

2005 AWARD WINNERS



DISTINGUISHED PROFESSIONAL CONTRIBUTIONS

The 2005 recipients of the
APA Professional Contribution Awards
were selected by the 2004 Board of Professional
Affairs (BPA). The members of BPA in 2004 were
Jalie A. Tucker, PhD, MPH (Chair);
Rosie Phillips Bingham, PhD; Stephen T. DeMers, EdD;
Rita Dudley-Grant, PhD, MPH; Kristin A. Hancock, PhD;
Keith N. Humphreys, PhD; Larry C. James, PhD;
Richard J. Klimoski, PhD;
and Annette M. La Greca, PhD.

AWARD FOR DISTINGUISHED PROFESSIONAL CONTRIBUTIONS TO INDEPENDENT OR INSTITUTIONAL PRACTICE IN THE PRIVATE SECTOR

This award recognizes outstanding service delivery by a licensed psychologist who is primarily engaged in the practice of psychology in a private sector setting. The award is intended to recognize outstanding practitioners in psychology. Nominations are considered for psychologists working in any area of clinical specialization, health services provision, or consulting, and services provided to any patient population or professional clientele in an independent or institutional practice setting are considered. Contributions can be judged distinguished by virtue of peer recognition, advancement of the public's recognition of psychology as a profession, relevant professional association honors, or other meritorious accomplishments denoting excellence as a practitioner, including advancement of the profession. In previous years, this award was called the Award for Distinguished Contributions to Applied Psychology as a Professional Practice. The name was changed in 2003 to better describe this award.

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|----------------------------|-----------------------------|
| 1972 Carl R. Rogers | 1989 Patrick H. DeLeon |
| 1973 David Wechsler | Florence W. Kaslow |
| 1974 Nobel H. Kelley | 1990 George Stricker |
| 1975 George W. Albee | 1991 Stanley R. Graham |
| 1976 John C. Flanagan | 1992 Herbert Freudenberger |
| David Shakow | 1993 Charles D. Spielberger |
| 1977 George Katona | 1994 Robert D. Weitz |
| 1978 Arthur L. Benton | 1995 Patricia M. Bricklin |
| 1979 Herbert Dörken | 1996 Christine A. Courtois |
| 1980 Zygmunt A. Piotrowski | Robert J. Resnick |
| Douglas W. Bray | 1997 Jack G. Wiggins Jr. |
| 1981 Jack I. Bardon | 1998/ |
| 1982 Milton Theaman | 1999 Dorothy W. Cantor |
| 1983 Donald R. Peterson | 2000 Mathilda B. Canter |
| 1984 Nicholas A. Cummings | 2001 Reuben J. Silver |
| 1985 Rogers Wright | 2002 William R. Safarjan |
| 1986 Wilbert E. Fordyce | 2003 Philip G. Levendusky |
| 1987 Carl Zimet | 2004 Miki Paul |
| Alfred Wellner | 2005 Edward A. Wise |
| 1988 Stanley Moldawsky | |
| George D. Goldman | |



Photo by Greg Campbell

Edward A. Wise

Award for Distinguished Professional Contributions to Independent or Institutional Practice in the Private Sector

Citation

“For his passionate example as a true scientist practitioner. As a practitioner, Edward A. Wise has developed, refined, and integrated assessment and treatment strategies in multiple settings for over 20 years. Among other accomplishments, he has developed an innovative and cost-effective outpatient intensive treatment program. As a scientist, he has published numerous peer-reviewed articles without the incentives provided by a traditional academic career. As an advocate, he has advanced public acceptance of psychology. As a mentor, he has guided many fledgling psychologists. As a humanitarian, he has served the indigent and incarcerated. As a friend, he has enhanced the lives of those who know him.”

Effectiveness of Intensive Outpatient Programming in Private Practice: Integrating Practice, Outcomes, and Business

Edward A. Wise
Mental Health Resources

The development of a model for treating acutely depressed patients on a frequent basis in an independent practice setting is described. Strategies to collaborate with managed care organizations, employee assistance programs, and local provider networks to recruit these patients are outlined. The patients treated in the intensive outpatient program described in this article were primarily depressed, were more acutely distressed than national and local inpatient samples, were often in suicidal crises, and had multiple comorbidities. Nonetheless, they demonstrated significant pre- and posttest improvements on a variety of client- and clinician-rated measures. A dose-response curve further illustrated that significant improvement in depressive symptoms was predictable. Private practitioners can expand their services through the development, implementation, delivery, management, and evaluation of mental health services that respond to market dynamics.

Over the past decade, authors such as Cummings, Pallak, and Cummings (1996) predicted the extinction of solo practitioners in response to the advent of managed care, while envisioning new opportunities for practice growth. Similarly, Budman and Steenbarger (1997) called for collaboration among various group practice structures to promote their coexistence with managed care. O'Donohue and Fisher (1999) recognized the movement of some clinicians away from providing services and toward managing various types of mental health organizations. The development of Mental Health Resources' group practice, treatment methods, and outcome focus, as described herein, represents a mixture of these practice adaptations.

At approximately the same time that these authors were calling on psychologists to adapt to managed care organizations (MCOs), other psychologists protested the effects of MCOs (Phelps, Eisman, & Kohout, 1998), and the vast majority of psychologists continued to participate in MCOs in a manner strikingly similar to their pre-managed-care patterns of participation (Murphy, DeBernardo, & Shoemaker, 1998). However, even when practitioners are willing to work with managed care in innovative ways, numerous barriers exist to doing so. For example, the local mental health environment in which the practice strategies outlined in this article were developed was dominated by five hospitals serving a population of approximately 1 million people. Two of these hospitals were the largest private, nonprofit medical-surgical hospitals in the country, two were owned by two of the largest national hospital chains, and one was locally owned. All of these hospitals provided complete continuums of psychiatric care, including intensive outpatient programs (IOPs). Independent

practitioners were increasingly marginalized as all of these hospitals abandoned services provided by independent psychologists, instead hiring master's-level-trained therapists and opening their own outpatient clinics. At the time MCOs were trying to rein in hospital expenses, hospitals were organizing levels and continuums of care, and these large systems were controlling patient volume.

Subsequently, in the mid 1990s, my colleagues and I reorganized Mental Health Resources, which formerly consisted only of psychologists and social workers, to include psychiatrists and counselors. In addition, the practice was repositioned to demonstrate a "managed-care-friendly" atmosphere sensitive to clinical and business needs. This reorganization necessitated significant changes in practice as usual. After various MCO provider representatives were interviewed, it became clear that there was a need for outpatient crisis stabilization services. In this market, in which hospital systems had significant control over the movement of inpatients to outpatient services and in which there was increased collaboration between MCOs and hospital systems, independent providers experienced restricted access to patients. In response to these market forces, I (Wise, 1999) developed an IOP for mental health patients in an independent practice setting. In an attempt to reduce initial financial and political risk, an effort was made to partner with a local hospital to deliver these services. This offer was declined.

State licensure is required to operate an IOP. Such licensure is also required for a facility to become credentialed in MCO networks. There are a host of regulatory issues involved in such licensure, including the need for a program manual, a policy and procedures manual, and other such documents that must detail how each state regulation or requirement is being met. These regulations are typically available online from the state department of health and require administrative attention to detail as well as a tolerance for external intrusions. In meeting licensure requirements, it is often helpful to seek guidance from others who have experience navigating similar terrain. In fact, at Mental Health Resources, we retained the services of several experienced program consultants to guide us through the initial regulatory and administrative phases of this project.

The IOP at Mental Health Resources offers urgent/emergent appointments on a daily basis and provides three hours of group treatment per day for three to five days per week. The IOP is run by two psychologists, a master's-level therapist, and two part-time consulting psychiatrists. The IOP has three core components that target affect, cognition, and psychophysiological symptoms. In our traditional group therapy, resistance to affect or change is confronted, and interpersonal as well as family-of-origin issues are identified. Repetitive relationship themes that adversely affect current functioning are addressed. The cognitive aspect of the program primarily consists of teaching problem-solving skills that are based on the principles of cognitive-behavioral therapy. The psychophysiological aspects of the program are concerned with physiological symptoms that may exacerbate psychological symptoms or be misinter-

preted by the client. Relaxation exercises, skills for coping with chronic illness, and pain management are some of the typical areas addressed (see Wise, 2003b, for a detailed program description).

In light of the local dominance of hospital-based mental health care, the initial marketing strategy was directed to national behavioral health carve-outs in order to position Mental Health Resources as a non-hospital-based alternative IOP. Securing national contracts from the largest behavioral MCOs serving the market circumvented the dominance of the local hospital systems providing behavioral health services. The IOP provided an opportunity to align with the market demands of the MCOs for a lower and less costly level of care. The IOP allowed acute patients to be treated in an outpatient setting and also provided clinicians the opportunity to work intensively with patients on a daily basis for an extended period of time. Building relationships with MCOs was accomplished by conducting face-to-face interviews with key players, such as medical directors, network managers, provider relations groups, and facility contracting specialists, as well as ongoing follow-up via telephone, e-mail, and site visits. Accommodations to MCOs by the practice included providing daily urgent appointments, on-site psychiatric management, and state licensure as a mental health facility. Finally, outcome and satisfaction data regarding the treatment effectiveness of the IOP were presented and circulated to all of our MCO contacts (e.g., Wise, 1999, 2000).

As treatment effectiveness with the IOP was repeatedly demonstrated in an independent practice setting (Wise, 2003a, 2003c) and as relationships with MCOs were strengthened, the IOP was transformed into a hospital diversion program. The IOP moved from being at the lowest level on the facility continuum of care, just above traditional therapy and medication management, to the first line of defense against hospitalization. After Mental Health Resources developed national contracts and established ongoing outcome and satisfaction studies, the local psychiatric inpatient market experienced some consolidation, and the political landscape changed in a way that allowed access to previously blocked panels. Subsequently, Mental Health Resources has enjoyed significant support from local referral sources.

The development of local referral sources focused on employee assistance programs (EAPs) and local mental health independent practice practitioners. As with the MCOs, EAP directors and staff were visited, programming materials were presented, and outcome and satisfaction studies served to reinforce our presence and effectiveness. In addition, to facilitate our relationships with providers in the community, we made an effort to routinely send each treatment provider (e.g., primary care physician, psychiatrist, EAP counselor, therapist) involved in the care of a new referral a letter or fax regarding their patient that in-

cluded a signed release of information, relevant clinical information, a plan of care, and a request for the provider's input. Similarly, the same providers received a discharge summary reviewing each patient's treatment, recommendations, and aftercare plans. Some providers preferred weekly updates, whereas others required nothing further until discharge. Every effort was made to keep the original treating professionals (e.g., psychiatrists, therapists, primary care physicians, EAP counselors) involved with their clients during treatment and after discharge. For example, if a patient was already being seen by a psychiatrist or therapist, every effort was made to honor that treatment relationship and to support the patient's involvement in that relationship during and after involvement with our IOP. Whether the patient was treated by an external psychiatrist or one on our staff, psychiatrists were routinely informed of medication issues and of the patient's response to the various treatment modalities.

Review of Previous Research

In a survey of IOPs, Scheifler, Kiser, and Knight (2001) demonstrated that the majority of them operated within hospital or community mental health settings, primarily served substance-abuse and persistently mentally ill populations, and were primarily reimbursed by MCOs, Medicare, and Medicaid. Although there is some literature evaluating the effectiveness of IOPs with psychiatric patients (e.g., Raskin, Novacek, Bahlinger, & Firth, 1996), the majority of these studies have focused on substance-abuse populations treated in community mental health settings, where such innovations have traditionally been more easily accepted (e.g., Gottheil, 1997) and less reliant on private insurance for reimbursement. Four outcome and satisfaction studies reporting on Mental Health Resources' IOP in an independent practice setting have been published in edited books and peer-reviewed journals (Wise, 1999, 2000, 2003a, 2003c). The samples in these studies were combined in the most recent publication, for a grand *N* of 225 (Wise, 2003c). The results from that study essentially mirror the previous results, so with the exception of some follow-up data, only the most recent study is summarized here. It should be noted, however, that the methodology has evolved from simple pretest-posttest designs to include reliable change indices (RCIs), clinical significance (CS) statistics (Jacobson & Truax, 1991), and effect size statistics.

The data consistently show that Mental Health Resources' IOP patients (a) are significantly more severely distressed on all Symptom Checklist-90—Revised (SCL-90-R; Derogatis, 1994) scales than are either local or national samples of inpatients and (b) demonstrate significant improvements on all symptom and global distress SCL-90-R scales while being treated at home. Sixteen sets of analyses were performed, with the requirement that each

outcome measure yield both RCI and CS change in order to classify an individual as improved. The main findings were that the most stringent measures classified 56% of the sample as improved and the most lenient measures classified 88% of the IOP patients as improved. The remaining improvement rates were scattered within this range. (The reader is referred to Wise, 2003c, for more detailed analyses of these patient classifications.) To further define this range of improvement rates, effect size statistics were calculated. The pretest–posttest correlated design effect size for Mental Health Resources' IOP was found to be 1.02, which is considered a large effect. In fact, this statistic means that the average IOP patient would have a better outcome than 84% of untreated individuals and that approximately 72% of IOP patients would be predicted to improve. The finding that 72% of those treated would be expected to have successful outcomes represented approximately the midpoint of the range of improvement rates obtained from the multiple outcome measures reported above (56%–88%). Finally, an earlier report (Wise, 2003a) that surveyed the first 100 IOP participants an average of 16.5 months postdischarge, found that 69% reported continued symptom improvement, 77% continued to receive some type of mental health care, 4% had attended a partial hospital program or IOP, and none required posttreatment hospitalizations. Eighty-nine percent indicated that if the need arose, they would return to our IOP for treatment. In light of the facts that 32% of that sample already had at least one prior hospital admission but that only 4% were sent to any higher level of care from the IOP (the remaining 96% being discharged to a lower level of care), these data suggest that at Mental Health Resources we are also breaking the cycle of repeated hospitalizations.

Method

The current study consists of an additional 100 outpatients. This study represents another attempt to replicate previous results using pre–post SCL-90–R scores, RCI and CS statistical procedures (Jacobson & Truax, 1991), client and clinician functional ratings, and client satisfaction measures. It was previously demonstrated (Wise, 2003c) that CS variables may include symptom reduction, client satisfaction, level of functional improvement, and discharge status. When norms are not available, Jacobson and Truax (1991) proposed measuring CS in 2-*SD* units. In two previous studies (Wise, 2003c, 2004), it was demonstrated that various *SD* units could be used to assess CS along a continuum. Similarly, Tingey, Lambert, Burlingame, and Hansen (1996) developed normative continuum cut-off scores based on the following formula: $(SD_1)(M_2) + (SD_2)(M_1) / SD_1 + SD_2$. They further required that adjacent samples be distinct as demonstrated by the use of *t* and *d* tests. The Tingey et al. (1996) SCL-90–R normative continuum was expanded on (Wise, 2003c) by adding IOP data, which

represented a greater level of severity on more acutely distressed patients. The cutoff scores previously reported (Wise, 2003c) were used in the present study to define CS with the SCL-90–R Depression scale.

In my previous studies, clinician-rated Global Assessment of Functioning (GAF) scores were assigned at pre- and posttreatment and consistently demonstrated significant treatment improvements (Wise, 1999, 2000, 2003a, 2003c). However, because functional capacities are typically not restored until the last phase of treatment (Howard, Lueger, Maling, & Martinovich, 1993), and in an attempt to assess the validity of these clinician ratings, it was important to further assess functional capacities. As noted previously (Wise, 2004), however, there are no stand-alone functional measures that are economical and relevant to depressed patients that also meet Duncan and Miller's (2000) criteria of being simple, easy to score, and producing immediate results. Consequently, an eight-item, 5-point rating scale was developed, similar in format to the SCL-90–R, on which clients could rate their functional status. Hence, to supplement the clinician-rated pre- and posttreatment GAF scores, clients also rated "the extent to which your problems interfere with, or are a source of discomfort or concern to you" in eight specific functional domains of their lives (job, family, social, etc.).

In addition to adding pre–post client-rated functional scores in various domains of life, this study also used a hierarchical linear model to demonstrate the expected trajectory of change as a result of IOP treatment. Because hierarchical linear modeling requires at least three measures during the course of treatment (Singer & Willett, 2003), it was necessary to build measures into clinical programming in a convenient way that allowed repeated measures that were valid and reliable.

As part of the weekly treatment planning process, clients were given a symptom rating section on their treatment plan that was composed of selected symptoms of depression and anxiety. Although the anxiety and depressive symptoms measured were those used on the Brief Symptom Inventory (BSI) Depression and Anxiety scales (Derogatis, 2001), their format was altered to fit into the treatment plan, and other items of clinical interest were added. Because the context and format of the items were altered, reliability coefficients were calculated between the pretreatment BSI Depression scale items extracted from the initial SCL-90–R and the pretreatment adapted BSI Depression ratings, both of which were given prior to the initial intake. The SCL-90–R was given to the patient with an initial registration packet, and the adapted BSI Depression rating scales were given in a separate packet of self-rating clinical measures, also prior to intake. The normative test–retest correlation for the BSI Depression scale in a sample of nonpatients ($N = 60$) was .84 (Derogatis, 2001). The correlation between the adapted BSI Depression rating

scale and the BSI Depression scale extracted from the SCL-90-R in our pretreatment IOP sample was .79 ($N = 50$). A z test on the Fisher-transformed r values showed no significant difference between the adapted and extracted BSI Depression scales ($z = .75$). A posttreatment IOP sample ($N = 30$; not included in the current study) also completed both versions of the scales. In that sample, as much as one week had elapsed since the patient completed the last treatment-plan-adapted BSI depression ratings and the final extracted BSI Depression scale. The correlation between the adapted BSI Depression scale and the extracted BSI Depression scale at posttreatment was .76. A z test on the Fisher-transformed values again showed no significant difference between the BSI test-retest correlation and the correlation between the extracted BSI Depression scale and the adapted BSI Depression scale administered posttreatment ($z = .96$). Consequently, the adapted form of the BSI Depression rating scale was judged to be a valid and reliable alternate form of the extracted BSI Depression scale and was used for treatment planning purposes and in the hierarchical linear model.

The mean age of the sample ($N = 100$) was 41 years. Thirty-seven percent of the sample were married, 32% were divorced, 26% were single, 86% were employed, 88% were women, 51% were Caucasian, and 49% were of African American descent. Primary Axis I diagnoses consisted of depressive disorders (82%), anxiety disorders (14%), and substance abuse disorders (3%). Seventy percent of the sample received additional comorbid Axis I diagnoses. These included anxiety disorders (39%), depressive disorders (21%), and substance abuse disorders (18%). These patients were typically in a crisis, and 74% of the total sample, or 90% of those with primary depressive disorders, presented with suicidal ideation at the time of intake. Indeed, 95% of these patients were direct admissions, and only 5% were stepped down from a higher level of care (e.g., inpatient or partial program). Fifty-two percent of the sample was assigned an Axis II disorder, most often a mixed type. Eighty-six percent had comorbid Axis III problems, most frequently including headaches (35%), chronic pain (35%), cardiac disorders (33%), and gastrointestinal disorders (20%). Twenty-five reported a total of 50 previous psychiatric inpatient admission episodes of care among them, resulting in an average number of hospitalizations of 2, with a range from 1 to 6. Fifty-nine percent of the sample had already received at least one trial of psychotropic medications, most often for depression (76%) or anxiety (54%), and at the time of discharge, 77% were receiving some type of psychotropic medication. These individuals were seen for an average of 16 IOP visits ($M = 15.83$; $SD = 5.49$) occurring over an average of 41 days. Three percent of this sample was referred to any higher level of care, and seven patients

were excluded from data analysis and considered dropouts because they were present for less than three visits.

Results

Consistent with previous reports, Figure 1 shows that with one exception, the IOP pretreatment group was significantly more distressed than both the national inpatient SCL-90-R normative group and a sample of 100 local psychiatric inpatients (see Wise, 2000, for details regarding the latter group). Also consistent with previous studies, Figure 2 demonstrates significant symptom and level-of-severity improvements on all of the SCL-90-R scales following treatment (the Positive Symptom Total scale was also significant but is not shown because it is based on a different metric).

Client satisfaction was measured with the widely accepted Client Satisfaction Questionnaire-8 (CSQ; Attkisson & Greenfield, 1994). IOP clients continued to demonstrate high levels of satisfaction, with an average item rating of 3.7 on a scale ranging from 1 to 4. As a whole, the total IOP sample was significantly more satisfied with their care than was the normative CSQ sample, $t(3217) = 5.39$, $p < .0001$.

Table 1 shows that using the 95%, 90%, and 80% confidence levels, 64% to 73% of the IOP sample achieved both reliable and clinically significant reductions in their depressive symptoms, and none deteriorated (see Wise, 2004, for a review of RCI methodologies). Tables 2 and 3 show that at the 80% confidence level, the level of reliable and clinically significant improvement increased up to 82% when discharge to a lower level of care (Table 2) and client satisfaction (Table 3) were the CS variables, with more patients from the indeterminant category being classified as reliably improved.

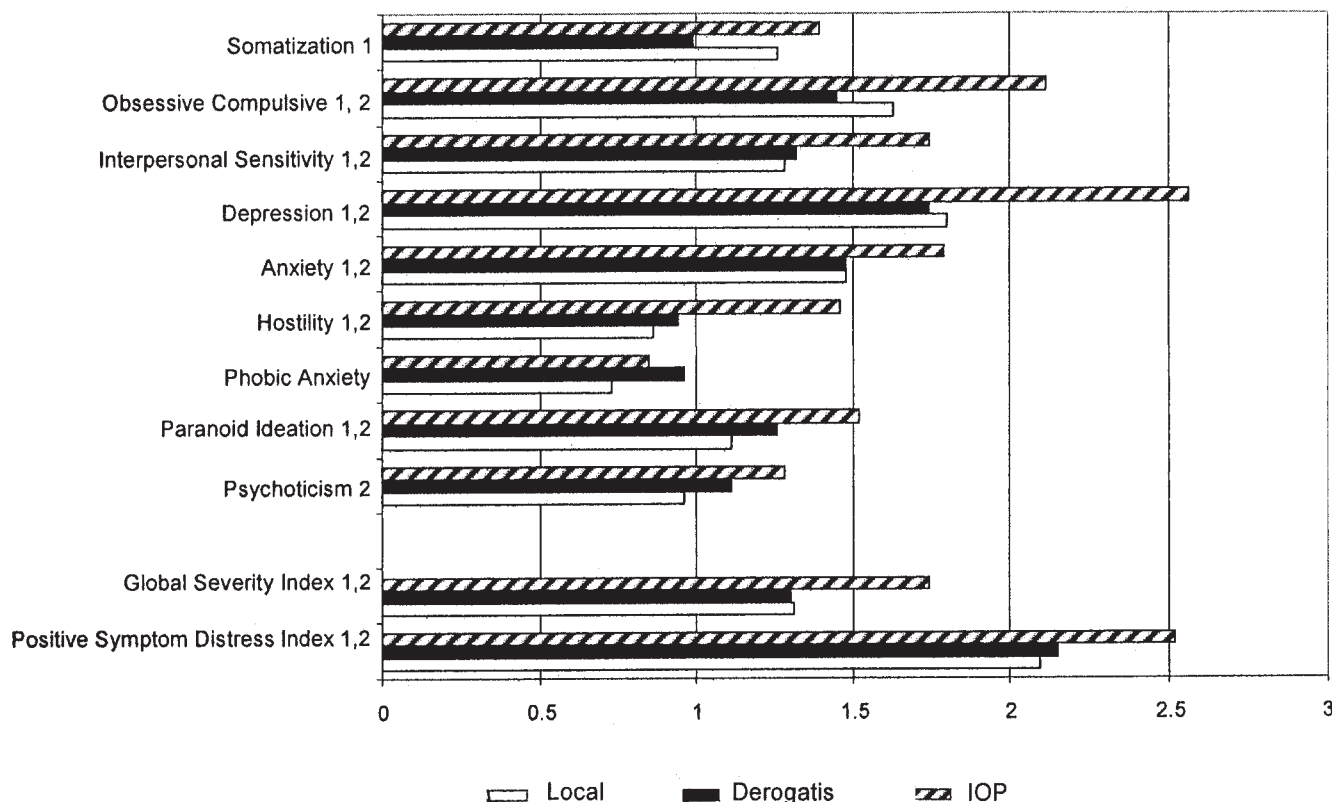
The clinician-rated GAF scores averaged 39 at intake and 60 at discharge, $t(99) = 42.24$, $p < .0001$, consistent with previous reports (Wise, 2003c). Figure 3 shows that clients reported significant reductions on seven of the eight functional domains assessed. Not surprisingly, clients initially reported that their symptoms and problems interfered most with functioning in the areas of work, health, finances, and relationships.

Table 4 shows that when the client functional ratings were averaged into a total functional mean score, 58% to 67% of the IOP sample demonstrated reliable decreases in Depression scale scores accompanied by the graduated return of functional capacities, measured in SD increments. These client ratings of functional capacities further support and clarify the clinician-rated GAF improvements as a result of IOP treatment and are consistent with the phase model of psychotherapy (Howard et al., 1993).

In an effort to correct the alpha level for the relatively large number of statistical tests conducted, the Holm post hoc statistic was applied to all significant pre- and post-

Figure 1

Mean Symptom Checklist-90–Revised (SCL-90–R) Scores of Mental Health Resources' IOP Clients and Two Inpatient Comparison Groups at Pretreatment



Note. Local = 100 consecutive local psychiatric inpatient admissions; Derogatis = national inpatient SCL-90–R normative group; IOP = intensive outpatient program. 1 = IOP clients significantly different from Derogatis inpatient norms at $p < .05$; 2 = IOP clients significantly different from local inpatient admissions at $p < .05$.

treatment findings to reduce the likelihood of Type I errors (Norman & Streiner, 2000). All of these significant findings surpassed the alpha levels determined by the Holm post hoc correction.

Another method used to evaluate psychotherapy outcomes is hierarchical linear modeling. Eighty-six percent of the IOP sample had at least 8 data points, obtained on a weekly basis (range = 3–16) with the parallel form of the BSI Depression scale previously described. Figure 4 shows a significant dose–effect relationship between the adapted BSI Depression scale score and the amount of IOP treatment (Depression scores dropped from 2.56 to 0.28 after 8 weeks). Highest GAF in the previous year, somatization, and age accounted for 26.7% of the variance in predicting treatment response on the Depression score, $F(3, 95) = 11.52, p < .001$; see Table 5.

In order to assess the relative efficacy of this IOP treatment in relation to other forms of interventions, Cohen's d (Cohen, 1988; $M_1 - M_2 / SD_{\text{pooled}}$) for correlated measures on one-group, pre–post designs (Dunlap, Cortina, Vaslow, & Burke, 1996) was calculated using the pre- and post-

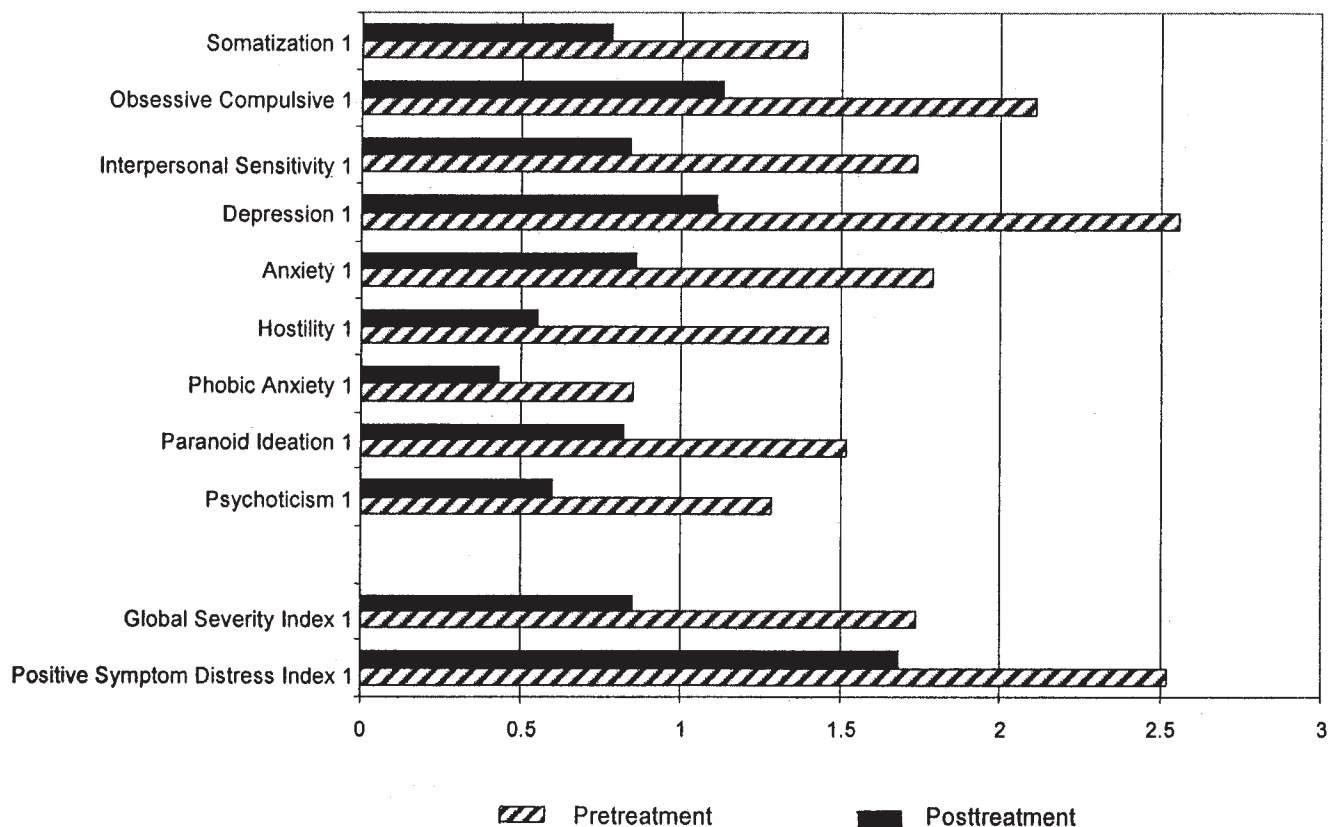
treatment SCL-90–R Depression scale scores ($M_1 = 2.56, SD_1 = 0.84$; $M_2 = 1.11, SD_2 = 0.89$). This resulted in a d of 1.68 for the SCL-90–R Depression scale, further indicating large treatment effects (95% confidence interval = 1.35–1.99). Similarly, the effect size correlation between pre- and posttreatment SCL-90–R Depression scale scores was .64.

Discussion

It has been repeatedly demonstrated that the Mental Health Resources IOP treats patients who are more severely distressed (as measured by the widely accepted, standardized SCL-90–R) than both local and national samples of inpatients. Few data are available on similar patients because the vast majority of these patients would have been excluded from randomized clinical trials as a result of suicidal ideation and concurrent use of psychotropic medications (Stirman, DeRubeis, Crits-Christoph, & Rothman, 2005). Furthermore, this clinically representative sample consistently demonstrates severe depressive symptoms, typified by suicidal ideation, in addition to a high degree of

Figure 2

Mean Pre- and Posttreatment Symptom Checklist-90—Revised Scores of Mental Health Resources' Intensive Outpatient Program Clients



Note. 1 = pretreatment significantly different from posttreatment at $p < .001$.

Axes I, II, and III comorbidities. Such high levels of comorbidity have been demonstrated to result in early termination (Clarkin & Levy, 2004), poor treatment response (Hollon & Beck, 2004; Howard, Moras, Brill, Martinovich, & Lutz, 1996; Kopta, Howard, Lowery, & Beutler, 1994; Moos, 1990; Reich, 2003), unremitting depressive symptoms (Swindle, Cronkite, & Moos, 1998), and chronic depression (Rothschild & Zimmerman, 2002). However, de-

spite the severity and complexity of their diagnoses, these patients were able to be treated in an outpatient independent practice setting with a low dropout rate and a low referral rate to higher levels of care.

In fact, only 3% of our patients were referred to a higher level of care. These patients were either imminently

Table 1
Reliable Change Index (RCI) and Clinical Significance Improvement Rates on the Symptom Checklist-90—Revised Depression Scale

RCI	Improved	Indeterminant	Deteriorated
1.96	64	36	0
1.28	69	31	0
0.84	73	27	0

Note. RCI values correspond to the 95% (1.96), 90% (1.28), and 80% (0.84) confidence levels. Other table values are numbers of patients. $N = 100$.

Table 2
Reliable Change Index (RCI) and Clinical Significance Improvement Rates on the Symptom Checklist-90—Revised Depression Scale and Discharge to Lower Versus Higher Levels of Care

RCI	Lower	Indeterminant	Higher ^a
1.96	67	33	0
1.28	74	26	0
0.84	78	22	0

Note. RCI values correspond to the 95% (1.96), 90% (1.28), and 80% (0.84) confidence levels. Other table values are numbers of patients. $N = 100$.

^a Of the three patients who were referred to a higher level of care, none met any of the RCI criteria.

Table 3

Reliable Change Index (RCI) and Clinical Significance Improvement Rates on Symptom Checklist-90—Revised Depression Scale and Client Satisfaction Questionnaire-8 (CSQ)

RCI	Improved ^a	Indeterminant	Deteriorated
1.96	67	32	0
1.28	75	24	0
0.84	82	17	0

Note. RCI values correspond to the 95% (1.96), 90% (1.28), and 80% (0.84) confidence levels. Other table values are numbers of patients. $N = 99$ owing to missing data.

^a CSQ > 19 (2 SDs below M).

suicidal or decompensating into a psychotic state. Typically, our strategy in working with these patients is to meet with their significant others at the outset of treatment and arrange for them to be with the patients around the clock, making sure they attend treatment, removing weapons, medicines, or drugs, and so forth. Our treatment staff have

Table 4

Reliable Change Index (RCI) and Clinical Significance Improvement Rates on the Symptom Checklist-90—Revised Depression Scale and Functional Improvement in SD Increments

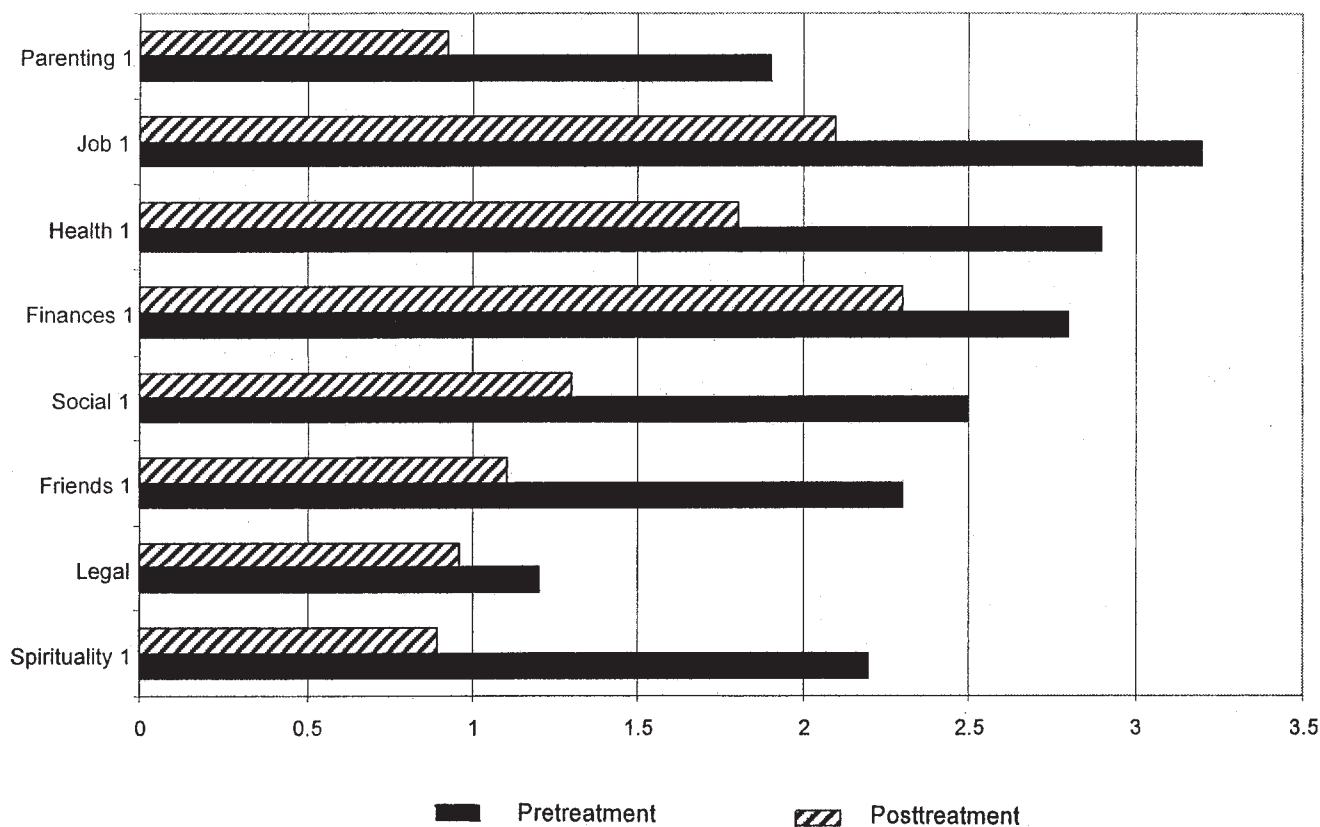
RCI	2 SDs	1 SD	0.5 SD	Total
1.96	31	18	8	57
1.28	34	20	9	63
0.84	34	21	11	66
−0.84				
−1.28				
−1.96		1		1

Note. Positive RCI values correspond to the 95% (1.96), 90% (1.28), and 80% (0.84) confidence levels; negative RCI values refer to confidence levels for various levels of deterioration. Other table values are numbers of patients. $N = 99$.

all worked in psychiatric hospital settings and are experienced in identifying high-risk situations that warrant a higher level of care. Routine suicidal/homicidal risk assessments are part of the client's intake; specific risk and pro-

Figure 3

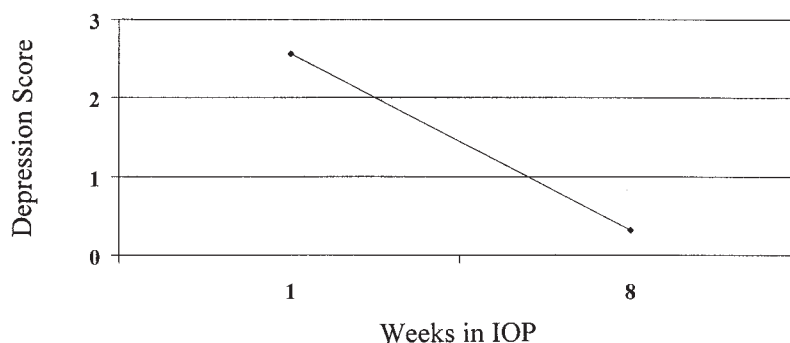
Mental Health Resources' Intensive Outpatient Program Clients' Pre- and Posttreatment Functional Ratings



Note. 1 = pretreatment significantly different from posttreatment at $p < .005$.

Figure 4

Mean Symptom Checklist-90—Revised Depression Scores by Weeks in Intensive Outpatient Program (IOP)



tective factors are identified then, and the plan of care for the next 24 hours is delineated. The patient and the patient's significant others are informed about how to have the patient admitted to the hospital if the patient is not safe or is unable or unwilling to abide by the treatment contract and the specific safety plan.

After an average of 16 visits, occurring over an average of 41 days, these patients demonstrated significant pre-post treatment gains on all symptom and severity scales of the SCL-90-R. From 64% to 82% demonstrated reliable improvements in depressive symptoms and various indicators of CS change. In addition to demonstrating clinician-rated GAF improvements from pre-treatment to posttreatment, patients also reported significant improvements in seven of eight functional domains. Functional impairments improved most in the areas of job, parenting, social, and friends but remained relatively stable for the legal and finances areas. Functioning in the latter two areas is not likely to be altered as a result of IOP. It is interesting that the sample reported significantly improved health and spirituality, which underscores the relationship between the treatment of depression and improved comorbid health problems as well as the restoration of hope. The hierarchical linear model demonstrated a significant and predictable dose-response effect. Client satisfaction was consistently high,

with a mean overall satisfaction rating of 3.7. As in previous studies, the average number of previous psychiatric hospital admissions for the sample was two, but only 3% of patients were referred to any higher level of care. Clearly, these complex, acute patients can be safely treated on an outpatient basis and costly hospitalizations averted.

Interpreting the *d* of 1.68 is complicated by the pretest-posttest correlated design. There are few pre-post meta-analytic studies of group treatment with depressed patients with which to compare the present study. Burlingame, Fuhrman, and Mosier (2003) reviewed 111 studies and provided pre- and posttest effect sizes, reporting an effect size of 1.10 for the group treatment of depression. Earlier results with different patients in the same program resulted in a *d* of 1.02. The IOP treatment effect size of 1.68 in this study is large, and a typical interpretation would indicate that 96% of patients who complete treatment can be expected to improve.

Adapting this practice to managed care objectives has required service innovations, flexibility, alterations in the business plan, persistence, and objectivity. Five different research strategies have been used to market and demonstrate the effectiveness of this IOP with clinically complex patients: (a) pre- and posttreatment client-rated symptoms and functional impairments, as well as clinician-rated functional impairments; (b) individual improvement rates measured by reliable statistical change accompanied by numerous measures of clinical change indicative of movement toward a statistically normal level of functioning; (c) the size of the treatment effects in relation to standardized estimates of effect size; (d) the development of a dose-response curve plotting expected improvement; and (e) replication of results accompanied by increasingly complex and rigorous methodologies published in peer-reviewed journals. Making this practice "managed-care-friendly" has allowed Mental Health Resources to grow creatively, work intensively with patients, engage in research, enhance busi-

Table 5

Predicting Number of Weeks to Improvement in Depressive Symptoms

Predictor variable	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
Constant	390.55	117.28		3.33	< .001
Highest GAF	-6.23	1.67	-0.34	-3.73	< .001
Somatization	0.26	0.09	0.27	2.91	< .005
Age	1.96	0.81	0.22	2.42	< .02

Note. GAF = Global Assessment of Functioning.

ness skills, and deliver affordable, accountable, and effective mental health care. Mental Health Resources hopes to continue to grow through collaborative endeavors in the future.

Author's Note

Correspondence concerning this article should be addressed to Edward A. Wise, Mental Health Resources, 1027 South Yates Road, Memphis, TN 38119. E-mail: eawmhr@midsouth.rr.com

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