

National Survey of Psychotherapy Training in Psychiatry, Psychology, and Social Work

Myrna M. Weissman, PhD; Helen Verdeli, PhD; Marc J. Gameroff, PhD; Sarah E. Bledsoe, MSW; Kathryn Betts, DCLinPsy; Laura Mufson, PhD; Heidi Fitterling, BA; Priya Wickramaratne, PhD

Context: Approximately 3% of the US population receives psychotherapy each year from psychiatrists, psychologists, or social workers. A modest number of psychotherapies are evidence-based therapy (EBT) in that they have been defined in manuals and found efficacious in at least 2 controlled clinical trials with random assignment that include a control condition of psychotherapy, placebo, pill, or other treatment and samples of sufficient power with well-characterized patients. Few practitioners use EBT.

Objective: To determine the amount of EBT taught in accredited training programs in psychiatry, psychology (PhD and PsyD), and social work and to note whether the training was elective or required and presented as a didactic (coursework) or clinical supervision.

Design, Setting, and Participants: A cross-sectional survey of a probability sample of all accredited training programs in psychiatry, psychology, and social work in the United States. Responders included training directors (or their designates) from 221 programs (73 in psychiatry, 63 in PhD clinical psychology, 21 in PsyD psychology, and 64 in master's-level social work). The overall response rate was 73.7%.

Main Outcome Measure: Requiring both a didactic and clinical supervision in an EBT.

Results: Although programs offered electives in EBT and non-EBT, few required both a didactic and clinical supervision in EBT, and most required training was non-EBT. Psychiatry required coursework and clinical supervision in the largest percentage of EBT (28.1%). Cognitive behavioral therapy was the EBT most frequently offered and required as a didactic in all 3 disciplines. More than 90% of the psychiatry training programs were complying with the new cognitive behavior therapy requirement. The 2 disciplines with the largest number of students and emphasis on clinical training—professional clinical psychology (PsyD) and social work—had the largest percentage of programs (67.3% and 61.7%, respectively) not requiring a didactic and clinical supervision in any EBT.

Conclusion: There is a considerable gap between research evidence for psychotherapy and clinical training. Until the training programs in the major disciplines providing psychotherapy increase training in EBT, the gap between research evidence and clinical practice will remain.

Arch Gen Psychiatry. 2006;63:925-934

Author Affiliations:

Department of Psychiatry, College of Physicians and Surgeons (Drs Weissman, Verdeli, Gameroff, Betts, Mufson, and Wickramaratne), Teacher's College (Dr Verdeli), Mailman School of Public Health (Drs Weissman and Wickramaratne and Ms Fitterling), and School of Social Work (Ms Bledsoe), Columbia University, New York, New York; and New York State Psychiatric Institute, New York (Drs Weissman, Verdeli, Gameroff, Betts, Mufson, and Wickramaratne and Ms Fitterling).

OVER THE LAST 15 YEARS, there has been increased interest in evidence-based practice in medicine.¹⁻³ This trend has filtered into the practice of psychotherapy. Some psychotherapies have been defined⁴ and tested in controlled clinical trials. A modest number of psychotherapy treatments that are evidence-based therapy (EBT) are now available.⁵⁻⁷ For a psychotherapy to be considered evidence based, there is general agreement that the procedures must be defined in a manual and found efficacious in at least 2 controlled clinical trials with random assignment to treatment.

Psychotherapy has remained a popular treatment over the decades and thera-

pists from different professional disciplines provide it. According to a 1998 report from the Substance Abuse and Mental Health Services Administration, there are approximately 35 000 psychiatrists, 73 000 psychologists, and 192 000 social workers in the United States working in mental health.⁸ Not all of these mental health professionals practice psychotherapy. However, there is evidence that a large number of adults receive psychotherapy from all 3 types of providers. A national probability sample of approximately 35 000 individuals in 14 000 households found that 3.2% of the adult population in 1987 and 3.6% in 1997 reported receiving psychotherapy annually mostly from these providers.⁹⁻¹²

There have been changes in the mix of both providers and recipients of psychotherapy. Psychotherapy with a physician (psychiatrists were not separated out in the 1997 survey) or social worker became more common, psychotherapy with a psychologist remained the same, and psychotherapy with other non-medical degree providers became less common between the decades.^{9,11,12} Although the percentage of persons seeing a professional for psychotherapy did not significantly increase from 1987 to 1997, those receiving psychotherapy in 1997 as compared with 1987 had significantly fewer visits, were older, and came from a broader range of socioeconomic groups.¹³ The likelihood of psychotherapy users receiving psychotropic medication nearly doubled (31% in 1987 to 58% in 1997). For a broad spectrum of patients, short-term psychotherapy combined with medication is the trend in the treatment of psychiatric disorders. Recent controversy about the possible adverse side effects of some medications in the treatment of depressed children will likely increase the use of psychotherapy.¹⁴

In 2001, the Josiah Macy, Jr, Foundation reviewed the gaps between research evidence and clinical practice.¹⁵ It concluded that if evidence-based interventions were to become part of clinical practice, their introduction needed to be made early in the major clinical training programs. These conclusions were echoed in 2003 in the president's New Freedom Commission on Mental Health, which also noted the gap between the availability of EBT, its actual use in clinical practice, and the lack of training in EBT by providers.¹⁶ Workshops and post-graduate continuing education (CE) symposia were considered only partial vehicles for practicing clinicians to learn new EBT. Continuing education programs are brief, unregulated, and inefficient. Moreover, lectures and readings alone have not been shown to change clinical practice.¹⁷ The combination of a didactic program and supervised clinical work is considered the gold standard for learning a new treatment. Previous surveys examining what is being taught in psychotherapy training programs have focused on only 1 professional group¹⁸⁻²²; have gauged attitudes and competence, but not actual training²³⁻²⁵; and/or have had low response rates.²⁶ This article reports the first results of a national survey of psychotherapy training based on a probability sample of all accredited psychiatry, clinical psychology (PhD and PsyD), and social work master's programs in the United States.

METHODS

DEVELOPMENT OF THE SURVEY

Because of the importance of a high response rate, the questionnaire had to be succinct and understandable and include the psychotherapies usually offered. Previous studies that surveyed only 1 discipline had in-depth questions not only about a particular evidence-based treatment (eg, behavioral therapy), but also about all adaptations of the treatment for a range of disorders. We felt that it was sufficient to learn whether a particular type of psychotherapy was taught at all and that the specific application would vary by faculty interest and expertise.

Because we could not include all psychotherapies in a brief survey, we conducted a pilot study using training program Web sites to identify which psychotherapeutic approaches were most frequently offered in the 3 disciplines. One hundred programs, including psychiatric residency (n=30), clinical psychology (PhD and PsyD) (n=40), and social work master's programs (MSW) (n=30), were selected consecutively from lists of accredited training programs in their respective disciplines in 2003. The Web sites varied considerably in specific information about the training content. Clarification of Web site information was obtained by mail or telephone calls to training directors. Seventy-four percent of the training directors contacted provided information that was not available on the Web site. The response rate of training directors did not vary by discipline.

Based on the pilot results, draft questions were developed and reviewed by experienced trainers and psychotherapy experts from the 3 disciplines. Also based on the pilot results, we targeted MSW programs, where advanced clinical training is concentrated. We separated PhD from PsyD programs in clinical psychology because of their different training goals. Programs for PsyD concentrate on clinical training whereas psychology PhD programs train for research and clinical practice.

The main survey was designed to be completed by training directors and to be Web based, although it could be mailed out if the respondent preferred. A Web site from which the survey could be completed was developed and beta-tested. The data from survey responders were stored and could be exported on demand to an Excel spreadsheet. Access to the database was secured by password. The final survey form included information on number of students, degree offered, and a list of 23 psychotherapies of which 7 were EBT (**Table 1**). The respondents were to check off whether the topic was offered as a didactic (lectures and reading) and/or clinical supervision and whether each was required or elective. We had 5 questions about courses related to good clinical practice. These data will be presented elsewhere.

Evidence-based therapy was defined briefly on the form as at least 2 randomized controlled trials of a manual-defined treatment. In classifying treatment as EBT, we also required that the trials have samples of sufficient power with well-characterized patients with specific psychiatric disorders; randomly assigned control conditions of psychotherapy, placebo, pill, or other treatment; and at least 2 different investigative teams demonstrating efficacy. Our definition was closest but not identical to that of Chambless and Ollendick.⁶ Respondents could give their own definitions of EBT in the space provided. Space was also provided for respondents to describe additional psychotherapies offered in their programs. Questions about obstacles and advantages to training students in EBT were included. Respondents were informed that the survey was designed to measure exposure to different psychotherapies and not to evaluate student competency or program quality. The survey took approximately 10 to 15 minutes to complete, was approved by the Columbia University and New York State Psychiatric Institute institutional review board, and is available on request to fitterlh@childpsych.columbia.edu.

SAMPLING

Five hundred fifty-two training programs (182 psychiatric residencies, 150 PhD programs in clinical psychology, 55 PsyD programs in psychology, and 165 social work programs) were identified from the accreditation rosters. The programs were divided by region (West, South, Midwest, Northeast) within disciplines, and a random sample of 300 of 552 programs (54.35% sampling within each discipline) was selected for the survey

Table 1. Weighted Percentage of Programs Offering and Requiring a Didactic by Discipline*

Didactic Topic	MD (n = 73)		PhD (n = 62)		PsyD (n = 21)		MSW (n = 62)	
	Offered	Required	Offered	Required	Offered	Required	Offered	Required
Evidence based								
Behavior therapy	86	77	90	68	88	72	87	70
Cognitive behavior therapy	99	99	100	89	100	96	93	80
Dialectical behavior therapy	74	37	56	27	52	8	47	13
Family therapy (manual-based)	39	7	47	10	40	4	46	12
Interpersonal psychotherapy	70	60	56	29	60	37	55	28
Multisystemic therapy	35	12	30	10	35	8	66	46
Parent training	43	19	58	22	52	13	53	15
Not evidence based								
Case management	64	54	45	23	36	12	83	80
Couples therapy	89	75	77	24	92	52	85	41
Existential psychotherapy	50	16	29	11	48	28	47	26
Family therapy (general)	99	93	79	21	100	80	98	83
Forensic psychotherapy	52	26	43	0	85	0	38	6
General psychotherapy (unspecified)	60	56	50	44	49	49	68	52
Gestalt psychotherapy	36	9	26	10	35	8	44	17
Group psychotherapy	95	90	60	13	96	80	90	73
Humanistic psychotherapy	35	11	40	26	68	43	55	34
Milieu psychotherapy	51	32	15	2	16	0	43	9
Psychoanalytic/psychodynamic psychotherapy	99	99	52	32	88	83	77	56
Psychoeducation	64	62	48	24	40	20	62	44
Short-term/time-limited psychotherapy	92	89	55	34	92	40	81	68
Social work counseling	28	1	11	0	0	0	84	82
Substance abuse counseling	80	75	37	6	65	24	89	20
Supportive psychotherapy	92	91	34	14	28	28	68	48

Abbreviations: MD, psychiatric residency programs; PhD, clinical psychology programs; PsyD, psychology programs; MSW, master's programs in social work.
*All values are percentages.

based on cost considerations. A 70% response rate would provide sufficient power to generalize results. The criteria for selecting the 300 programs were based on stratified random sampling with proportional allocation among the 16 region × discipline strata. Stratification was used to ensure that there would be sufficient programs in each discipline and region to make meaningful comparisons of programs across these stratification variables.

The directors of clinical training, or persons with an equivalent job title who were responsible for the academic curriculum and clinical work experience of students, were identified through university Web sites and by calling the departments. If the listed director had changed, the name of the new one was obtained. The survey began in May 2004 and ended in December 2004 after a 70% response rate within each discipline had been surpassed. Nonresponse was handled by resending the survey in 2- to 3-week intervals followed by mail contact and then telephone contact for nonresponders.

DATA ANALYSIS

We used χ^2 analysis on the unweighted data to examine whether response rates differed by discipline. For all subsequent analyses, we calculated variance estimates consistent with our stratified, without-replacement sampling design²⁷ using the SUDAAN statistical software package (Research Triangle Institute, Research Triangle Park, NC). The data were weighted by the inverse of the sampling fraction for each region × discipline stratum to provide estimates generalizable to the total population of 552 programs. Unit nonresponse did not vary significantly by discipline or region; therefore, incorporating a nonresponse adjustment on the basis of these variables was not in-

dicated. All tables include the weighted values, and standard errors and confidence intervals incorporate the design effects. We conducted a Wald F test to assess the association of program discipline with program size (ie, number of students per year). Weighted means and medians of number of students were calculated for each discipline.

For each program, we determined which EBTs and which non-EBTs met the training gold standard, ie, required both a didactic and clinical supervision. Because the number of EBTs and non-EBTs differed, we divided each of the observed totals by the appropriate denominator (7 or 16), which enabled us to directly compare the percentage of EBTs and percentage of non-EBTs meeting the training gold standard. We arcsine-transformed these 2 variables to make their distributions more normal, hence more suitable as outcome variables in regressions. The percentages displayed in the results, however, are the raw percentages. Subsequently, for each discipline separately, we used a paired *t* test to determine whether the 2 mean percentages were equal.

We classified all sampled programs as to whether they offered and/or required didactics and/or clinical supervision in each of the topics. For each topic, we examined whether the disciplines differed in the likelihood that they (a) offered a didactic, (b) required a didactic, (c) offered clinical supervision, and (d) required clinical supervision. To conduct all pairwise comparisons among disciplines while protecting against an excessively high type I error rate, we used a Bonferroni correction for each family of pairwise tests. As there were 4 disciplines, each family of tests involved 6 comparisons. To keep the α for each family of tests at .05 (2-tailed), we set α at .0833 ($= .05 \div 6$) for each comparison.

Table 2. Number and Proportion of EBTs and Non-EBTs for Which Programs Require Both a Didactic and Clinical Supervision by Discipline*

Requiring Didactic and Clinical Supervision	MD (n = 73)	PhD (n = 62)	PsyD (n = 21)	MSW (n = 62)
EBTs				
None, %	4.3	43.8	67.3	61.7
Mean (SE), No.	2.0 (0.1)†	1.2 (0.1)‡	0.8 (0.4)‡§	0.7 (0.1)§
Median, No.	1.3	0.3	0	0
EBTs, %	28.1†	16.5‡	11.5‡§	9.8§
Non-EBTs				
None, %	2.8	41.9	62.7	34.1
Mean (SE), No.	7.3 (0.2)†	1.1 (0.1)‡	0.6 (0.1)§	3.1 (0.3)||
Median, No.	6.9	0.3	0	1.8
Non-EBTs, %	45.6†	6.9‡	3.6§	19.7||

Abbreviations: EBTs, evidence-based therapies; MD, psychiatric residency programs; PhD, clinical psychology programs; PsyD, psychology programs; MSW, master's programs in social work.

*All percentages, means, and medians are weighted national estimates.

†Significant pairwise difference ($P < .0083$) with each discipline not marked with †.

‡Significant pairwise difference ($P < .0083$) with each discipline not marked with ‡.

§Significant pairwise difference ($P < .0083$) with each discipline not marked with §.

||Significant pairwise difference ($P < .0083$) with each discipline not marked with ||.

RESULTS

RESPONSE RATE

Two hundred twenty-one of the 300 programs sampled responded to the survey for an overall response rate of 73.7% (psychiatry, 73.7% [73/99]; PhD psychology, 76.8% [63/82]; PsyD psychology, 70.0% [21/30]; social work, 71.9% [64/89]). The response rate did not vary significantly by discipline ($\chi^2_3 = 0.77, P = .86$) or region ($\chi^2_3 = 1.66, P = .65$). Three responding programs did not provide sufficient data for analysis; all further analyses were based on the remaining 218 programs.

PROGRAM SIZE

There were significant differences in program size by discipline (Wald $F_{3,202} = 51.3, P < .001$). (One program did not provide number of students.) Master's programs in social work had by far the largest number of students per year (mean \pm SE, 198 ± 15), followed by PsyD (mean \pm SE, 48 ± 10), psychiatric residency (mean \pm SE, 17 ± 2), and PhD clinical psychology (mean \pm SE, 17 ± 3). The weighted median number of students (with raw ranges in parentheses) were, respectively, 163 (20-650), 28 (10-190), 8 (2-120), and 7 (3-200). These differences in number of students were also reflected in the workforce in these disciplines.⁸

PROGRAMS REQUIRING BOTH DIDACTIC AND CLINICAL SUPERVISION

Table 2 lists the number of programs requiring the gold standard of training, both a didactic and clinical supervision. Overall, the gold standard was met on average for only 17.8% of the EBTs and 23.2% of the non-EBTs. The 2 disciplines geared exclusively to clinical mental health practice, both with the largest number of students (PsyD

and MSW programs), had the largest percentage of programs (67.3% and 61.7%, respectively) not requiring the gold standard in any EBT. These 2 disciplines required gold standard training in an average of about 10% of the EBTs. Psychiatric residency programs met the EBT gold standard significantly more than all other disciplines (compared with PhD, $t_{127} = 6.44, P < .001$; compared with PsyD, $t_{86} = 3.71, P < .001$; compared with MSW, $t_{127} = 9.79, P < .001$), and PhD programs met this standard significantly more than MSW programs ($t_{116} = 2.84, P = .005$). Overall, psychiatry had the highest percentage of gold standard training in EBT (28.1% of EBT) and non-EBT (45.6% of non-EBT). Although they may have offered courses or clinical supervision in EBT, they rarely required both for a particular psychotherapy. In psychiatry and social work, a lower percentage of EBTs met the gold standard as compared with non-EBTs whereas the opposite was true for PhD and PsyD programs. Within each discipline, the percentage of gold standard EBTs was not significantly related to region (data not shown).

TYPES OF PSYCHOTHERAPIES AND COURSES

Table 1 gives the percentage of programs that offered and required a didactic in each of the EBT and non-EBT treatments. The same material is presented in **Table 3** for supervised clinical work. Significant differences among disciplines in whether the topic is offered or not, and whether it is required or not, are presented for didactics in **Table 4** and for clinical supervision in **Table 5**.

Most programs offered as an elective at least 1 didactic in a range of EBTs and non-EBTs. However, fewer programs required didactics in either EBT or non-EBT. With the exception of dialectical behavior therapy, which was offered more frequently in psychiatric residency, and multisystemic therapy, which was offered more frequently in social work programs, there was no significant difference in EBTs offered by discipline. Significantly more EBTs

Table 3. Weighted Percentage of Programs Offering and Requiring Clinical Supervision by Discipline*

Clinical Supervision Topic	MD (n = 73)		PhD (n = 62)		PsyD (n = 21)		MSW (n = 62)	
	Offered	Required	Offered	Required	Offered	Required	Offered	Required
Evidence based								
Behavior therapy	78	48	90	34	76	20	64	13
Cognitive behavior therapy	94	93	97	53	76	20	66	21
Dialectical behavior therapy	72	8	69	5	56	4	46	0
Family therapy (manual-based)	39	1	50	5	32	0	42	5
Interpersonal psychotherapy	64	29	66	11	60	24	43	7
Multisystemic therapy	35	11	37	0	40	4	51	18
Parent training	40	11	76	13	68	8	54	6
Not evidence based								
Case management	69	55	63	26	60	20	68	40
Couples therapy	85	46	86	8	72	0	63	10
Existential psychotherapy	43	1	39	0	55	0	34	2
Family therapy (general)	90	69	84	8	68	0	72	34
Forensic psychotherapy	50	19	48	0	72	0	38	2
General psychotherapy (unspecified)	53	50	58	31	53	29	59	25
Gestalt psychotherapy	36	1	29	0	44	0	33	4
Group psychotherapy	92	81	79	8	72	0	70	37
Humanistic psychotherapy	33	5	45	6	52	0	40	11
Milieu psychotherapy	54	36	28	0	56	4	45	2
Psychoanalytic/psychodynamic psychotherapy	97	96	57	10	72	8	57	15
Psychoeducation	74	67	63	18	64	4	57	17
Short-term/time-limited psychotherapy	92	86	73	26	76	12	66	30
Social work counseling	28	1	11	0	4	0	70	56
Substance abuse counseling	82	75	55	0	61	0	67	8
Supportive psychotherapy	94	93	55	10	60	12	61	29

Abbreviations: MD, psychiatric residency programs; PhD, clinical psychology programs; PsyD, psychology programs; MSW, master's programs in social work.
*All values are percentages.

were required as didactics in psychiatry as compared with the other disciplines with a few exceptions. Non-EBTs were required as a didactic significantly more often in psychiatry vs the other disciplines. Social work programs as compared with the other disciplines offered and required significantly more didactics in case management and social work counseling.

Cognitive behavior therapy (CBT) was by far the most frequent EBT offered across the disciplines, more than 90% in each discipline. Required clinical supervision in CBT was significantly more likely in psychiatric residency as compared with the other disciplines. More than 80% of the disciplines offered couples therapy, family therapy, and group therapy, but far fewer required them.

Like didactics, the rates of clinical supervision offered as an elective were quite high, but the number requiring clinical supervision in EBT and non-EBT was considerably lower (Table 3). Psychiatric residency programs as compared with other disciplines significantly more often required clinical supervision in EBT as well as in non-EBT treatments. The lowest rates of required clinical supervision in EBT were in PsyD and social work (Table 5). Only 20% of PsyD and 21% of MSW programs required supervision in CBT, the most popular of the EBTs. The numbers for required clinical supervision were far lower for the other EBTs except for interpersonal psychotherapy, where 24% of the PsyD programs require it. For PsyD programs, required clinical supervision was mainly in case management (20%) and general unspecified psy-

chotherapy (29%), and most of the other non-EBTs did not have required supervision.

ADVANTAGES AND OBSTACLES

Although more than 80% of the programs saw some advantage to offering training in EBT, and nearly two thirds felt it resulted in better patient care, there were also significant differences by discipline. Directors in all disciplines were equally likely to see any advantage. Directors of PhD clinical psychology programs had the highest rates of endorsement for 7 of the 8 advantages (Table 6). The obstacles also varied by discipline. Directors of psychiatry residency programs were significantly more likely than all other disciplines to endorse obstacles. More than half of the psychiatry program directors identified lack of trainee interest and approximately one third identified difficulty teaching EBT and lack of qualified faculty as obstacles.

OTHER DEFINITIONS OF EBT AND OTHER EBT

Eleven respondents (2 psychiatry residency, 3 PhD, 1 PsyD, and 5 MSW) commented on the question about alternative definitions of EBT. One agreed with the definition, one could not find our definition on the form, and others (n=6) wanted evidence other than clinical trials, such as theory, clinical experience, and case reports.

Table 4. Differences Among Disciplines in Offering and Requiring a Didactic

Didactic Topic	Significant Pairwise Differences*	
	Offered (vs Not Offered)	Required (vs Elective or Not Offered)
Evidence based		
Behavior therapy	...	...
Cognitive behavior therapy	...	MD>PhD, MSW; PsyD>MSW
Dialectical behavior therapy	MD>PhD, MSW	MD, PhD>PsyD; MD>MSW
Family therapy (manual-based)	...	...
Interpersonal psychotherapy	...	MD>PhD, MSW
Multisystemic therapy	MSW>MD, PhD	MSW>all others
Parent training	...	...
Not evidence based		
Case management	MSW>all others; MD>PhD	MSW>MD>PhD, PsyD
Couples therapy	...	MD>all others; PsyD>PhD
Existential psychotherapy	MD>PhD	...
Family therapy (general)	All others>PhD	All others>PhD
Forensic psychotherapy	PsyD>all others	MD>all others
General psychotherapy (unspecified)	...	...
Gestalt psychotherapy	MSW>PhD	...
Group psychotherapy	All others>PhD	All others>PhD; MD>MSW
Humanistic psychotherapy	PsyD>MD, PhD; MSW>MD	PhD, MSW>MD
Milieu psychotherapy	MD>PhD, PsyD; MSW>PhD	MD>all others; MSW>PsyD
Psychoanalytic/psychodynamic psychotherapy	All others>PhD; MD>MSW	MD>PsyD>MSW>PhD
Psychoeducation	...	MD>PhD, PsyD; MSW>PhD
Short-term/time-limited psychotherapy	All others>PhD	MD>all others; MSW>PhD
Social work counseling	MSW>MD>PhD>PsyD	MSW>all others
Substance abuse counseling	All others>PhD; MSW>PsyD	MD>all others; MSW>PhD
Supportive psychotherapy	MD>MSW>PhD, PsyD	MD>all others; MSW>PhD

Abbreviations: MD, psychiatric residency programs; PhD, clinical psychology programs; PsyD, psychology programs; MSW, master's programs in social work; ellipsis, no 2 disciplines differed at $P<.0083$.

*All statistically significant differences between pairs of disciplines are shown. For a single family of comparisons (ie, a single topic where the comparison was either between "offered vs not offered" or between "required vs elective or not offered"), each possible pair of disciplines was compared using an α of .0083 ($= .05 \div 6$). This Bonferroni-type correction was applied to maintain a maximum family-wise type I error rate of .05.

Thirty-six respondents (6 psychiatry residency, 9 PhD, 7 PsyD, and 14 MSW) wrote in other psychotherapies. One of the suggestions was a variant of CBT and 27 other psychotherapies were listed, all of which were treatments for which no manuals and/or clinical trials have been developed (eg, therapy using journaling activity, play therapy, coping with cancer, children of divorce adjustment, acceptance commitment therapy) or were non-specific (eg, "anxiety disorder treatment" or "eating disorder treatment").

COMMENT

The major findings of this national survey are that training programs offered as electives a range of psychotherapies (mostly non-EBT) and often did not require the gold standard of didactic and clinical supervision for EBT or non-EBT. However, a higher percentage of non-EBTs meet the training gold standard as compared with EBTs. The 2 disciplines with the largest number of students and the emphasis on training for clinical practice (PsyD and MSW) required the lowest percentage of gold standard training in EBT. Although all of the disciplines offered as electives courses in a range of psychotherapies, including EBT, the required clinical supervision training was largely in non-EBT, particularly in psychiatry. Among the EBTs, CBT remained the best disseminated among all the disciplines. In psychiatry, this was likely due to the CBT re-

quirement passed by the psychiatry accreditation board. Even though psychiatry reported the highest percentage of obstacles to EBT, more than 90% of the psychiatry residency programs were complying. Accreditation requirement, rather than voluntary changes, seemed to be effective in changing practice. The number of obstacles reported in psychiatry may have been due to the strain in meeting the recent accreditation requirement for adding CBT. The PhD clinical psychology programs were the most positive about EBT. This may have been due to the success of CBT, which was developed in close collaboration with PhD psychologists who were often involved in the trials. The obstacle that training in EBT was "too time-consuming" mentioned by 20% of psychiatry training directors needs to be considered in light of the large number of non-EBTs taught. Alternatively, non-EBT may be less time-consuming to teach because without manuals it may require less precision.

This training situation poses problems for patient care and research. The bulk of clinicians are being trained in psychotherapy that has no basis in evidence from controlled clinical trials. Clinical experience suggests that some approaches are effective but have just not been subjected to clinical trials. Although there may be justification for teaching treatment for which there is rather little empirical evidence, there is little justification for the exclusion of teaching psychotherapies when the evidence is robust. The addition of research-oriented faculty to the clinical

Table 5. Differences Among Disciplines in Offering and Requiring Clinical Supervision

Clinical Supervision Topic	Significant Pairwise Differences*	
	Offered (vs Not Offered)	Required (vs Elective or Not Offered)
Evidence based		
Behavior therapy	PhD>MSW	MD, PhD>MSW
Cognitive behavior therapy	PhD>PsyD, MSW; MD>MSW	MD>all others; PhD>MSW
Dialectical behavior therapy	MD, PhD>MSW	MD>MSW
Family therapy (manual-based)	...	...
Interpersonal psychotherapy	MD, PhD>MSW	MD>PhD, MSW
Multisystemic therapy	...	MSW>PhD, PsyD; MD>PhD
Parent training	PhD>MD, MSW; PsyD>MD	...
Not evidence based		
Case management	...	MD>PhD, PsyD
Couples therapy	MD, PhD>MSW	All others>PsyD; MD>PhD, MSW
Existential psychotherapy	...	...
Family therapy (general)	MD>PsyD, MSW	MD>MSW>PhD>PsyD
Forensic psychotherapy	PsyD>PhD, MSW	MD>all others
General psychotherapy (unspecified)	...	MD>all others
Gestalt psychotherapy	...	...
Group psychotherapy	MD>all others	MD>MSW>PhD>PsyD
Humanistic psychotherapy	...	PsyD>PhD, MSW
Milieu psychotherapy	MD, PsyD>PhD	MD>all others
Psychoanalytic/psychodynamic psychotherapy	MD>all others	MD>all others
Psychoeducation	...	MD>all others; PhD>PsyD
Short-term/time-limited psychotherapy	MD>PhD, MSW	MD>all others; MSW>PsyD
Social work counseling	MSW>MD>PhD, PsyD	MSW>all others
Substance abuse counseling	MD>PhD	MD>all others; MSW>PhD, PsyD
Supportive psychotherapy	MD>all others	MD>all others; MSW>PhD

Abbreviations: MD, psychiatric residency programs; PhD, clinical psychology programs; PsyD, psychology programs; MSW, master's programs in social work; ellipsis, no 2 disciplines differed at $P<.0083$.

*All statistically significant differences between pairs of disciplines are shown. For a single family of comparisons (ie, a single topic where the comparison was either between "offered vs not offered" or between "required vs elective or not offered"), each possible pair of disciplines was compared using an α of .0083 ($= .05 \div 6$). This Bonferroni-type correction was applied to maintain a maximum family-wise type I error rate of .05.

training programs may accelerate this change. This may be more difficult in PsyD programs, which are not tied to academic settings. There has been concern raised about the academic standards of PsyD programs that are freestanding and not tied to universities.²⁸ In our sample, only 2 of the 21 PsyD programs sampled were freestanding.

Currently, the accreditation criteria for psychiatry residency programs set forth by the Accreditation Council for Graduate Medical Education (2000) do not emphasize training in EBTs.²⁹ However, psychiatry is further along than the other professions in that CBT was recently included in the new accreditation requirements. The 90% compliance in psychiatry shows the importance of accreditation in changing practice. The psychiatry residency psychotherapy criteria emphasize training toward competency. The criteria for competence are variable, and standards are being developed.^{21,30,31} Manual EBTs, such as those identified in clinical practice guidelines, are not emphasized, and non-EBT psychotherapy still comprises the bulk of training. The plan is to continue to move in the direction of defining and standardizing competency criteria rather than emphasizing training in specific EBTs.

Guidelines set forth by the Committee on Accreditation (2005) of the American Psychological Association include both PhD and PsyD programs and state that training should be based on "the science of psychology"^{32(p22)} but allow programs to state their own philosophy of train-

ing. Programs may choose to ignore EBT approaches that are not consistent with their philosophy of training. The guidelines note that during the 1-year internship required for PhD and PsyD programs, interns "demonstrate an intermediate to advanced level of professional psychological skills, abilities, proficiencies, competencies, and knowledge in the areas of . . . [t]heories and methods of assessment and diagnosis and effective intervention (including empirically supported treatments)".^{32(p23)} What constitutes EBT, whether it is required, or how it will be implemented is not defined.

The Council on Social Work Education (2004) does not prescribe any particular curriculum for teaching psychotherapy or counseling.³³ There is mention of, but no mandate for, including empirically based approaches. Students are expected to become competent and effective practitioners to apply empirical knowledge to their practice. There is a statement that practice content includes identifying, analyzing, and implementing empirically based interventions designed to achieve client goals. There are no guidelines as to how this is achieved. Most clinical training occurs through fieldwork in hospitals or social service agencies. The inclusion of EBT would require modification of this training structure. Social work faculty do not consider their mandate as training in psychotherapy. However, a national survey showed that social workers are providing psychotherapy annually to 0.5% of the adult population.^{8,9}

Table 6. Advantages and Obstacles to EBT by Discipline*

Advantage or Obstacle	MD (n = 73)†	PhD (n = 62)	PsyD (n = 21)	MSW (n = 62)
Advantages				
Better patient care, %	61.4	72.6†	47.7†	70.1†
Economical, %	54.9	72.6†	60.6†‡	45.3†
Easy to teach, %	46.4	77.5†	52.1†‡	37.5†
Targeted to disorders, %	35.5	69.5‡	44.1†‡	36.0†
Trainee interest, %	36.1	59.8‡	40.7†‡	30.6†
Training materials available, %	19.0	33.8†‡	35.5†‡	45.6‡
Brief/time-limited, %	22.1	43.7‡	16.2†‡	18.5†
Third-party reimbursement, %	16.6	43.5‡	28.0†‡	12.9†
Any of these advantages, %	87.1	93.5†	80.0†	84.9†
Advantages, mean (SE), No.	2.9 (0.2)	4.7 (0.2)‡	3.3 (0.9)†‡	3.0 (0.2)†
Obstacles				
Lack of trainee interest, %	52.0	25.9‡	7.7§	27.6‡
Too difficult to teach, %	36.6	9.7‡	8.2‡	9.6‡
Do not have qualified faculty, %	29.9	11.4‡	3.8‡	6.9‡
Funds unavailable, %	21.9	6.5‡	3.8‡	20.6†
Too time-consuming, %	20.0	3.2‡	11.5†‡	3.3‡
Not relevant, %	4.3	1.6†	7.7†	4.7†
Need more evidence, %	7.9	1.7†‡	3.8†‡	0‡
Does not work in clinical practice, %	2.8	4.8‡§	3.8‡	3.2§
Any of these obstacles, %	81.7	45.3‡§	35.1‡	54.2§
Obstacles, mean (SE), No.	1.8 (0.1)	0.6 (0.1)‡	0.5 (0.1)‡	0.8 (0.1)‡

Abbreviations: EBT, evidence-based therapy; MD, psychiatric residency programs; PhD, clinical psychology programs; PsyD, psychology programs; MSW, master's programs in social work.

*All percentages and means are weighted national estimates.

†Significant pairwise difference ($P < .0083$) with each discipline not marked with †.

‡Significant pairwise difference ($P < .0083$) with each discipline not marked with ‡.

§Significant pairwise difference ($P < .0083$) with each discipline not marked with §.

No formal process exists to disseminate and train practitioners in the use of EBTs.³⁴ Continuing education programs have the potential to fill this void. Continuing education credits are required in psychiatry and psychology to maintain licensure. However, not all states require licensure in social work, and states that require licensure do not necessarily require CE. This, of course, does not take into account the quality of CE. Workshops are given on specific EBTs at the annual meetings of psychiatrists and psychologists. Periodically, CE workshops outside the professional organizations are offered. However, none of the mental health groups require updated training in EBT. There is no way to ensure the transfer of these treatments to established practitioners or to set standards or monitor quality. Moreover, a study of the effect of CE sessions showed that CE sessions that provide an opportunity to practice skills can effect change in practice, but didactic lectures without interactive supervision do not change the clinicians' performance.¹⁷

The paucity of clinicians trained in EBT poses more constraints on effectiveness treatment research as compared with efficacy treatment research.³⁵ The former is supposed to assess the effectiveness of EBT developed and tested in highly specialized research clinics when it is transported to community practice. The EBTs in effectiveness studies are supposed to be delivered by personnel already employed in these settings. Easy transportability proves to be problematic because the clinicians are rarely trained in EBT and must first be trained before the effectiveness study can be undertaken.

There are limitations to this survey. We focused on trainee exposure to the material and did not evaluate quality or content of the courses or supervision. We had considerable discussion about our classification of EBTs. Other criteria for EBT are available. Ours was closest to the widely used Chambless and Ollendick criteria for psychotherapy⁶ and to the Food and Drug Administration's criteria for new medications.¹⁶ We will be exploring the results using other definitions. We also know that there are many adaptations of CBT and interpersonal psychotherapy for different disorders or age groups. Rather than list all the adaptations, which would have substantially lengthened the form, we decided that it was more important to determine whether any form of an EBT was taught because the adaptation would be secondary training. There was ambiguity about some additional possible EBTs; eg, many psychotherapies have a psychoeducation component. However, we could not find specific psychoeducation manuals and treatments that met standard criteria for EBT. The same was true for group therapy. Both CBT and interpersonal psychotherapy have group therapy adaptations, but most group therapy is neither; therefore, we classified group psychotherapy (not further specified) as non-EBT. Family therapy also has many variants, so we separated manual-based family therapy³⁶ from general family therapy. Additionally, a recent meta-analysis of 17 studies reported that short-term psychodynamic psychotherapy may be efficacious for a range of disorders.³⁷ This meta-analysis had rigorous inclusion criteria, including randomized controlled trials, the

use of treatment manuals, and the treatment of patients with specific psychiatric disorders. Nevertheless, different models of short-term psychodynamic psychotherapy were applied, and more than 10 different disorders were investigated. The effects of specific interventions were not demonstrated by at least 2 investigators or teams. In addition, 6 of the 17 studies reviewed referred to treatments of more than 24 sessions, which is regarded as long-term and not short-term.³⁸ Therefore, psychodynamic psychotherapy did not meet our inclusion criteria for EBT.

The number of PsyD programs in our sample was low compared with the other disciplines. Although we used the same sampling frame for all disciplines and the response rates did not differ by discipline, some caution is warranted in interpreting our results for PsyD programs.

We realized that there are more non-EBT psychotherapies than the ones we listed. Based on the pilot study, these were the ones more commonly mentioned in the training programs' Web pages and by training directors. We also gave the respondents an opportunity to add other EBTs if they wanted. Only 36 (16.5%) of 218 respondents wrote in different treatments. One treatment was an adaptation of EBT already included in the survey, but the others were without any manuals or any evidence from controlled clinical trials.

In undertaking this survey, we are supportive of EBT. This position is not without controversy. Concerns have been raised that manuals will do damage to the breadth of clinical training,³⁹ that randomized controlled trials are not valid tests of psychotherapy,^{40,41} and that therapeutic alliance/allegiance and skillfulness and naturalistic studies should define psychotherapy outcome.^{42,43} Cogent arguments against the latter positions have also appeared.^{44,45}

In summary, training programs in the 3 major disciplines providing psychotherapy had some elective didactics on most of the EBTs, but a smaller percentage offered clinical supervision in EBT, and few met the gold standard of requiring both a didactic and clinical supervision in EBTs. Both the clinician making a patient referral to psychotherapy and the patient receiving it cannot be certain of the evidence on which the treatment will be based. It is especially important in the treatment of psychiatric disorders where many patients receive psychotherapy with or without medication. There needs to be a shift to more required EBT in the major disciplines providing training in psychotherapy, more testing in controlled clinical trials of the psychotherapies widely taught and used in practice but untested, and more testing of EBTs in actual clinical practice. Some of the psychotherapies with less supporting evidence are being tested. Now there is a gap between research evidence for psychotherapy and training practices.

Submitted for Publication: October 19, 2005; accepted December 20, 2005.

Correspondence: Myrna M. Weissman, PhD, Department of Psychiatry, College of Physicians and Surgeons of Columbia University, New York State Psychiatric Institute, 1051 Riverside Dr, Unit 24, New York, NY 10032 (mmw3@columbia.edu).

Acknowledgment: This work was supported by a grant from the Josiah Macy, Jr, Foundation (M.M.W., princi-

pal investigator). Dr Weissman was one of the developers of an evidence-based treatment (interpersonal psychotherapy). Consultants in the study design, survey form, or manuscript review by discipline were as follows: psychiatry, Aaron T. Beck, MD; Glen O. Gabbard, MD; Beatrix (Betty) A. Hamburg, MD; Lisa A. Mellman, MD; and Ronald Rieder, MD; psychology, Judith Beck, PhD; Dianne Chambless, PhD; Paul Crits-Christoph, PhD; Steve D. Hollon, PhD; Julian Manetti-Cusa, PsyD; William C. Sanderson, PhD; and Shelia R. Woody, PhD, RPsych; and social work, Edward J. Mullen, DSW, and Kathryn S. Collins, PhD.

REFERENCES

- Hamilton J. Clinician's guide to evidence-based practice. *J Am Acad Child Adolesc Psychiatry*. 2005;44:494-498.
- Sackett DL, Rosenberg WMC, Gray JAM, Haynes RB, Richardson WS. Evidence based medicine: what it is and what it isn't. *BMJ*. 1996;312:71-72.
- Guyatt G, Rennie D, eds. *Users' Guides to the Medical Literature: A Manual for Evidence-Based Clinical Practice*. Chicago, Ill: AMA Press; 2002.
- Woody SR, Sanderson WC. Manuals for empirically supported treatments: 1998 update from the task force on psychological interventions. *Clin Psychol*. 1998; 51:17-21.
- Roth A, Fonagy P. *What Works for Whom? A Critical Review of Psychotherapy Research*. 2nd ed. London, England: Guilford; 2004.
- Chambless DL, Ollendick TH. Empirically supported psychological interventions: controversies and evidence. *Annu Rev Psychol*. 2001;52:685-716.
- Nathan PE, Gorman JM, eds. *A Guide to Treatments That Work*. New York, NY: Oxford Univ. Press; 1998.
- Insel TR. Science to service: mental health care after the decade of the brain. Presented at: 8th Annual Meeting of the Society for Social Work and Research; New Orleans, La; January 16, 2004.
- Olfson M, Marcus SC, Druss B, Pincus HA. National trends in the use of psychotherapy. *Am J Psychiatry*. 2002;159:1914-1920.
- Cohen S, DiGaetano R, Waksberg J. Sample design of the 1987 household survey: National Medical Expenditure Survey, methods 3 [AHCPR Publication 91-0037]. Rockville, Md: Agency for Health Care Policy and Research; 1991.
- Medical Expenditure Panel Survey fact sheets. Agency for Healthcare Research and Quality. <http://www.meps.ahrq.gov/whatis/meps/bulletin.htm>. Accessed on June 13, 2006.
- Edwards WS, Berlin M. Questionnaires and data collection methods for the Household Survey and the Survey of American Indians and Alaska Natives: National Medical Expenditure Survey, methods 2 [DHHS Publication PHS-89-3450]. Rockville, Md: Public Health Service; 1989.
- Wei W, Sambamoorthi U, Olfson M, Walkup J, Crystal S. Use of psychotherapy for depression in older adults. *Am J Psychiatry*. 2005;162:711-717.
- Weller EB, Tucker S, Weller RA. The selective serotonin reuptake inhibitors controversy in the treatment of depression in children. *Curr Psychiatry Rep*. 2005; 7:87-90.
- Weissman MM, Sanderson WC. Promises and problems in modern psychotherapy: the need for increased training in evidence-based treatments. In: Hager M, ed. *Modern Psychiatry: Challenges in Educating Health Professionals to Meet New Needs*. New York, NY: Josiah Macy, Jr, Foundation; 2002:132-165.
- Achieving the Promise: Transforming Mental Health in America. Final Report [DHHS Publication SMA-03-3832]. New Freedom Commission on Mental Health. 2003; <http://www.mentalhealthcommission.gov/reports/FinalReport/downloads/FinalReport.pdf>. Accessed on June 13, 2006.
- Davis D, O'Brien MA, Freemantle N, Wolf FM, Mazmanian P, Taylor-Vaisey A. Impact of formal continuing medical education: do conferences, workshops, rounds, and other traditional continuing education activities change physician behavior or health care outcomes? *JAMA*. 1999;282:867-874.
- Crits-Christoph P, Frank E, Chambless DL, Brody C, Karp JF. Training in empirically validated therapies: what are clinical psychology students learning? *Prof Psychol Res Pr*. 1995;26:514-522.
- Ravitz P, Silver I. Advances in psychotherapy education. *Can J Psychiatry*. 2004; 49:230-237.
- Sherhoff ES, Kratochwill TR, Stoiber KC. Training in evidenced based interventions (EBIs): what are school psychology programs teaching? *J Sch Psychol*. 2003;41:467-483.
- Yager J, Kay J. Assessing psychotherapy competence in psychiatric residents: getting real. *Harv Rev Psychiatry*. 2003;11:109-112.

22. Chambless DL, Baker MJ, Baucom DH, Beutler LE, Calhoun KS, Crits-Christoph P, Daiuto A, DeRubeis R, Detweiler J, Haaga DAF, Johnson SB, McCurry S, Mueser KT, Pope KS, Sanderson WC, Shoham V, Stickle T, Williams DA, Woody SR. Update on empirically validated therapies, II. *Clin Psychol*. 1998;51:3-16.
23. Walsh J, Green R, Matthews J, Bonucelli-Puerto B. Social workers' views of the etiology of mental disorders: results of a national study. *Soc Work*. 2005;50:43-52.
24. Mellman LA, Beresin E. Psychotherapy competencies: development and implementation. *Acad Psychiatry*. 2003;27:149-153.
25. Addis ME, Krasnow AD. A national survey of practicing psychologists' attitudes toward psychotherapy treatment manuals. *J Consult Clin Psychol*. 2000;68:331-339.
26. Mullen EJ, Bacon W. A survey of practitioner adoption and implementation of practice guidelines and evidence-based treatments. In: Roberts AR, Yeager KR, eds. *Evidence-Based Practice Manual: Research and Outcome Measures in Health and Human Services*. New York, NY: Oxford University Press; 2004:chap 21.
27. Cochran WG. *Sampling Techniques*. 3rd ed. New York, NY: Wiley; 1977:7.
28. Peterson DR. *Educating Professional Psychologists*. Washington, DC: American Psychological Association; 1997.
29. Common program requirements. Accreditation Council for Graduate Medical Education. http://www.acgme.org/acWebsite/dutyHours/dh_dutyHoursCommonPR.pdf. Accessed on June 13, 2006.
30. Gabbard GO. Evaluating core competencies in long term psychodynamic psychotherapy. In: *Long Term Psychotherapy: A Basic Text*. Washington, DC: American Psychiatric Publishing; 2004:chap 11.
31. Beresin E, Mellman L. Competencies in psychiatry: the outcomes-based approach to medical training and education. *Harv Rev Psychiatry*. 2002;10:185-191.
32. Guidelines and principles for accreditation of programs in professional psychology. American Psychological Association Committee on Accreditation (2006). <http://www.apa.org/ed/accreditation/intern.html>. Accessed on June 13, 2006.
33. Educational policy and accreditation standards (2004). Council on Social Work Education. http://www.cswe.org/accreditation/EPAS_Revised_10-2004.pdf. Accessed on June 13, 2006.
34. Calhoun KS, Moras K, Pilkonis PA, Rehm LP. Empirically supported treatments: implications for training. *J Consult Clin Psychol*. 1998;66:151-162.
35. Mufson LH, Dorta KP, Olfson M, Weissman MM, Hoagwood K. Effectiveness research: transporting interpersonal psychotherapy for depressed adolescents (IPT-A) from the lab to school-based health clinics. *Clin Child Fam Psychol Rev*. 2004;7:251-261.
36. Szapocznik J, Williams RA. Brief strategic family therapy: twenty-five years of interplay among theory, research and practice in adolescent behavior problems and drug abuse. *Clin Child Fam Psychol Rev*. 2000;3:117-135.
37. Leichsenring F, Rabung S, Leibing E. The efficacy of short-term psychodynamic psychotherapy in specific psychiatric disorders: a meta-analysis. *Arch Gen Psychiatry*. 2004;61:1208-1216.
38. Gabbard GO. *Long-Term Psychodynamic Psychotherapy*. Washington, DC: American Psychiatric Publishing; 2004.
39. Henry WP. Science, politics, and the politics of science: the use and misuse of empirically validated treatment research. *Psychother Res*. 1998;8:126-140.
40. Persons JB, Silberschatz G. Are results of randomized trials useful to psychotherapists? *J Consult Clin Psychol*. 1998;66:126-135.
41. Westen D, Novotny CM, Thompson-Brenner H. The empirical status of empirically supported psychotherapies: assumptions, findings, and reporting in controlled clinical trials. *Psychol Bull*. 2004;130:631-663.
42. Roth AD, Parry G. The implications of psychotherapy research for clinical practice and service development: lessons and limitations. *J Ment Health*. 1997;6:367-380.
43. Leichsenring F. Randomized controlled vs naturalistic studies: a new research agenda. *Bull Menninger Clin*. 2004;68:137-151.
44. Beutler LE. Identifying empirically supported treatments: what if we didn't? *J Consult Clin Psychol*. 1998;66:113-120.
45. Crits-Christoph P, Wilson GT, Hollon SD. Empirically supported psychotherapies: comment on Westen, Novotny, and Thompson-Brenner (2004). *Psychol Bull*. 2005;131:412-417.