Patient Choice in Depression Psychotherapy

Patient Choice in Depression Psychotherapy: Outcomes of Patient-Preferred Therapy Versus Randomly Allocated Therapy

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Objective: Patient choice is recognized as a factor that influences clinical outcomes and treatment evaluation in mental health care. However, research on how having a choice affects patients with depression has been rare. This Dutch study examined whether patients randomly selected to choose between two types of depression psychotherapy benefited more from treatment than patients randomly assigned to an intervention.

Methods: Data were derived from a trial of outpatients with depression who were randomly assigned to cognitive therapy (CT), interpersonal psychotherapy (IPT), or a 2-month waitlist control condition followed by the patient's choice of CT or IPT. Treatment groups were combined into a no-choice condition (N=151), with the waitlist as the choice condition (N=31). Multilevel regression was used to compare depression severity (measured with the Beck Depression Inventory–II [BDI-II]) and general psychological distress (measured with the Brief Symptom Inventory [BSI]) posttreatment and at the 5-month follow-up. Differences in patients' pretreatment expectations, beliefs about treatment credibility, and posttreatment evaluation were examined.

Results: No significant differences in clinical outcomes were found between the choice and no-choice conditions (mean difference: BDI-II posttreatment=−0.55, 95% confidence interval [CI]=−5.25 to 4.15; follow-up=2.10, 95% CI=−4.01 to 8.20; BSI posttreatment=−1.89, 95% CI=−15.35 to 11.58; follow-up=3.13, 95% CI=−12.32 to 18.57). Patients in both groups reported comparable scores on pretreatment expectations, credibility beliefs, and posttreatment evaluation. Neither expectations nor credibility beliefs were predictive of clinical outcomes.

Conclusions: Our findings did not support the value of patient choice. Considering the exploratory nature of the trial, future studies designed to examine the effects of choice in depression treatment are recommended.

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Patient choice in treatment selection has been recognized as an important therapeutic factor in clinical guidelines (1–3). Recent meta-analyses (4–6) have shown that patients who are involved in shared decision making about their treatment, who have a choice between treatment types, or who receive their preferred treatment, show significantly better clinical outcomes, treatment satisfaction, and completion rates. Albeit mostly small (Cohen's d=0.15–0.28 on clinical outcomes), these effects have been observed across medical conditions and mental disorders, with possibly the strongest impact on clinical outcomes of patients with depression and anxiety (4, 5). This finding is particularly relevant in the context of depression, where many evidence-based treatments do not appear to differ in efficacy (7, 8). Despite the overall comparability of interventions, factors such as patient choice may help identify patients for whom one treatment is more beneficial than the other. Thus, patient choice could maximize modest depression treatment effects,

HIGHLIGHTS

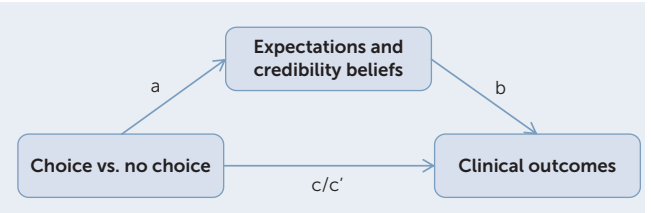
- The authors examined the effect of patient choice in psychotherapy for depression (cognitive therapy [CT] or interpersonal psychotherapy [IPT]) in the context of a randomized controlled trial.
- Participants in the choice condition (randomly selected to choose between CT and IPT) and the no-choice condition (randomly assigned to CT or IPT) did not differ in acute phase clinical outcomes.
- The findings remained consistent throughout the 5-month follow-up.

reduce treatment dropout, and substantially decrease health care costs (9–11).

Previous meta-analyses (4, 5), however, have synthesized results from various study designs, most of which have focused on randomized controlled trials (RCTs) comparing treatment preference match or mismatch by randomization or partial randomization with a choice condition. Although traditional RCTs have been criticized in the treatment preference literature for inherently prohibiting patient choice (12), partially randomized trials are not recommended because of the unmeasured influence of potential confounders (13). Hence, an alternative design comparing participants randomly assigned to a treatment choice or no-choice condition could provide valuable findings about treatment selection (14). This comparison could allow estimation of differential treatment outcomes due to having a choice rather than a receiving imposed treatment—which may be crucial for empowerment and remoralization of individuals with depression (15)—while retaining the strength of a full RCT. Indeed, being randomly assigned to have a treatment choice has been associated with a greater sense of control, better treatment satisfaction, higher remission and response rates, lower treatment costs, and higher quality of life for people with anxiety (16–18). Yet, to our knowledge, research on the effect of choice in depression treatment has been rare, with results so far showing benefit on treatment dropout rates (19) but no additional effect on the severity of posttreatment depressive symptoms (20, 21).

If treatment choice is an important therapeutic factor, it is essential to determine its underlying processes. One way choice may affect clinical outcomes is via stronger pretreatment outcome expectations and beliefs in the treatment's credibility (Figure 1). Expectations are defined as prognostic beliefs about the improvement expected from treatment, whereas credibility beliefs refer to how logical, personally suitable, and convincing an intervention seems to be for a patient (22). Individuals tend to choose the treatment most suited to their problems and skills; actively search for information confirming their choice; and feel less anxious, more confident, and positive about their chosen treatment (23–25). Hence, having a choice of treatment may strengthen expectations and credibility beliefs about the treatment that is finally carried out (26). This idea has been supported by results from recent meta-analyses (27, 28) that have recognized early treatment expectations and credibility beliefs as factors significantly associated with mental health outcomes. Although inconclusive, studies on depression (29–31) have also identified pretreatment expectations and credibility beliefs as predictors of posttreatment depressive symptoms. Therefore, strengthening expectations and credibility beliefs by offering a choice of treatment may improve outcomes, particularly for patients with more severe depression who hold lower treatment expectations and less confidence in the treatment's credibility (30).

FIGURE 1. Potential association between having a treatment choice or no choice and clinical outcomes, as mediated by pretreatment outcome expectations and credibility beliefs[a]



[a] Path a, link between predictor and mediator; path b, link between mediator and outcome; path c, link between predictor and outcome; path c', link between predictor and outcome via mediator.

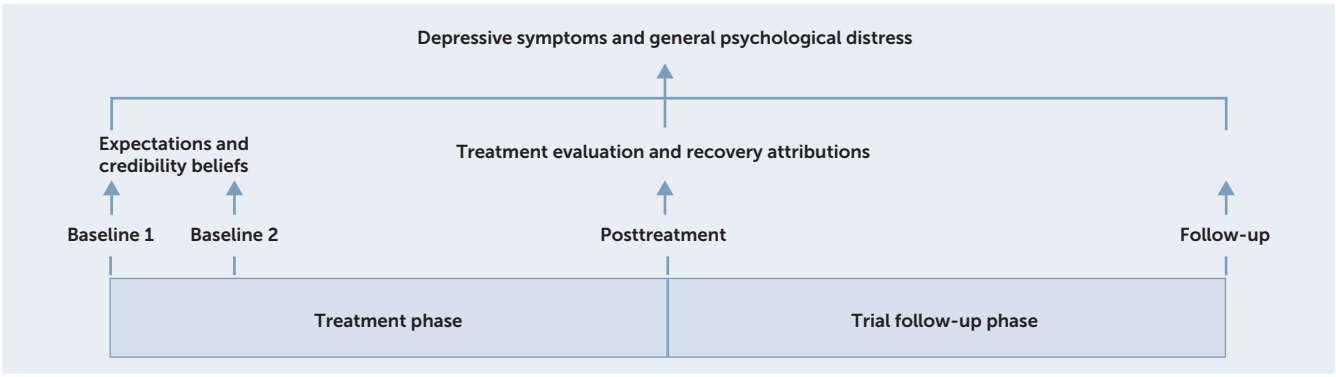
The current study examined whether patients randomly selected to choose between two types of psychotherapy for depression (a choice condition with a compulsory waiting period) benefited more from treatment than patients randomly allocated to one of the interventions (a no-choice condition in which treatment began right away). Although treatment delay may diminish treatment outcome (32, 33), the additional effect of choice may mitigate it. Differences were examined between the choice and no-choice conditions on clinical outcomes (depressive symptoms and general psychological distress), pretreatment outcome expectations, beliefs about the treatment's credibility, and treatment evaluation. We also examined whether expectations and credibility beliefs predicted clinical outcomes or mediated the link between the choice and no-choice conditions and the clinical outcomes. The following four hypotheses were defined: hypothesis 1, participants in the choice condition would show significantly greater reduction in clinical outcomes than participants in the no-choice condition posttreatment and at the 5-month follow-up; hypothesis 2, participants in the choice condition would report significantly higher treatment expectations and stronger credibility beliefs at baseline and higher scores for treatment evaluation posttreatment than no-choice participants; hypothesis 3, expectations and beliefs in the treatment's credibility would stand out as significant predictors of clinical outcomes posttreatment and at the 5-month follow-up; and hypothesis 4, expectations and credibility beliefs would mediate the association between having a choice or not having a choice and clinical outcomes posttreatment and at the 5-month follow-up.

METHODS

Design

Data came from an RCT (34, 35) with 182 adult outpatients randomly assigned to cognitive therapy (CT) (N=76), interpersonal psychotherapy (IPT) (N=75), or a 2-month waitlist control condition (WLC) (N=31) followed by the patients' treatment of choice (CT or IPT). Participants in the CT and IPT treatment groups were combined into the no-choice condition (N=151), and participants in the WLC were analyzed as the choice condition (CT, N=23; IPT, N=8). Data from the treatment and follow-up phases of the trial were

FIGURE 2. Study design and assessment time points for the choice and no-choice conditions[a]



[a] For participants in the no-choice condition, assessments were at pretreatment (baseline 1), posttreatment (7 months), and 5-month follow-up (12 months). For participants in the choice condition, assessments were at randomization (baseline 1), pretreatment (baseline 2, 2 months), posttreatment (9 months), and 5-month follow-up (14 months).

used (see Figure 2 for assessment times). Clinical outcomes were assessed at pretreatment (baseline 1 for the no-choice condition; baseline 2 for the choice condition), posttreatment, and follow-up. Treatment outcome expectations and beliefs about the treatment's credibility were determined at pretreatment, and treatment evaluation and recovery attributions were assessed at posttreatment. The study protocol was approved by the Medical Ethics Committee of Maastricht University in the Netherlands, and the study was registered at The Netherlands Trial Register (ISRCTN 67561918).

Sample

Participants were recruited at the Maastricht Academic Community Mental Health Centre. Inclusion criteria were a primary diagnosis of major depressive disorder as determined by the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I) (36), being age 18–65 years, Internet access, e-mail address, and knowledge of the Dutch language. Exclusion criteria were bipolar or highly chronic depression, acute suicide risk, dependency on alcohol or drugs, current involvement in psychotherapy or pharmacotherapy, and intelligence quotient <80.

The trial was originally powered to detect a medium between-group effect size (d=0.50) (37) in relapse rates between those receiving CT and those receiving IPT at the long-term follow-up and to determine a medium between-group effect size (d=0.58) in depressive symptoms between treatment and the WLC at 2 months (34). The current study was a post hoc exploratory analysis. On the basis of having 182 participants with uneven distribution among conditions (no-choice, N=151; choice, N=31), the power to assess a small-to-medium between-group effect size (d=0.20–0.50, two-tailed α=0.05) was low (17%–71%) (38).

Measures

Depressive symptoms and general psychological distress. To assess the severity of self-reported depressive symptoms, the Beck Depression Inventory–II (BDI-II) (39, 40) was used. The BDI-II is a 21-item, 4-point Likert questionnaire identifying the severity of depression as minimal (score 0–13), mild (score 14–19), moderate (score 20–28), or severe (score 29–63).

To determine the severity of self-reported general psychological distress, the Brief Symptom Inventory (BSI) (41, 42) was used. The BSI is a 53-item, 5-point Likert questionnaire assessing nine psychological and physical symptom dimensions: somatization, cognitive problems, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. Possible scores range from 0 to 212, with higher scores indicating more severe distress.

Evaluation of treatment and therapist. To assess patients' treatment evaluation, the Evaluation of Treatment Questionnaire (ETQ) (see Appendix A in the online supplement to this article) was used. The ETQ was designed for the current trial as a 12-item, 5-point Likert measure assessing the evaluation of the treatment (ETQ-treatment; seven items, possible scores 7–35) and the performance of the therapist (ETQ-therapist; five items, possible scores 5–25). Higher scores indicate a more favorable evaluation.

Recovery attributions. To determine recovery attributions as a descriptive outcome measure of the patient's self-reported general evaluation of the treatment, the Attribution of Recovery Questionnaire (ARQ) (see Appendix B in the online supplement) was administered. This questionnaire was designed for the current trial as a two-item scale assessing self-reported change in depressive symptoms (item 1, 7-point Likert scale) and attribution of this change (items 2–8, depending on the answer to item 1, five categories). Possible answers for the first item range from 1, feeling completely recovered to 7, feeling worse than ever. Answers 1 to 3 were combined to represent "positive change," answer 4 was analyzed as "no change," and answers 5 to 7 were combined into "negative change." Categories for the change attribution consisted of psychotherapy, others, change in personal conditions, myself, and automatic change.

Treatment outcome expectations and credibility beliefs. To assess expectations and credibility beliefs, the Expectations Questionnaire (EQ) (see Appendix C in the online

supplement) was administered. The EQ is a 7-item Likert measure based on the Credibility and Expectancy Questionnaire (CEQ) (22). The EQ focuses on what patients think or feel about the treatment's success and includes two factors: credibility (EQ-credibility; two items, scores 2–18) and expectancy (EQ-expectancy; three items, scores 3–27). The last two items of the questionnaire focus on what patients expect from the treatment (EQ-expectations; scores 1–5) and on how satisfied patients are with their condition (EQ-satisfaction; scores 1–3). A higher score indicates more positive expectations, credibility beliefs, and satisfaction. The whole EQ was administered at pretreatment in the no-choice condition. In the choice condition, credibility and expectancy subscales were administered pretreatment, with the last two items administered immediately after randomization.

Procedure

Participants provided informed consent, completed the baseline assessment, and were randomly allocated to CT, IPT, or the WLC. Participants assigned to the WLC were presented with treatment-related information to allow for informed choice (see Appendix D in the online supplement). After reading and discussing the information, participants chose their preferred treatment (CT or IPT) within the same session, reflecting regular clinical practice procedure. The same treatment-related information was provided to participants randomly assigned to a treatment.

Treatments were provided in 16–20 individual 45-minute sessions adhering to standard manuals of CT (43) and IPT (44). Sessions were offered weekly, but the protocol allowed flexibility in scheduling appointments less often later on in treatment. Independent raters (35) evaluated treatment fidelity of the sessions in the no-choice condition by using the Cognitive Therapy Scale (45) and the IPT Adherence and Quality Scale–Short Version (Stuart, 2011, unpublished manuscript), respectively. Treatment fidelity in the choice condition was not evaluated but was likely high, because the same group of trained therapists provided treatment. Participants who dropped out of treatment were asked to fill out instruments for the intention-to-treat analysis.

Data Analyses

Pretreatment sample characteristics were explored with descriptive statistics to examine clinically relevant differences between the choice and no-choice conditions. Independent samples t tests were used to examine differences between the two conditions in pretreatment outcome expectations (EQ-expectancy and EQ-expectations), credibility beliefs (EQ-credibility), and satisfaction (EQ-satisfaction) with their assigned condition. Internal consistency (Cronbach's alpha) was determined for each outcome measure.

To examine significant differences between conditions in reducing scores of depression severity and general psychological distress posttreatment and at the 5-month follow-up, multilevel gamma regression analyses were conducted in line with the original outcome analyses (35). Gamma regressions were used because of strongly skewed distributions at posttreatment and follow-up (see Appendix E in the online supplement). In the first model, depressive symptoms (BDI-II scores pretreatment, posttreatment, and at the follow-up) were included as a dependent variable with the condition, time (weeks), and time × condition interaction as independent variables. The second model was similar, with general psychological distress (BSI scores pretreatment, posttreatment, and at the follow-up) included as a dependent variable. In line with the intention-to-treat analysis, multilevel models included all participants. Baseline to posttreatment and baseline to follow-up Cohen's d were calculated to determine between-group effect sizes. Response rates (the minimum reduction in symptoms that can be considered as a clinically significant change was conceptualized as a reduction of nine or more BDI-II points) (46) and rates of remission (the cutoff score between healthy and "ill," conceptualized as a posttreatment BDI-II score ≤ 9) (46), were also calculated (35). Binary logistic regression analyses were used to examine differences in rates between conditions.

Gamma regression analyses were further used to test expectations and credibility beliefs as predictors of clinical outcomes. The first and second models were expanded by including expectations, credibility beliefs, and their interactions with condition and time as independent variables. Separate models were conducted for expectations and credibility beliefs. To examine whether expectations and credibility beliefs mediated the link between conditions and clinical outcomes, multiple bootstrap mediation analyses (PROCESS) (47) were planned to be conducted (48). In these models, links between predictor and mediator (path a), mediator and outcome (path b), predictor and outcome (path c), and predictor and outcome via mediator (path c′) are assessed.

Because of strong skewness, the difference in posttreatment evaluation (ETQ) among the groups was analyzed by using nonparametric Mann-Whitney U tests. Posttreatment recovery attributions (ARQ) were analyzed descriptively to build a general idea of how participants evaluated treatment. Data were interpreted by using SPSS Statistics, version 25 (49).

RESULTS

Sample Characteristics, Study Compliance, and Treatment Attrition

There were no clinically important sociodemographic or illness-related differences between participants in the choice and no-choice conditions (Table 1). The mean±SD age of the sample was 40.53±12.2 years; a majority of the participants were women (64%). Most of the participants had a partner (62%), medium education (60%), and active employment (63%). Mean baseline BDI-II score was 29.61± 9.53, with more than half of the sample scoring as severely depressed (55%, BDI-II ≥ 29). There were no significant differences in scores on pretreatment outcome expectations (EQ-expectancy, $t=0.77$, $df=179$, $p=0.44$; EQ-expectations, $t=-1.45$, $df=180$, $p=0.15$), or credibility beliefs (EQ-credibility, $t=0.79$, $df=179$,

TABLE 1. Pretreatment characteristics of participants, stratified by the choice and no-choice conditions

	Choice (N=31)		No choice (N=151)		Total (N=182)	
Characteristic	N	%	N	%	N	%
Age in years (M±SD)	37.3±12.48		41.25±12.05		40.53±12.2	
Sex						
Male	15	48.4	51	33.8	66	36.3
Female	16	51.6	100	66.2	116	63.7
Education[a]						
Low	8	25.8	29	19.2	37	20.3
Medium	20	64.5	89	58.9	109	59.9
High	3	9.7	33	21.9	36	19.8
Partner, yes	18	58.1	94	62.3	112	61.5
Active employment, yes[b]	24	77.4	90	59.6	114	62.6
BDI-II score (M±SD)[c,d]	28.83±12.02		29.77±9.0		29.61±9.53	
BDI ⩾29	16	51.6	84	55.6	100	54.9
BSI score (M±SD)[e]	69.43±37.11		68.49±29.9		68.65±31.09	
EQ-expectancy (M±SD)[f]	19.47±3.88		20.11±4.27		20.01±4.20	
EQ-credibility (M±SD)[g]	12.60±2.18		12.99±2.50		12.92±2.44	
EQ-expectations (M±SD)[h]	4.23±.81		3.97±.89		4.02±.88	
EQ-satisfaction (M±SD)[i]	2.19±.75		2.60±.52		2.53±.58	

[a] Low: no, primary, or prevocational education; medium: secondary, secondary vocational, higher general, or preuniversity education; high: higher professional or university education.
[b] Data unavailable for no choice (N=1).
[c] Possible scores for the Beck Depression Inventory–II (BDI-II) range from 0 to 63 with higher scores indicating more severe depressive symptoms.
[d] Data unavailable for choice (N=1).
[e] Possible scores for the Brief Symptom Inventory (BSI) range from 0 to 212, with higher scores indicating more severe general psychological distress.
[f] Possible scores for the Expectations Questionnaire (EQ)-expectancy range from 3 to 27, with higher scores indicating more positive outcome expectations.
[g] Possible scores for EQ-credibility range from 2 to 18, with higher scores indicating more credibility beliefs.
[h] Possible scores for EQ-expectations range from 1 to 5, with higher scores indicating higher expectations.
[i] Possible scores for EQ-satisfaction range from 1 to 3, with higher scores indicating higher satisfaction.

p=0.43) between the two conditions. Participants in both conditions were highly satisfied with the group they were assigned to, with participants assigned to the choice condition being significantly less satisfied (t=3.69, df=180, p<0.001). Internal consistency of measures ranged from acceptable to excellent for the BDI-II (average for all time points, α=0.93), BSI (average for all time points, α=0.97), EQ-expectancy (α=0.84), EQ-credibility (α=0.65), ETQ-treatment (α=0.87), and ETQ-therapist (α=0.94). Conditions were similar in study compliance at posttreatment and follow-up (choice: N=26, 84% and N=26, 84%, respectively; no-choice: N=134, 89% and N=126, 83%, respectively) (35). Treatment attrition rates (patients who received <12 sessions and still had elevated symptoms) were relatively low and comparable across conditions: (choice: N=4, 13%; no-choice, N=26, 17%).

Effects of the Choice and No-Choice Conditions on Clinical Outcomes

No significant time × condition interactions on BDI-II (B=0.002; F=0.33; df=1, 489; p=0.57) or BSI scores (B=0.001; F=0.06; df=1, 489; p=0.81) were observed (Table 2). Multilevel regression estimated means also showed no significant differences between the choice and no-choice conditions (mean difference: BDI-II posttreatment=–0.55, 95%, confidence interval [CI]=–5.25 to 4.15; follow-up=2.10, 95% CI=–4.01 to 8.20; BSI posttreatment=–1.89, 95% CI=–15.35 to 11.58; follow-up=3.13, 95% CI=–12.32 to 18.57) (see Appendix F in the online supplement). Only the main effect of time was significant, suggesting that depressive symptoms and general psychological distress decreased considerably from baseline to posttreatment and follow-up. A graphic representation of the observed and estimated means of clinical outcomes for both conditions over the three time points is shown in Figure 3. Within-group effect sizes at posttreatment and follow-up were large and comparable across conditions (d>0.80; see online supplement). Most of the between-group effect sizes were small (d<0.20), with a modest nonsignificant difference in the follow-up depression scores in favor of the no-choice condition (d=–0.25, 95% CI=–0.65 to 0.15).

Response and Remission

More than half of the sample responded to treatment (posttreatment: N=120, 66%; follow-up: N=102, 56%). Treatment response rates in both the choice (posttreatment: N=18, 58%; follow-up: N=15, 48%) and no-choice conditions (posttreatment: N=102, 68%; follow-up: N=87, 58%) fell slightly from posttreatment to follow-up with no significant differences (posttreatment: χ^2=0.55, N=160, df=1, p=0.46, odds ratio [OR]=0.71, 95% CI=0.28 to 1.78; follow-up: χ^2=1.24, N=152, df=1, p=0.27, OR=0.61, 95% CI=0.26 to 1.45). Approximately one-third of the sample achieved remission (posttreatment: N=61, 34%; follow-up: N=65, 36%). No significant differences in remission rates between the choice (posttreatment: N=9, 29%; follow-up: N=9, 29%) and no-choice conditions (posttreatment: N=52, 34%; follow-up:

TABLE 2. Results of multilevel gamma regression on the clinical outcomes, based on treatment choice or no-choice condition[a]

Clinical outcome	B	t	95% CI B	F	df	p
BDI–II						
Intercept	3.38	128.80	3.33 to 3.43	40.73	3, 489	<.001
Time[b]	−.02	−10.29	−.02 to −.01	105.78	1, 489	<.001
Condition[c]	−.05	−.71	−.17 to .08	.50	1, 489	.48
Time × condition	.002	.57	−.01 to .01	.33	1, 489	.57
BSI						
Intercept	4.22	115.57	4.15 to 4.29	28.27	3, 489	<.001
Time	−.01	−8.49	−.02 to −.01	72.09	1, 489	<.001
Condition	−.001	−.01	−.18 to .18	<.001	1, 489	.99
Time × condition	.001	.004	−.01 to .01	.06	1, 489	.81

[a] B, unstandardized beta; BDI-II, Beck Depression Inventory–II; BSI, Brief Symptom Inventory. Data were unavailable for one (in the choice condition), 22 (five in the choice condition, 17 in the no-choice condition), and 30 patients (five in the choice condition, 25 in the no-choice condition) at baseline, posttreatment, and follow-up, respectively. BDI-II and BSI scores were adjusted for the gamma regression with log link (+1).
[b] Coded in weeks (0, 30, 52).
[c] Dummy coded (0, no choice; 1, choice).

N=56, 37%) were observed (posttreatment: χ^2=0.16, N=160, df=1, p=0.69, OR=0.84, 95% CI=0.35 to 2.01; follow-up, χ^2=0.84, N=152, df=1, p=0.36, OR=0.66, 95% CI=0.27 to 1.60).

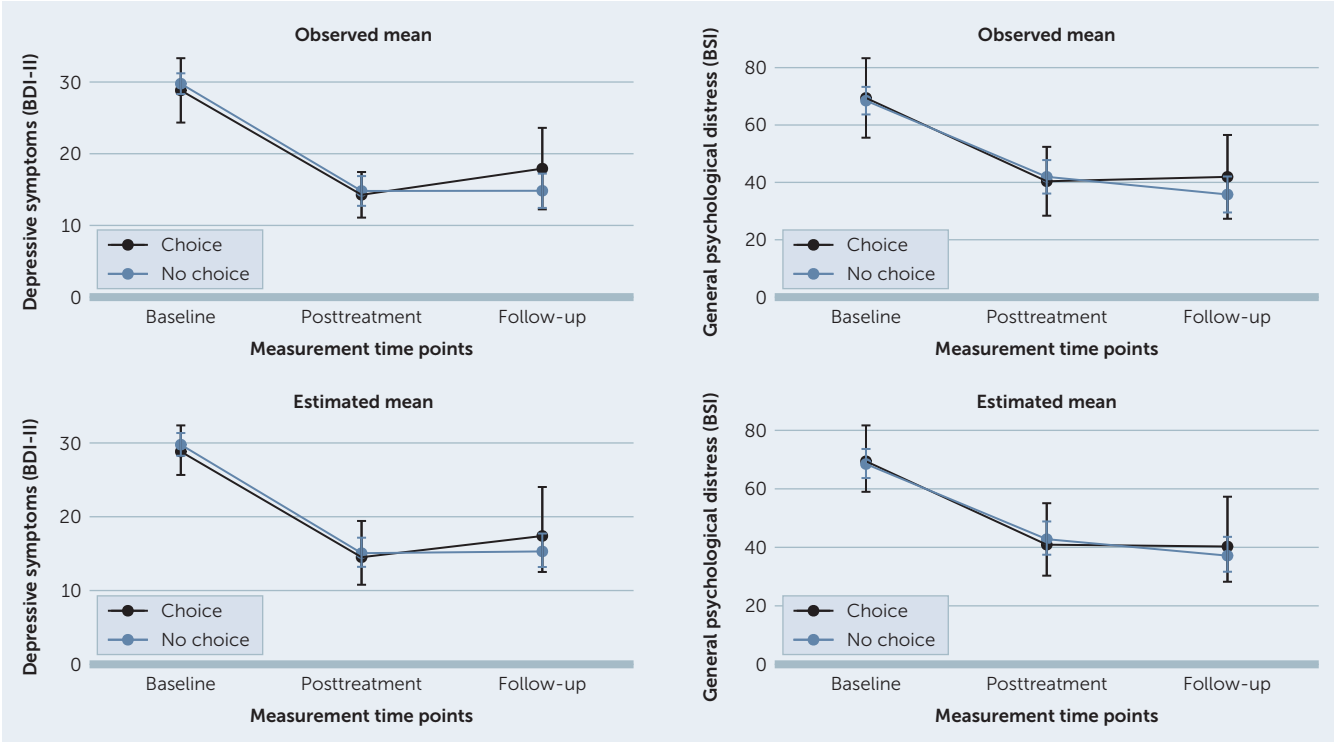
Expectations and Credibility Beliefs as Predictor and/or Mediator Variables

No significant pretreatment outcome expectations and credibility beliefs interactions with time or condition on clinical outcome scores were observed (see online supplement). Bootstrap mediation analyses were not performed because associations between conditions and expectations or credibility beliefs (path a, hypothesis 2) and expectations or credibility beliefs and clinical outcomes (path b, hypothesis 3) were not significant in our previous analyses.

Posttreatment Evaluation

No significant differences were evident between conditions in posttreatment evaluation (ETQ-treatment: U=1,740.00, N=160, p=0.99; ETQ-therapist: U=1,538.00, N=160, p=

FIGURE 3. Observed and estimated course of depressive symptoms and general psychological distress for participants in the choice and no-choice conditions[a]



[a] BDI-II, Beck Depression Inventory–II; BSI, Brief Symptom Inventory. Possible scores for the BDI-II range from 0 to 63, with higher scores indicating more severe depressive symptoms. Possible scores for the BSI range from 0 to 212, with higher scores indicating more severe general psychological distress.

0.33) (see online supplement). A majority of participants reported a positive change in their depressive symptoms (N=143, 79%), which was mostly attributed to the received psychotherapeutic treatment (N=99, 54%), with a slightly higher percentage in the choice condition (N=20, 65%) than in the no-choice condition (N=79, 52%). No change or negative change was reported only by participants in the no-choice condition (N=6, 4% and N=11, 7%, respectively) and was most often attributed to patients themselves, a natural change, or a change in personal conditions (N=10, 7%).

DISCUSSION

This study examined whether patients randomly selected to choose between two types of psychotherapy for major depressive disorder benefited more from treatment than patients who were randomly assigned to one of the interventions. The results showed that there was no significant benefit to having a choice between CT and IPT in reducing depressive symptoms or general psychological distress posttreatment and at the follow-up. In addition, no considerable effect was evident in the scores measuring treatment expectations and credibility beliefs, with participants on average holding high expectations and credibility beliefs. Moreover, there was no significant benefit of choice on posttreatment evaluation: participants in both conditions were very positive in their treatment and therapist evaluation scores. Most of the patients attributed their improvement in depressive symptoms to the intervention received. Regardless of condition, expectations and credibility did not stand out as significant predictors of clinical outcomes.

The absence of a beneficial effect in having a choice of treatment can be interpreted in different ways. First, although the 2-month waiting period was shorter than the waiting time in routine clinical care, the therapeutic effect of choice may have been diminished by the delay in treatment, especially among patients with more severe depression. This result is in line with previous research (32, 33, 50) suggesting a reduced response to depression treatment after delaying its initiation. Second, the choice effect may not be as important when patients choose between two psychotherapy types as it may be when they choose between psychotherapy and pharmacotherapy (17). Indeed, previous research (51, 52) has suggested that a majority of patients with depression prefer psychotherapy or combination treatment over pharmacotherapy alone. Third, merely having a choice may have no additional effect on treatment outcomes among adults with depression, supporting previous findings (20, 21) showing no impact of choice on the reduction of depressive symptoms among adults. This explanation corresponds with the judgment that choice is not as beneficial in improving treatment outcomes for patients with more severe psychopathology or that it does not have as strong an effect on outcomes as matched treatment preference either by choice or random selection (17, 53, 54). Finally, having a choice may affect outcomes other than the ones examined in the current study. For instance, having a choice may boost sense of control and quality of life or may reduce treatment costs and dropout rates (5, 6, 16, 18, 19). Unfortunately, the latter was not explored in the current study because of the low treatment attrition rates, likely resulting in too underpowered analysis.

Regardless of the condition, pretreatment outcome expectations and credibility beliefs did not predict clinical outcomes, a finding that contrasts with previous literature (29–31). These prior findings may have been due to the predominant focus on naturalistic observational settings in previous studies (30, 31), which may have resulted in a distinct sample of participants that differed from the one in our RCT. Moreover, previous research (31, 55) has suggested that expectations and credibility may affect clinical outcomes indirectly via therapeutic alliance or treatment engagement. The lack of an association between credibility beliefs and clinical outcomes may also be explained by the absence of the logicalness item in the credibility measure (22), which has been previously found to be the strongest predictor of depressive symptoms (29). Finally, the current study focused on pretreatment expectations and credibility beliefs. However, throughout the treatment, these factors may have changed and shown differential associations with clinical outcomes (56).

The current study has expanded the literature on the effect of choice in depression treatment in the strong context of an RCT. Yet, these results must be interpreted with caution in light of the limitations of the post hoc analyses. The trial was underpowered to detect significant between-group differences because of an uneven distribution of participants among conditions. Moreover, in both conditions, participants held high expectations and credibility beliefs, resulting in a low variance and low possibility to detect significant effects. Additionally, being randomly selected to have a choice also meant being randomly selected to wait for treatment. Consequently, the effect of the treatment delay on outcomes could not be disentangled from the choice condition, which was also supported by patients in the choice condition being less satisfied with their group assignment. The lack of clinician-rated measures of clinical outcomes was another limitation. However, patients' subjective ratings of their mental state are also a valuable representation of their improvement. Finally, the results can be extrapolated only to patients who agree to participate in the first place.

CONCLUSIONS

In this study, having a choice between CT and IPT for depression did not benefit treatment outcomes. Considering the limited power of the trial and the difference in treatment waiting time across the choice and no-choice conditions, making firm conclusions is difficult. However, if patient choice indeed does not have a strong direct therapeutic value on clinical outcomes, then clinical practices with limited options of psychotherapeutic interventions may successfully provide treatment. At the same time, traditional

RCTs may be conducted without undermining the treatment effect caused by random selection. More trials designed primarily to examine the effect of patient choice of treatment for depression are recommended to avoid the limitations of post hoc analyses and to allow better comparisons with existing findings.

AUTHOR AND ARTICLE INFORMATION

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