ORIGINAL ARTICLE

Clinical outcomes of psychotherapy dropouts: does dropping out of psychotherapy necessarily mean failure?

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Objective: A large proportion of psychotherapy patients remain untreated, mostly because they drop out. This study compares the short- and long-term outcomes of patients who dropped out of psychotherapy to those of therapy completers.
Methods: The sample included 63 patients (23 dropouts and 40 completers) from a controlled clinical trial, which compared narrative therapy vs. cognitive-behavioral therapy for major depressive disorder. Patients were assessed at the eighth session, post-treatment, and at 31-month follow-up.
Results: Dropouts improved less than completers by the last session attended, but continued to improve significantly more than completers during the follow-up period. Some dropout patients improved with a small dose of therapy (17% achieved a clinically significant change before abandoning treatment), while others only achieved clinically significant change after a longer period (62% at 31-month follow-up).
Conclusion: These results emphasize the importance of dealing effectively with patients at risk of dropping out of therapy.Patients who dropped out also reported improvement of depressive symptoms without therapy, but took much longer to improve than did patients who completed therapy. This might be attributable to natural remission of depression. Further research should use a larger patient database, ideally gathered by meta-analysis.

Keywords: Patient dropout; psychotherapy; outcome assessment; unipolar depression

Introduction

A large proportion of psychotherapy patients remain untreated, and dropout is indicated as a major cause, with average rates of 19.7% across many of the major psychotherapeutic approaches and settings.[1] Treatment discontinuation is costly to society,[2] to families, and to employers.[3] In clinical research, dropout rates are considered an important measure of treatment efficacy and efficiency,[4] and are a standard measure in psychotherapy outcome reports.[5] This attitude seems to assume implicitly that dropping out is associated with treatment failure.

However, some research has shown that dropping out of psychotherapy is not necessarily associated with treatment failure. For instance, 38% of patients from a randomized clinical trial of psychotherapy for mild depression were found to have recovered from depressive symptoms by session two.[6] In a naturalistic study using data from a large number of psychotherapy patients (n=4,761),[7] only four sessions were needed for 25% of the sample to improve. In another study, the trajectories of change of 10,854 patients with diverse diagnoses, treated in different settings by more than 513 therapists, were typified.[8] It was found that 75.3% of patients improved rapidly up to the fifth session. Furthermore, some research shows that improvements in symptoms and self-esteem are associated with dropping out of psychotherapy,[9,10] which may suggest that some patients terminate because they feel better. This phenomenon is often referred to as the "good enough level" effect.[11] Still, specific investigations into patterns of change in patients who drop out of psychotherapy are scarce.

A recent controlled clinical trial for major depressive disorder (MDD) found that completers of both narrative therapy (NT) and cognitive-behavioral therapy (CBT) experienced significant reductions in depressive symptoms (i.e., significantly more than the natural history of depression).[12] When dropouts were included in the analysis, CBT outcomes were significantly better, which led to the question of whether there was significant variance in the performance of the dropout sample. Although other studies have been conducted with this same sample,[13-15] none addressed the differential short- and long-term clinical outcomes of dropouts compared with treatment completers. Thus, the aim of the present paper is to compare the short- and long-term clinical outcomes of patients who dropped out from psychotherapy to those of patients who completed psychotherapy. Our focus is to understand comparative clinical outcomes regardless of which form of psychotherapy dropouts had received.

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Methods

The procedure of the comparative trial is described in detail in previous reports of the post-treatment[12] and follow-up results.[13] A brief description of the study design is given below.

Participants

The original controlled clinical trial from which these data were extracted[12] followed all relevant ethical guidelines for human subjects research. All clients and therapists provided written informed consent, and the study protocol was approved by the ethics committee of the university where the research was carried out.

Of 107 screened patients, 81 were selected to participate in this study and receive treatment. Of these, 16 either refused to participate or did not return after the initial assessment. One client in each treatment condition was excluded for comorbid Axis-II disorders. The sample thus included 63 patients (23 dropouts and 40 completers, mostly female, with a mean age of 35.44 years, standard deviation [SD] = 11.51) diagnosed with moderate MDD (according to the DSM-IV criteria),[16] who were assigned quasi-randomly to either NT (n=34) or CBT (n=29).[12] Ten therapists, all psychologists with different levels of experience (mean[years of experience] = 1.9, SD = 2.13), treated the patients individually (mean[patients per therapist] = 6.3, SD = 7.8) in a nested design (i.e., they only treated patients in one treatment manual, the one they felt most comfortable with). The mean number of dropouts per therapist was 2.3 (SD = 3.9).

Dropout was rated by the therapists and defined as unilateral termination by the client without the therapist's approval or knowledge,[17] and was considered only for patients who were actually enrolled in the treatment. Definition of dropout by the therapist has been shown to be the most accurate definition.[1,17] The dropout and completion groups had equivalent general characteristics (age, gender, level of education, socioeconomic status, marital status, and employment status), clinical characteristics at intake (Global Assessment of Functioning [GAF], comorbid anxiety, medication use, previous hospitalization, previous suicide attempt, previous psychotherapy, and pretreatment scores on the Beck Depression Inventory-II [BDI-II] and the Outcome Questionnaire Interpersonal Relations [OQ-45.2] and its subscales), similar scores on perceived therapeutic alliance, and were treated by therapists with similar clinical experience. Dropouts and completers only differed significantly on two variables: the dropout group had significantly more patients who were taking psychiatric medications and a higher prevalence of comorbid anxiety.[15] The mean number of treatment sessions for the dropout group was 6.4 (SD = 4.4),[15] which was significantly lower than in the completers group (mean = 18.15 sessions, SD = 3.23). All participants were contacted 31 months after termination of treatment (regardless of whether termination was by completing treatment or dropping out), and 67% of the patients who began treatment (i.e., 13 dropouts and 29 completers) returned the assessment forms.

The reasons for attrition at 31-month follow-up were failure to reply (n=5) or change of address and/or phone number (n=4). As shown in the prior follow-up report,[13] the retained sample (n=42) is representative of the original treatment sample (n=63), i.e., it is not biased by low or differential returns according to treatment modality (NT or CBT), treatment completion (dropouts or completers), treatment response (achieved clinically significant change or not), or pretreatment differences. There was no attempt to control for continuation treatment.

Treatment conditions

Both the CBT[18] and NT[19] treatment manuals included a total of 20 sessions. CBT is the most established psychological treatment for depression to date. It consists of a structured, present-oriented, and problem-focused psychotherapy based on the identification and reframing of negative and dysfunctional thoughts and behaviors.[18,20] NT is a psychotherapeutic approach based on the notion that people construct narratives in order to define themselves and give meaning to their life experiences. The purpose of psychotherapy is to help clients shape new identities and construct stories in a richer and more diverse way.[19,21] Adherence to the manual and therapist competence were ensured through weekly supervision and assessed from the perspective of external judges using video recordings of sessions and a rating scale developed for this purpose, which showed good results for both treatment groups.[12]

Measures

Beck Depression Inventory-II (BDI-II)

The BDI-II[22,23] was the primary outcome measure and was used to assess the severity of depressive symptoms. This scale has shown high internal consistency ($\alpha = 0.89$ in the present intention-to-treat sample and $\alpha = 0.91$[24]). It has been translated to and validated for Portuguese populations.[23,25] Because the Portuguese studies did not calculate the reliable change index (RCI),[26] normative data gathered from a meta-analysis of diverse samples[27] were used to calculate the proportion of clinical change (RCI = 8.46; normative cutoff score = 14.29).

Outcome Questionnaire Interpersonal Relations subscale

The OQ-45.2 IR[28,29] is an 11-item subscale of the self-report Outcome Questionnaire, which aims to assess interpersonal complaints (e.g., loneliness, conflicts with others, family and marriage problems and sexual concerns). Lambert et al.[30] found good internal consistency ($\alpha = 0.74$) and test-retest reliability (r = 0.80). Umphress et al.[31] reported good concurrent validity for the OQ-45.2 IR subscale. High correlations were found between the OQ-45.2 IR and the Inventory of Interpersonal Problems (IIP),[32,33] a widely used measure of interpersonal functioning.

Results

Raw means, standard deviations, and effect sizes for the time points used in the analyses (i.e., session one, session eight, last session attended, and the 31-month follow-up assessment) are provided in Table 1.

A two-by-two (time: first and last session attended × status: dropouts or completers) mixed ANOVA showed a significant effect of time for both the BDI-II ($F_{1,61}$ = 42.990, p = 0.0001) and OQ-45.2 IR ($F_{1,61}$ = 8.010, p = 0.006). Significant time × status interactions were also found for both the BDI-II ($F_{1,61}$ = 8.404, p = 0.005) and OQ-45.2 IR ($F_{1,61}$ = 8.816, p = 0.004), with a greater reduction for completers.

To reduce the effect of the different amount of treatment received by dropouts and completers, the former analysis was repeated using the eighth session as the endpoint instead of the last session attended. The eighth session was chosen because it was the next time point of assessment after the mean length of stay in treatment for the dropout group (6.4 sessions, SD = 4.4). By session eight, 57% of dropouts had abandoned treatment. Missing data for patients dropping out before the eighth session were filled in using the last observation carried forward method.[34] On the BDI-II, there was a significant main effect for time ($F_{1,61}$ = 25.098, p = 0.0001), which showed a reduction in symptoms from session one to session eight, along with a significant time × status interaction ($F_{1,61}$ = 5.083, p = 0.028), in which completers still had a greater reduction in symptoms. However, on the OQ-45.2 IR, there was no significant effect for time ($F_{1,61}$ = 3.390, p = 0.070), nor any significant time × status interaction ($F_{1,61}$ = 3.148, p = 0.081).

A two-by-two (time: post-treatment and 31-month follow-up × status) ANOVA showed a significant effect of time for both the BDI-II ($F_{1,40}$ = 5.605, p = 0.023) and OQ-45.2 IR ($F_{1,40}$ = 4.89, p = 0.044), which indicated a further reduction in symptoms from post-treatment to follow-up. A significant time × status interaction was found for the BDI-II ($F_{1,40}$ = 13.294, p = 0.001), but not for the OQ-45.2 IR ($F_{1,40}$ = 2.011, p = 0.164), which indicated a significantly greater reduction in depressive symptoms for dropouts.

According to Jacobson and Truax's clinical significance criteria,[26] by the last session attended, significantly fewer dropouts had achieved clinically significant change (17%) when compared with the completers (45%) ($\chi^2_{(1, n=63)}$ = 3.75, p = 0.027) (Table 2). However, a considerable proportion of dropouts had achieved clinically significant change by 31-month follow-up (62%). At follow-up, dropouts had achieved clinically significant change significantly more (46% of the retained dropout sample) compared with completers (18% of the retained completer sample, $\chi^2_{(1, n=42)}$ = 3.89, p = 0.044).

Table 1 Raw means, standard deviations, and effect sizes for the first, eighth, and last sessions attended and the 31-month follow-up assessment

	Session mean (SD)				Cohen's d		
	First session	Eighth session	Last session attended	31-mo FU	Last - first session	Eighth - first session	31-mo FU - last session
BDI-II							
Dropout	31.0 (11.7)	27.3 (13.4)	26.7 (12.3)	11.1 (10.0)	-0.39	-0.41	-1.36
Completer	31.5 (10.2)	22.7 (11.8)	17.6 (12.8)	14.6 (11.0)	-1.05	-0.79	-0.23
OQ-45.2 IR							
Dropout	20.4 (5.8)	20.8 (6.2)	21.3 (5.6)	15.6 (5.3)	0.24	0.10	-0.92
Completer	21.4 (5.8)	18.9 (7.5)	17.1 (8.2)	14.6 (7.0)	-0.56	-0.36	-0.34

BDI-II = Beck Depression Inventory II; FU = follow-up; OQ-45.2 IR = Outcome Questionnaire 45, Interpersonal Relations scale; SD = standard deviation.

Table 2 Proportion of reliable and clinically significant changes in depressive symptoms (BDI-II) for dropouts and completers on their last attended session and at 31-month follow-up

Type of change	Dropouts	Completers	$\chi^2_{(1)}$
At last session attended (n=63)	n=23	n=40	
Reliable change*	6 (26%)	25 (62%)	7.74[†]
Clinically significant change*	4 (17%)	18 (45%)	4.89[†]
At 31-month follow-up (n=42)	n=13	n=29	
Maintained clinically significant change	2 (16%)	10 (34%)	0.14
Clinically significant change at follow-up	6 (46%)	5 (18%)	3.89[†]
Never achieved clinically significant change	5 (38%)	8 (27%)	0.12
Deteriorated at follow-up	0 (0%)	6 (21%)	1.67

BDI-II = Beck Depression Inventory-II.
Yates' correction was employed in comparisons containing cells with fewer than five cases.
* Reliable change = proportion of patients who changed more than the Reliable Change Index (BDI-II = 8.46); clinically significant change = patients who simultaneously achieved reliable change and moved into the functional population (BDI-II < 14.29).
[†] p < 0.05.

Discussion

This study presents original analyses assessing the clinical outcomes of a sample of dropouts from a clinical trial of psychotherapy for depression. Before dropping out of treatment, 17% of dropouts recovered, which suggests that they left treatment after a significant improvement in their symptoms. Nevertheless, dropouts showed a more modest reduction in depressive symptoms and interpersonal problems by the last session attended than did treatment completers. Considering only the eight initial sessions for both groups, completers still exhibited superior outcomes regarding reduction of depressive symptoms, but dropouts and completers did not differ in their reduction of interpersonal problems. These findings were consistent with results obtained from a previous dose-response research study with this very sample, which demonstrated that the effects of psychotherapy are initially detected on depressive symptoms and only later on interpersonal problems.[14] This is line with the "phase model" of psychotherapy, which predicts that improvements in well-being and symptoms tend to occur early in therapy (with dramatic changes in the beginning of treatment), whereas improvements in interpersonal functioning occur later.[35-37]

Our finding of improvement in dropouts at long-term follow-up (62% recovery rate) should not be interpreted solely as an effect of psychotherapy, but rather may be due to their high scores by the last session attended or to the natural course of depression. Patients who did not recover were overrepresented in the dropout group; thus, they had more chances to achieve recovery at follow-up (i.e., a ceiling effect), which is a limitation of the study. Still, these findings can be informative for psychotherapists and psychotherapy patients regarding the prognosis of depressive symptoms.

We had a return rate of 67% at 31-month assessment, which is similar to return rates reported in other trials of even shorter follow-up periods (e.g., 69% at 1-year follow-up,[38] 43% at 10-month follow-up,[39] 61% at 3-month follow-up[40]). Still, the sample size was small; thus, generalization of these findings is limited. This may be regarded as the main limitation of our study.

Previous research shows that patients receiving education about typical treatment length had adjusted expectations and dropped out significantly less than those patients who had not received such education.[41] These findings emphasize the importance of dealing effectively with patients at risk of dropping out, and can ground clinicians' recommendations to potential dropout patients on the beneficial short-term advantages of completing treatment (or at least receiving a larger psychotherapy dose). On the basis of the findings presented herein, we suggest that dropping out of therapy does not necessarily indicate clinical failure; some patients do leave treatment after having achieved a clinically significant change in depressive symptoms (i.e., they received a "good enough" psychotherapy dose), while others also go on to achieve clinically significant change, but only in the long run. Ideally, these findings may suggest that dropouts will improve even without therapy. Realistically, they suggest that improvements might take longer to occur for patients who abandon treatment than for patients who complete treatment. Future studies should clarify whether this phenomenon reflects an acquisition of skills despite dropping out from treatment, which might allow dropouts to improve at a slower pace than completers, or if it simply reflects natural remission of depressive episodes and a ceiling effect among completers. Further research might include a replication of these analyses using a larger patient database, ideally gathered by meta-analysis.

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Disclosure

The authors report no conflicts of interest.

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