

## Models of Psychotherapy Outcome: Are They Applicable in Training Clinics?

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To explore whether psychotherapy models are applicable in the training clinic setting, the dose-effect model of psychotherapy outcome was tested in the outpatient clinic of an American Psychological Association-approved doctoral training program in clinical psychology. Outcome data, using the Outcome Questionnaire 45.2, were gathered immediately prior to each psychotherapy session during the course of treatment (mean total number of sessions: 14.81). Sixty-one clients, treated by 21 trainee clinicians, participated. Although a similar pattern emerged, response to treatment was not as rapid as the dose-effect model would predict. Ideas for future research are proposed.

The dose-effect model of psychotherapy outcome (Howard, Kopta, Krause, & Orlinsky, 1986) emerged from meta-analytic findings spanning 30 years and has spawned renewed interest and research into psychotherapy research. However, those analyses did not examine possible site differences (e.g., whether the site was a training clinic) in the dose-effect response.

Nevertheless, the relationship between training and treatment outcome has been examined in the literature for decades, and numerous studies have suggested that training is not related to outcome (e.g., Elkin, Parloff, Hadley, & Autry, 1985; Strupp & Hadley, 1979). The few indications that training may correlate with outcome were weak findings and difficult to explain (e.g., Hattie, Sharpley, & Rogers, 1984; Huppert et al., 2001; Lambert et al., 2003; Weisz, Weiss, Han, Granger, & Morton, 1995). The established literature therefore suggests that models of psychotherapy outcome should be applicable in the training clinic setting, despite the usage of trainee clinicians.

However, since the seminal article on the dose-effect response, numerous replications

have reported considerable variability in obtained response curves (e.g., Barkham et al., 1996; Kopta, Howard, Lowry, & Beutler, 1994; Lambert, Okiishi, Finch, & Johnson, 1998; Lambert et al., 1996; Lueger, Lutz, & Howard, 2000). It is possible that this variability may, in part, reflect differences in service site and the usage of trainees in the provision of services. A report by Kadera, Lambert, and Andrews (1996) did note a slowed dose-effect response curve in a training environment.

The current study sought to explore the dose-effect response in an American Psychological Association-approved doctoral training program in clinical psychology. Although the findings reported by Kadera et al. (1996) were compelling, it was hypothesized that the dose-effect model would be applicable in the training clinic setting, despite the trainee clinicians being presumably less experienced, commensurate with the majority of the literature.

### Method

#### *Participants*

With approval from the Institutional Review Board at the University of Wisconsin—Milwaukee (UWM), archival data, which included completed outcome questionnaires and chart information from clients seen at the UWM Psychology Clinic between the fall semester of 1998 and the conclusion of the 2001 fall semester, were used for analyses. Only data from discharged clients who had attended two or

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more sessions of psychotherapy and completed the study measure at the first session of psychotherapy were included in the data set ( $N = 61$ ).

The mean client age was 29.6 ( $SD = 9.38$ ), with a range of 18 to 55 years of age. Fifty-two percent of clients were female, 69% were single, and more than 95% were Caucasian. The most common diagnoses were anxiety disorders ( $n = 19$ , 31%), mood disorders ( $n = 14$ , 23%), personality disorders ( $n = 14$ , 23%), and adjustment disorders ( $n = 7$ , 12%). A minority of clients were diagnosed with substance-related disorder ( $n = 2$ , 3%), impulse-control disorder ( $n = 2$ , 3%), schizophrenia or other psychotic disorder ( $n = 1$ , 2%), or sexual-gender disorder ( $n = 1$ , 2%). No diagnostic information was available on the remaining client ( $n = 1$ ).

### Measures

Consistent with recent studies involving the dose-effect model (e.g., Kadera et al., 1996), the outcome measurement used in this study was the 45-item, self-report Outcome Questionnaire 45.2 (OQ45.2; Lambert et al., 1996, 1998). The OQ45.2 is intended to measure progress in three domains: subjective distress, interpersonal functioning, and social role performance. Clients respond to the items on a continuum ranging from *never* to *almost always* as to how they were feeling or functioning in the preceding week. Total scores can range in value from 0 to 180, with a score of 63 or higher falling in the clinical range.

The OQ45.2 administration manual reports that no differences exist between male and female samples. Test-retest and internal consistency reliability studies as well as concurrent validity studies have yielded robust findings. Nebeker, Lambert, and Huefner (1995) examined ethnic differences and also found no significant differences on domain or total scores. Vermeersch, Lambert, and Burlingame (2000) examined specificity and sensitivity to change and found the OQ45.2 to perform adequately.

### Procedure

Each client was asked to complete the OQ45.2 prior to each psychotherapy session. Measures were not completed in the presence of

the therapist, and confidentiality was maintained on all data.

## Results

Sixty-one adult Psychology Clinic clients receiving psychotherapy services from 21 student clinicians in, at minimum, the third year of doctoral training in a clinical psychology program participated in the study. The mean number of psychotherapy sessions per client was 14.81 ( $SD = 13.18$ ), with a median of 11.5 and a mode of 2 sessions.

Client scores on the OQ45.2 were comparable to the normative data reported for clinical populations. For the OQ45.2, the symptom-distress scale mean was 43.48 ( $SD = 14.63$ ), the interpersonal functioning mean was 18.54 ( $SD = 7.23$ ), the social role performance mean was 13.76 ( $SD = 5.23$ ), and the total score mean was 75.78 ( $SD = 24.32$ ). Each mean falls within the clinical range.

The reliable change index reported by the OQ45.2 developers (change of 14 points or more) in conjunction with the normal range cutoff score (total score of below 63) were used to categorize clients into one of four categories for each session of psychotherapy in their course of treatment:

**Recovered:** The client's score had reliably changed from Session 1 and had moved from the clinical range into the normal range ( $n = 11$ ; 18%).

**Reliably improved:** There were two reasons for reliable improvement without recovery. Some clients in the clinical range showed reliable improvement but not enough to move into the normal range ( $n = 5$ ; 15%). The remaining reliably improved clients were in the normal range at the first session ( $n = 4$ ).

**No change:** No reliable change in score from Session 1 was observed ( $n = 33$ ; 54%).

**Deteriorated:** The client's score was reliably worse than at the first session ( $n = 8$ ; 13%).

Consistent with Howard, Kopta, Krause, and Orlinsky's (1986) approach, the recovered and

reliably improved groups were combined into a single group, considered successful outcome, and the percentage of clients in that group terminating at each session was plotted to yield a dose-effect curve. The resultant curve is presented in Figure 1. Within eight sessions of psychotherapy, 8% of clients were categorized as successful outcome. Within 26 sessions, 31% were considered successful, and 38% achieved this status within 52 sessions.

*Secondary Analyses*

In contrast to the findings of Howard, Kopta, Krause, and Orlinsky (1986), no relationship between diagnosis and improvement rate was observed in the training clinic. Clients seen by one therapist whose clients all reliably improved or achieved recovered status (accounting for 20% of all clients that improved or recovered) were compared with clients of a therapist whose clients were, with only one exception, categorized as having deteriorated or having no reliable change. *T* tests produced no significant differences between clients seen by the two therapists for the following variables: age, educational level, occupational level, number of problems reported at intake, OQ45.2 total score, or total number of psychotherapy sessions provided in the course of treatment.

Discussion

In the present study, the lagging response curve does not appear to be exclusively related to the training clinic setting. The seminal dose-effect model article by Howard et al. (1986) reported that the measures used to monitor outcomes were administered following each session, whereas in the training clinic, the OQ45.2 was completed prior to each session. Nevertheless, most other studies of the dose-effect model also administer outcome ratings prior to the psychotherapy session and report a more accelerated dose-effect response, even when using the same outcome measure, than observed in this clinic (e.g., Lambert et al., 1996, 1998). It is possible, though, that an interaction between time of measurement and setting of services exists.

Another possible explanation for the lagging curve is that perhaps the clients served by the training clinic were simply more challenging, or conversely less challenging, than those clients seen elsewhere. The normative data for the OQ45.2 do not support either position (Lambert et al., 1996).

As a group, clients seen in the training clinic may have differed from other settings in social class. The training clinic clients, although relatively well educated, typically had low occupa-

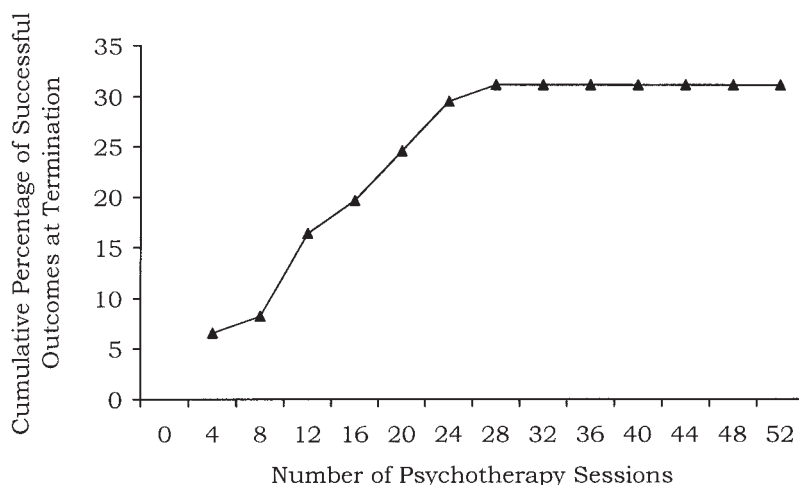


Figure 1. The obtained dose-effect response curve in the training clinic at the University of Wisconsin—Milwaukee.

tional status. Some studies have found a correlation between occupational status and length of treatment (e.g., DuBrin & Zastowny, 1988). However, other studies have not noted differences in length of treatment as a function of occupational status (e.g., Beck et al., 1987; Sledge, Moras, Hartley, & Levine, 1990).

The findings from this study indicate that clients who did not recover or reliably improve remained in therapy for longer than the dose-effect model would suggest was necessary for many to experience change. Of those clients who reliably improved or recovered in psychotherapy, 80% had remained in psychotherapy for at least five sessions. Seventy-one percent of those who did not reliably improve, or actually deteriorated, remained in treatment for more than five sessions, suggesting that outcome differences are not adequately explained by inadequate exposure to treatment of the unsuccessful courses of psychotherapy.

Some comparisons between those findings reported by Kadera et al. (1996) and the present study are worth making. Kadera, Lambert, and Andrews's client sample size ( $N = 45$ ) is similar to that of the UWM Psychology Clinic ( $N = 61$ ). Using the OQ45.2 total score, Kadera, Lambert, and Andrews reported that 2% of clients met criteria for recovered at Session 2 (UWM = 2%), 18% were recovered within 7 sessions (UWM = 3%), and 46% were recovered within 26 sessions (UWM = 16%).

If good therapists are, in fact, born and not made, perhaps Kadera et al. (1996) happened to include more "born therapists" as student clinicians. Within the present investigation, the analyses examining outcome differences between two student clinicians do modestly suggest that even when receiving training from the same program, some clinicians may produce better client outcomes than others.

Several limitations are inherent in this investigation; however, these limitations are shared by the established literature on psychotherapy outcomes. Such limitations include the following: (a) Only a primary diagnosis was recorded for each client, (b) the role of psychotropic medications was not examined, (c) the role of formal treatment plans in the provision of services was not examined, and (d) the role of the negotiated fee for services is not known.

Although major meta-analytic studies in the past have indicated that level of therapist training and experience is not related to client outcomes (e.g., Berman & Norton, 1985), further research into the possible relationships among outcome, therapist training and experience, and service site is encouraged. Training programs, or doctoral student characteristics, may have changed substantially in the past decade since the meta-analyses of the role of training and experience were done.

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