and able to accept payment from for our services?" and "what clinical, economic, and ethical challenges does managed care have on practice?"

Studies conducted in Pennsylvania found that psychologists increased their participation in Medicare during the 1990's, and noted that managed care policies and procedures undermined patient access to services and quality of care (Bowers & Knapp, 1993; Knapp & Bowers, 1996). A survey of Florida psychologists noted that managed care participation was high among full-time practicing psychologists, and that reported net income was correspondingly higher among those psychologists than psychologists without managed care income (Gold & Shapiro, 1995). Similar income differences were reported in a survey of New Jersey psychologists, with managed care participation reportedly yielding greater income (Rothbaum, Bernstein, Haller, Phelps, & Kohout, 1998). Yet that sample of psychologists also reported that the percentage of respondents with yearly increases in income had dropped in a five year period. Evidence for the negative impact of managed care on practice patterns was obtained from a survey of Division 42 member psychologists, who reported adverse effects of managed care participation on professional identity, as well as the creation of new and troubling ethical concerns. (Murphy, DeBernardo, & Shoemaker, 1998). Additional negative experiences, including a perceived increase over time in loss of clinical autonomy, were reported among Iowa psychologists who continued to participate in a Medicaid managed care program (Russell et al., 2000).

The largest and most comprehensive survey to profile psychologists' current practice and describe their experience with managed care was that conducted by the Committee for the Advancement of Professional Practice (CAPP) in 1995. That study gathered information from approximately 15,000 participating psychologists (Phelps et al., 1998). Nearly 60% of respondents reported negative views of managed care concerning a number of areas of practice. The CAPP survey also delivered a nationwide picture of professional practice still dominated by solo practitioners offering traditional psychotherapeutic services. In summary, these "market-oriented" surveys have provided information on the economics of service delivery, such as financing patterns, managed care participation, and income trends. These studies have also detailed psychologists' opinions about the negative impact of managed care on essential aspects of practice.

While this research has contributed to our understanding of professional practice, sampling and design limitations have limited the relevance of some of the results. Response rates for many of these surveys have been below 50 %, and some studies did not address the question of whether the obtained sample was representative of its larger population. Limitations also existed in the data gathered by these surveys, which have left important questions regarding contemporary practice unaddressed. Previous studies that have examined psychologists' therapeutic orientations and practice settings have not simultaneously addressed financing issues, and thus cannot demonstrate how market dynamics contribute to observed treatment and practice patterns. Studies that have measured practitioner financing sources have obtained information only on selected sources (e.g., Medicare), which does not provide psychologists with more comprehensive information on overall financing mechanisms or the particular health plan arrangements that utilize these financing sources.

What has been missing to date is a more comprehensive portrait that measures in an integrated fashion the full scope of contemporary practice, including information on patients, practice structure, treatments, and reimbursements. A more comprehensive portrait would for the first time provide psychologists with information on practice *and* reimbursement patterns among their colleagues. Such research would also begin to match efforts under taken by psychiatrists who have used national provider surveys to open the "black box" of managed care, and examine

how specific financing systems and managed care practices affects the delivery of psychiatric services (Pincus et al., 1999; Zarin, Pincus, & Peterson, 1998).

The 2000 California Survey of Professional Psychology Project

Demographic characteristics among Californians, organizational features of the California health care system, and the psychologists that work within that system offer psychologists across the country important evidence in three areas to expand their understanding of the scope of current practice. Demographic patterns, mental health delivery system characteristics, and mental health workforce supply dynamics that presently exist in California may eventually be evident in other parts of the country. First, California is highly diverse in racial and ethnic composition, yet the pace of diversity is a dominant trend in the United States. The percentage of California residents versus residents nationwide who self report as White (60% versus 75%), Black (6.7% versus 12.3%), Hispanic/Latino (32.4% versus 12.3%), and Asian (10.9% versus 3.6%) attests to this diversity (U.S. Census Bureau, 2000).

Second, California overall ranks 13th in the percentage of persons with four or more years of college education, and 17th in median family income for 1999, factors that have been shown to significantly influence utilization of mental health services (Cleary, 1989; Olsson & Pincus, 1996; Taube, Burns, & Kessler, 1984). These figures suggest that the caseloads of California psychologists may not be significantly different from that of colleagues in other states. Third, California has one of the highest Health Maintenance Organization (HMO) concentrations in the nation, with fifty percent of its eligible and insured population covered under various HMO arrangements (Cattaneo & Stroud, 2000). Other evidence suggests that virtually all privately insured individuals in California are covered by either an HMO or a preferred provider organization (PPO) (Kiesler, 2000). Hence, HMO penetration in California may not simply reflect local market characteristics, but represent trends that may be implemented elsewhere in the future.

Finally, California has the largest number of licensed psychologists in the country (Robiner & Crew, 2000), and the largest number of yearly doctoral psychology graduates (National Science Foundation, 1998). A recent study reported that the mean ratio of

psychologists to 100,000 population nationwide was 31.66. The mean for California was 38.70, placing it twelfth nationwide, and suggesting a potential oversupply of psychologists that mirrors similar supply patterns in other states (Robiner & Crew, 2000). Thus, California's behavioral health care delivery system and its provider pool combine to produce effects on practice that have national implications.

Survey Development

The survey was modeled after earlier investigations conducted among psychologists and other mental health professionals (Norcross et al., 1993; Phelps et al., 1998; Prochaska, 1983; Williams, Kohout, & Wicherski, 1998; Zarin et al., 1998). The 2000 California Survey of Psychological Practice was pilot tested among a random sample of California Psychological Association (CPA) members and subsequently revised following comments from participants.

The study survey was a 17-item questionnaire that included CPA member demographic information. Participant identity was shielded from the study investigators by providing each participant a unique identification number that was known only to one CPA staff person assigned to the project. This ID number allowed for subsequent mailings to study participants who did not respond to the first mailing.

The survey asked psychologists to provide information for a *typical work week* in three areas of practice: 1) Patient Caseload; 2) Practice Profile; and 3) Insurance/Managed Care/Reimbursement. The latter section asked the psychologist to estimate the percentage of their patients covered by various payment sources, and the percentage of patients covered by one of nine health plans. The psychologist in this section was also asked the following additional questions: 1) the percentage of patients who were self pay due to one of five criteria; 2) an estimate of their net income from psychological work for 1999; 3) the percentage of their income derived from various sources; and 4) data on fee discounting arrangements. Responses given by participating psychologists are estimates of practice characteristics for the typical work week, and thus may be prone to error.

A random sample of 770 CPA members, out of a total membership at the time of the study of 4,050, was selected to receive the mailing. Sample size estimate was conducted using the criteria suggested by Hulley and Cummings (Hulley & Cummings, 1988). The study used the average number of patients seen per week reported by psychologists in the CAPP study as a

representative criterion measure. A sample size of 770 was calculated as representing the minimum number needed to obtain a 95% confidence interval for the mean value of the criterion measure and to obtain a minimum 50 % response rate.

The survey design included an oversampling of CPA members under the age of 39. This strategy was employed to ensure that the study included a sufficient number of younger California psychologists, given the fact that the CPA membership was underrepresented for this age group at the time of the study. Twenty-seven percent of all licensed California psychologists are member of the CPA. At the time of this study, the number of psychologists per 100,000 population in California was 42.17.

The study sample was weight adjusted to account for the overrepresentation of younger psychologists. This weight was equal to the total number of California psychologists in each of three age categories divided by the number of survey respondents in each age category. This initial weight was added to estimates of respondent practice characteristics, and then readjusted to ensure that the number of observations calculated for statistical analyses equaled the actual number of survey respondents. Surveys were examined for incorrect or inconsistent computations and responses were adjusted (e.g., cleaned) if needed. Statistical analyses for survey data were conducted using the statistical software package STATA 6.0 (STATA Corporation, 1999).

The data was analyzed in two stages. First, the data was tabulated to provide the number and percentage of respondents who reported positive values (e.g. 1 % - 100 % or Yes) or zero values (e.g. 0% or No) for each survey item. In the second stage of analysis, weighted mean figures and standard errors were calculated for all respondents who reported non-zero values for each area of practice. This two stage analysis provides information on both proportional distinctions across each area of practice, and the average, or mean level of service provision or participation rates among psychologists who reported positive values.

Survey Results

Four hundred and eleven surveys were returned for an overall project response rate of fifty three percent. Deleting from the present study those surveys from psychologists who were fully retired, who refused to participate, or did not conduct any form of clinical practice (e.g.,

administration) left three hundred ninety five usable surveys. The present study used results from these respondents, which comprised ninety three percent of the total sample.

Respondent demographic characteristics are included in Table 1. The sample was representative on gender and race/ethnicity of CPA members who reported that information, and representative of all doctoral-level California APA practitioner members. In California, the gender, race and ethnicity of licensed psychologists are not collected by the Department of Consumer Affairs. The mean age of the study sample (50.6) was significantly younger than the mean age of all doctoral level and California-licensed psychologists (51.6), and the mean age of all doctoral-level California APA practitioner members (52.0). But for practical purposes the differences are not significant. The study sample included a greater proportion of respondents age 39 years and younger in comparison to all California-licensed psychologists and all California APA practitioner members. As noted above, estimates were weight adjusted to take this factor into account. At the time of the study, the CPA did not collect data on member age so comparisons of the sample with that group could not be conducted.

Among those respondents who reported their highest degree to the CPA, three hundred and seventy nine respondents (93%) possessed a Ph.D., twenty (5%) possessed a Psy.D., and ten (2%) held dual (Ph.D. & Psy.D.) or other degrees (Ed.D.). These figures are comparable to figures among all CPA member psychologists and comparable to all California APA practitioner members.

Patient Caseload

Information on psychologists' patient caseload is presented in Table 2. Hispanic patients were more likely to be in the caseloads of these psychologists in comparison to all other non-White patient groups, and, on average, constituted a larger percentage of the psychologists' caseload in comparison to all other non-White patient groups.

Psychologists reported that patients diagnosed with DSM-IV based mood disorders were the most prevalent group treated, and that among those psychologists who treated these patients, on average, nearly 40% of their caseload included these patients. A majority of psychologists reported treating persons with substance abuse disorders, but, on average, these patients represented the smallest percentage of the psychologists' caseload. A significant majority of psychologists reported treating patients with dual DSM-IV based diagnoses. Among those

psychologists who reported treating these patients, on average, they comprised over 30% of the psychologists' weekly caseloads.

Psychotherapy Treatments

Cognitive-behavioral psychotherapy (CBT) and supportive psychotherapy were endorsed by a greater percentage of psychologists than any other psychotherapy. However, psychologists who practiced long-term psychodynamic psychotherapy did so with a greater percentage of their patients than psychologists who practiced any other form of psychotherapy. Systemic therapies were reported by a smaller percentage of psychologists than cognitive-behavioral, supportive, or long-term psychodynamic psychotherapy. Psychologists who provided systemic therapies did so, on average, for a smaller percentage of their patients than psychologists who provided either cognitive-behavioral, supportive, or long-term psychodynamic psychotherapy.

Practice Profile

Information on psychologists' Practice Profile is presented in Table 3. Direct patient care, and consultation related to patient care, accounted for 66 % of these psychologists' total weekly hours worked. For psychologists who devoted weekly work time to patient care administration and non-patient care administration, such work accounted for nearly 30 % of total weekly hours worked.

Solo office practice was the predominant practice setting reported by these psychologists, and those who practiced in that setting did so intensively. In contrast, group practices were used by less than 20 % of this sample of psychologists. However, among those affiliated with a group practice, on average, nearly 80% of a typical work week was spent in that setting. Hospital and/or clinic affiliations were reported by a small percentage of psychologists. Among psychologists who reported such affiliations, on average, those psychologists devoted a majority of their weekly practice time to those settings.

Payment Sources/Health Plan Types

Information on percentage of patient services financed by payment sources and delivered by health plans is presented in Table 4. Psychologists' predominant financing sources for patient services are managed care and patient self-payment. Over 60% of psychologists reported receiving payment from managed care-type private insurance, and among those psychologists, on average, 40% of services were reimbursed from managed care-type private insurance.

Over 75% of psychologists received payment directly from patients with out any type of third party reimbursement. Among those psychologists, on average, 40% of services were reimbursed from patient self-payment. Thus, taken together, reimbursement from managed care and patient self-payment accounted for over 80% of the financing sources among those psychologists who participated in those arrangements.

Psychologists more frequently reported that their services were delivered through private or public non-managed care plans than through managed care plans. However, among psychologists' who participated in managed care plans, on average, the percentage of services covered by those plans was slightly greater than the percentage of psychologists' services covered under non-managed care plans. In addition, nearly 60% of psychologists reported that some of the services provided to patients were not covered by any form of health insurance.

Income/Income Sources

Information on reported mean net income for 1999, percentage of income from particular sources, and fee discounts are in Table 5. The average net reported income for 1999 among these psychologists was \$72,308. Forty percent of psychologists reported receiving a salary for their services, and on average, among psychologists with salary as a source of income, 75% of total income was from that source. Information on fee discount patterns were also reported independent of income sources. Nondiscounted and discounted fee for service were reported by a nearly equal percentage of psychologists (57% versus 60%). A predominant majority of psychologists reported that fees were discounted to patients, and, on average, the percentage of patients with discounted fees was nearly 50%. Among psychologists who discounted fees, on average, the discounted rate was 30%.

Discussion and Recommendations

The results of this study represent a comprehensive portrait of professional practice obtained from a sample of psychologists that combines information on caseload, treatments, and financing patterns. Given the extent and complexity of the data obtained, a number of conclusions can be made regarding the study findings. The following discussion is directed at the most practice and policy-relevant findings in each of the three areas surveyed: patient caseload,

practice profile, and insurance/managed care/reimbursement. Some of the results will be compared to findings from previous surveys of psychologists, and these comparisons will be reported on throughout this Discussion and Recommendations section.

Regarding patient caseload, the results indicate that these psychologists treat a diverse casemix, including a sizeable number of patients with anxiety and mood disorders. Persons with those disorders represent two of the most prevalent DSM-IV based conditions found in the largest and most comprehensive epidemiologic study to date, the National Comorbidity Study (NCS)(Kessler et al., 1994). Exact comparisons can not be made between the caseload figures in this study and findings from the NCS or other studies. In fact, such comparisons would likely be inaccurate given item differences in the study instruments, as well as the existence of significant regional differences in both patient demographics and the prevalence of many DSM-based mental disorders. However, comparisons can be made to the most recent national estimates of the distribution of nonhospital visits to psychologists by persons with mental conditions. In comparison to those estimates, this sample includes a similar percentage of persons with schizophrenic disorders, a greater percentage of persons with mood disorders and childhood disorders, and a smaller percentage of persons with anxiety disorders (Olfson & Pincus, 1996).

The results of this study also suggest that the patients of these psychologists are potentially complex psychotherapeutic cases with over 30 % dual diagnosed and over 15% under treatment for personality disorders. Aside from the infrequent treatment of persons with psychotic disorders, the caseload of these psychologists was similar to that of psychiatrists in California and nationwide during the same time period (Pingitore, Scheffler, Sentell, & West, 2001; Zarin et al., 1998). These facts may illustrate to policy makers and mental health administrators that California psychologists do not simply treat the “worried well” but are situated in the clinical mainstream of the nation’s mental health professionals.

Commitment to Traditional Psychotherapy

Regarding treatments, the results indicate that these psychologists remain traditionalists. That is, they offer in solo practice settings the core psychotherapeutic skills of the profession, namely individual, adult-oriented psychotherapy of varying lengths of duration. Furthermore, treatment intensity, on average, was confined to one visit a week as the number of visits was nearly equal to the number of patients treated per week.

Two dominant therapeutic treatments used by these psychologists (e.g., cognitive behavioral and psychodynamic) reflect different theoretical and clinical traditions (Jones & Pulos, 1993). These mean figures may now serve as a baseline with which to chart trends in the dominant psychotherapeutic techniques provided to patients on a weekly basis by a representative sample of psychologists. In addition, these psychologists offered a greater percentage of cognitive-behavioral therapy (CBT) to their patients than those surveyed by Norcross and colleagues, and the percentage of California psychologists who provided CBT was also greater than that reported in 1996 among New Jersey psychologists. This finding may suggest that psychologists have become more receptive to CBT as a set of theories and therapeutic techniques as a result of its reported effectiveness, or that changes in treatment authorizations under managed care have required these psychologists to more frequently use CBT.

Less frequently used are systemic treatments and other services, and their relative absence no doubt reflects the predominant role of practitioner training and preference, referral patterns, and practice settings on treatment selection. Unexamined issues of age, gender, therapeutic ideology, practice setting, and reimbursement arrangements may account to some degree in provider choice of treatments and patient groups. Future research may enable psychologists to understand how patient, provider and organizational factors such as managed care policies influence the delivery of specific psychotherapeutic techniques.

Professional Practice in a Diverse Society

The information on the racial/ethnic composition of these psychologists' caseload may represent the first such information obtained from a representative sample of practicing clinicians. The racial/ethnic distribution of these psychologists' caseload raises important questions regarding their accessibility to non-White persons seeking psychological services, and the ability and willingness of non-White persons to seek services from a psychologist.

Psychologists reported that Hispanics constituted a greater proportion of their caseload in comparison to other non-White persons. Yet, the percentage of Hispanics in psychologists' caseloads is proportionately small in relation to the total California Hispanic/Latino population. This disparity was likely due to a number of factors, including the distribution of mental health conditions across demographic groups, income and insurance coverage, language differences,

and willingness to seek treatment from a psychologist (Kessler et al., 1994). Despite these barriers, there is evidence to suggest that psychologists in general should consider ways to further increase their delivery of services to Hispanics. This evidence includes the underutilization of services by Mexican Americans, the largest group of Hispanics in California, even when experiencing a mental disorder (Vega, Kolody, Aguilar-Gaxiola, & Catalano, 1999). Hispanics are also more likely than all other groups to have three or more comorbid disorders during their lifetime (Kessler et al., 1994). For individual psychologists in practice, substantial barriers may exist in their ability to meaningfully address these disparities. However, State psychological associations and other organizations that represent psychologists may want to consider outreach programs targeted to dominant racial and ethnic minority groups in their area as a first step to address these issues.

Reexamining Traditional Practice

Psychologists have recently argued that to ensure survival their colleagues should embrace new therapeutic techniques and services and treat new and different populations (Cummings, 1995; Haley et al., 1998; Qualls, 1998). The commitment to providing traditional therapeutic skills among this sample of psychologists, even in the midst of upheaval in the profession, may indicate that psychologists believe that what they have always provided their patients works best. Alternatively, these findings might suggest that the transition to other forms of professional practice are more difficult to undertake than previously recognized.

The practice profile of these psychologists once again documents that solo office practice is the setting of choice. However, important findings are evident from a closer examination of treatment selection, productivity, and hours spent in various activities while in private practice. First, this group of psychologists spends considerably less time in full time solo practice than psychologists surveyed in other studies. Sixty-three percent of psychologists surveyed by Norcross and colleagues worked full time in solo practice. In the 1995 CAPP study, 43 % nationwide reported solo practice as the primary work site, and 53% of CAPP study participants from reported sole practice as the primary practice setting (Phelps & Chuukwu, 2000).

In the present study, only 35 % of respondents worked exclusively (e.g., 100%) in solo California practice, and 43 % worked 75% time in solo practice. Exact comparisons cannot be made on this issue across the studies because of sampling differences, as well as differences in

question wording and measurement. Yet, results suggest a trend toward diversification of practice setting. Changes in the practice environment may contribute to this diversification, including the increasing supply of all mental health providers, and differences in the proportion of time in solo practice based on psychologist demographics.

Second, these psychologists, on average, spend approximately 60% of a forty-hour workweek devoted to direct patient care. For psychologists with a majority of time in solo practice (e.g., greater than 50%) the figure is 58 %, which is slightly below the 63 % of time devoted to seeing patients reported by CAPP study participants in California (Phelps & Chuukwu, 2000). As a measure of clinical productivity, these findings and those from the CAPP study suggest significant differences in practice style in comparison to psychiatrists, who nationwide spend over 80 % , and in California spend 70 % of their average workweek in direct patient care (Pingitore et al., 2001; Zarin et al., 1998). Even when psychologists' clinical time is combined with consultation, it appears that among this sample of psychologists nearly 30% of a typical workweek was not directly reimbursed.

The structure of traditional psychotherapy with 50 minute appointments, in contrast to inpatient treatment and medication management services typical of psychiatric practice, may account for these differences in practice style. The practice of psychotherapy also requires ongoing training and consultation to address, for instance, transference and counter-transference issues in the ongoing treatments, and hence involves an additional devotion of time unlike some psychiatric or social work practices. Fees to psychologists from patients may cover the numerous hours spent in non-patient care. Yet psychologists in this survey reported that 50 % of patients received discounts, and that the average discount was over 30 %. Thus, practice style, choice of payment sources, and pricing issues may combine in important ways to shape overall productivity and income. Treating more patients in a given week does not mean that more persons will receive effective psychological services. Psychologists have also been vocal in their comments about reduced fees and income. While the managed care delivery of services has uniformly reduced fees and incomes, the structure of traditional outpatient psychological practice itself may also influence productivity and income.

Only 20 % of the psychologists in this study were affiliated with a group practice, yet these psychologists spent a majority of their work week practicing in that arrangement. Given

the limited participation in group practices, how can more psychologists increase their delivery of services through that arrangement? In addition, what would be the advantages of that arrangement over solo practice? One approach to increasing group practice-based services would be for psychologists to establish formal or informal referral arrangements with physicians, health plans, or schools. Group practices that include psychologists with a variety of specializations or services (e.g., child treatment, biofeedback, etc.) may be better able to market themselves to providers or organizations that do not have a substantial need or demand for traditional, adult-oriented psychotherapies.

A second approach to increase the use of group practices would be for psychologists to consider increasing the number of referrals from persons with public insurance, or from organizations that deliver services to those persons. The low reimbursement rates from public insurance, and the particular therapeutic challenges of treating some persons with public insurance, have been factors in psychologists' decisions to not participate in public insurance programs. However, psychologists in group practices could adapt group treatments or behavioral medicine services to these individuals as a means to generate referrals and provide focused, solution-oriented treatment for persons with a variety of conditions (e.g., persons with chronic pain, depression, or insomnia). One advantage of increasing participation in group practices would be to centralize some of the administrative aspects of professional practice and reduce individual psychologists' time on these matters.

Finally, only a small percentage of these psychologists devote weekly practice time in any hospital setting. This pattern of practice may be due to many factors, including the absence of hospital admitting privileges for many psychologists in independent practice. However, if psychologists wish to diversify their practices they should consider obtaining medical staff privileges at hospitals. Such an affiliation would permit psychologists to be "where the action is" regarding the treatment of patients with medical conditions.

Psychologists' Contributions to Public Health

Psychologists' reliance on various payment sources as measured in this study illustrates three important facts regarding the current state of practice. First, California psychologists treat working Californians. Over 75 % of psychologists' payments were on average, from insurance systems or self-payment that suggests employment by the patient or their spouse/parent. Less

than 15 % of care was delivered to patients who receive insurance due to being disabled, elderly, or who have no insurance (e.g. indigent). This figure is in contrast to that of psychiatrists nationally and in California, whose caseload involves roughly one third of patients who receive Medicare, Medicaid or are indigent (Zarin et al., 1998).

This finding - that a majority of psychologists' caseload involves the treatment of working Californians – could be a focus of discussions with public officials and private health care representatives regarding the contributions of psychologists to the state's overall mental health. Furthermore, this contribution of psychologists to the public health of employed Americans may be an important and unexamined characteristic of professional practice. In their report to the U.S. Congress, the National Advisory Committee on Mental Health in 1998 documented that employer financial incentives that limit access to mental health services may shift costs to employee disability claims. In addition, the report found evidence that reduced access to mental health services relative to general health services resulted in a decline in work function among employees of a large national corporation (National Institute of Mental Health, 1998).

Psychologists' traditional emphasis on treating educated and employed individuals with various psychotherapies could provide professional organizations with additional evidence regarding the contribution of psychologists to the public health. Future research conducted at the state or national level, including efforts such as the APA's PracticeNet, could gather longitudinal data on the occupational status and functioning of patients treated by participating psychologists. This information could further demonstrate to major employers, insurance companies, and government agencies the contributions of psychologists to the health and well being of employees and their families.

Psychologists' Financing Sources

The financing patterns used by these psychologists offers evidence of a second feature of contemporary practice, which is the reliance on a small number of financing sources. Financing from managed care and patient self payment represented 80% of the income sources for those psychologists who participated in those arrangements. These financing patterns may increase psychologists' economic vulnerability in a market characterized by provider competition and reduced utilization patterns that result from managed care.

Self-payment for psychological services takes on added significance when viewed in the context of the reasons for patient self-payment as reported by respondents. Psychologists reported that 40 % of patients are self-pay due to the failure of a plan to cover services, and nearly 25 % are self-pay due to the expiration of benefits. Given the reliance of these psychologists on traditional forms of psychotherapy, it is probable that patients and providers jointly and routinely agree to continue treatment regardless of the benefits package. A third feature of contemporary practice illustrated by this information is that psychologist's reliance on solo and outpatient-based practice, financed largely from private insurance or patient self-payment, results in care for the most needy and vulnerable persons being withheld due to financial decisions and setting characteristics.

Managed Care Participation

The information on health plan participation suggests the presence of different managed care participation rates among these psychologists. Thirty-seven percent of the sample reported no managed care participation. Among those psychologists who reported managed care participation the average participation rate was 50 %, and the median rate was nearly 20 %. No other comparable figure has been obtained in previous surveys of psychologists regarding their rate of managed care participation. A post-hoc analysis revealed that mean managed care participation rate was not associated with years of clinical experience among these psychologists. This evidence suggests that other factors shape psychologists' willingness or necessity to participate in managed care. When viewed in the context of psychologists' participation in various payment sources and health plan arrangements, it appears that these psychologists are neither excluded nor immersed in managed care.

The Impact of the Uninsured

Respondents reported that roughly one quarter of their patients do not have any insurance for mental health services. The patients of these psychologists may be employed and not receive insurance from their employer, cannot afford it, or choose not to make out of pocket insurance payments. This figure on the proportion of uninsured patients become a potential issue of public policy when viewed in relation to a state's overall rate of uninsured residents.

In California the percentage of both the child and adult population without health insurance is greater than comparable figures nationwide. In 1998, which represents the most

recent date of data collection, 26% of the population aged 19-64 in California did not have insurance in comparison to 19.6 % nationwide. For children, the figures were 20.8% versus 15.5% (Schauffler, 2000). Other states, such as Arizona and Texas, reportedly have even a greater percentage of their citizens without any insurance (USA Today, 2000). The mental health problems of the uninsured, and particular problems for the nonpoor uninsured in California, have been previously documented (Norquist & Wells, 1991) . Public policy efforts have expanded awareness of and access to forms of public insurance available to Californians, particularly children (Norquist & Wells, 1991; Yegian, Pockell, Smith, & Murray, 2000).

The size of the uninsured population in California (and elsewhere) may adversely effect clinical practice in ways previously unexamined. Psychologists may experience reductions in workload, income, and treat a more homogeneous patient population (e.g., Caucasian) because a sizeable percentage of the population does not possess insurance that would authorize and reimburse for psychological services. In addition, when treated, the uninsured may receive only psychotropic medication, which is a service not provided by psychologists. Because of these circumstances, statewide and national efforts to expand psychologist's service delivery should focus not only on prescription privileges but an expansion of public and private insurance with mental health benefits. Expanding mental health coverage so that more persons can obtain a full range of psychological services may result in greater proportional increases in psychologists' productivity than the addition of one other service.

The information on California psychologists' reported mean net income for 1999 (\$72,308) is presented in Table 4. Discussions of how mental health workforce supply dynamics and other market factors influence psychologists' income are presented in the companion studies (Pingitore et al., 2000; Sentell et al., 2000).

Study Limitations

First, this information is cross-sectional, and as such may fail to capture important trends in clinical practice that would be evident in a longitudinal study. Second, this sample of CPA members, and CPA members in general, may be different than other groups of California licensed psychologists with respect to theoretical orientation and treatments offered, as well as the payment sources and health plans used to cover services. However, no comparative data exists on whether the members of this state association are dissimilar from the overall population

of California psychologists., The results obtained in this study on psychologists' caseload, treatments, and income serve as a first approximation of current practice in California and nationwide. Third, participant's circumstances may have motivated them to participate in the survey, and devote time from their practice to do so in comparison to other CPA members, such that results may not fully reflect the practice patterns of professional psychologists.

Conclusion

This study provides practicing psychologists, policy makers, and researchers with information about the ways in which financing, treatment, and delivery are reflected in routine psychological practice. The evidence suggests that California psychologists vary in their managed care participation rate, despite the high proportion of insured Californians whose services are provided under managed care. The evidence also suggests that California psychologists and a significant proportion of their patients have jointly decided to initiate or to continue treatment under a direct payment arrangement, independent of insurance systems. More importantly, this study illustrates how practice-based research can collect the data that is needed for psychologists to advance the profession in the midst of continued changes in mental health economics, organizational structures and public policy.

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