

Should treatment for depression be based more on patient preference?

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Abstract: Patient treatment preferences are of growing interest to researchers, clinicians, and patients. In this review, an overview of the most commonly recommended treatments for depression is provided, along with a brief review of the evidence supporting their efficacy. Studies examining the effect of patient treatment preferences on treatment course and outcome are summarized. Existing literature on what treatment options patients tend to prefer and believe to be helpful, and what factors may affect these preferences, is also reviewed. Finally, clinical implications of research findings on patient preferences for depression management are discussed. In summary, although our knowledge of the impact of patient preferences on treatment course and outcome is limited, knowing and considering those preferences may be clinically important and worthy of greater study for evidence-based practice.

Keywords: treatment preferences, depression, antidepressants, psychotherapy

Introduction to managing depression

Depression as an illness represents a significant burden on individuals and society, with depression being a relatively common psychiatric condition that is associated with a significant negative impact on health.¹ A number of different treatment options have been developed to manage depression, including psycho- and pharmacotherapies. At present, treatment guidelines for major depressive disorder^{2,3} recommend the use of antidepressant medication or brief, focused psychotherapies as the first-line treatments for depression. The most commonly recommended treatments and the evidence for their efficacy will be briefly summarized. Based on the available literature, the impact of patient preferences on treatment course and outcome is currently unclear but may be clinically important and worthy of greater study. Research on patient perspectives regarding which treatments are preferred and factors affecting these preferences will also be reviewed. The clinical implications for the treatment of depression accounting for patient preference are discussed.

Review of depression management

A plethora of treatment options currently exist for depression. Although there are therapies outside this first line of treatment options, such as electroconvulsive therapy or transcranial magnetic stimulation, it is outside the scope of this review to explore in detail such treatments. Similarly, self-help approaches or the use of herbs or supplements that are recommended by many laypeople⁴ will not be covered in this review. In many cases, the preferred first-line pharmacological treatment for depression falls into the classification of selective serotonin reuptake inhibitors (SSRIs).³ These include

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fluoxetine, sertraline, paroxetine, fluvoxamine, citalopram, and escitalopram. Tricyclic antidepressants, serotonin–norepinephrine reuptake inhibitors, monoamine oxidase inhibitors, and other medications, including bupropion, nefazodone, trazodone, and mirtazapine, may also be used.² Considerations such as side effect burden, previous medication experience, and patient preference factor into physician treatment recommendations.

A number of psychotherapies have been developed for the treatment of depression as well. Several have obtained various levels of empirical support, including cognitive therapy, interpersonal therapy, behavior therapy, self-control therapy, social problem-solving therapy, and brief dynamic therapy.⁵ At this point, there is little guidance in terms of selecting between empirically supported treatments.

Efficacy studies in the treatment of depression

With so many treatment modalities proposed for the management of depression, a number of outcome studies have been conducted to test these therapies against control conditions, including placebo, and against each other. Although these treatments may vary in the extent of empirical support they have received, the bulk of studies have supported the notion that both medication and psychotherapy are superior to control, and that, in most cases, active treatments (whether it be medication compared with other medication, psychotherapy compared with other psychotherapy, or medication compared with psychotherapy) are more or less equivalent, with certain exceptions.

Medications

Available medications for depression have demonstrated superiority over placebo, and efficacy in treating depressive symptoms.² However, there is some recent and growing evidence from meta-analyses suggesting that when it comes to depression severity, for mild to moderate depression, antidepressants may have a smaller effect than in severe depression, demonstrating effect sizes not much larger than placebos.^{6,7}

When it comes to comparing antidepressants with each other, generally similarities in effectiveness have been found, though side effect profiles may differ.² For example, it appears that tricyclic antidepressants and SSRIs perform similarly in terms of magnitude of effect, though they may differ in tolerability. A meta-analysis comparing these antidepressant classes found that although there was no significant difference in efficacy for tricyclic antidepressants and

SSRIs, patients receiving a tricyclic were significantly more likely to drop out of treatment due to side effects.⁸

Psychotherapy

Meta-analyses have found moderate to large effect sizes for various psychotherapies compared with control conditions, including behavioral therapies,^{9,10} dynamic psychotherapies,^{11,12} and cognitive therapies.¹³ However, there is some evidence that publication bias may be inflating estimates of effect size for psychological treatments for depression, and the true effect size may be more moderate.¹⁴

When meta-analyses have been conducted comparing different forms of psychotherapy in the treatment of depression, results have generally supported treatment equivalence. Cuijpers et al¹⁵ conducted meta-analyses comparing seven different types of psychotherapy with each other. These treatments included cognitive behavioral therapy (CBT), nondirective supportive treatment, behavioral activation treatment, psychodynamic treatment, problem-solving therapy, interpersonal psychotherapy, and social skills training. Interpersonal therapy was found to be somewhat more effective than other treatments, and nondirective supportive treatment was found to be somewhat less effective. All other comparisons found nonsignificant differences. Similar results were found by Barth et al.¹⁶

Medication compared with psychotherapy

Several meta-analyses have also been conducted comparing the efficacy of medications and various psychotherapies for depression. The results of these have indicated that antidepressants and psychotherapies are approximately equivalent in terms of efficacy, though psychotherapies may provide some additional prophylactic effect in terms of recurrence of depression.^{17–19}

Combined treatments

Evidence for combined treatments has been somewhat mixed. In a meta-analysis conducted by Thase et al,²⁰ it was found that for mild to moderate depression, the addition of antidepressant medication did not improve outcomes. However, for those patients with severe depression, the addition of medication was associated with greater symptom reduction. Cuijpers et al²¹ also found a small but significant effect of medication added to psychotherapy, and Barber et al¹¹ reported a meta-analysis on three studies showing that medication plus dynamic therapy was more effective than

medication alone. But do patients willing to participate in such studies represent a potentially biased sample?

How do preferences affect treatment course and outcome?

Although an extensive body of research exists using randomized controlled trials (RCTs) to test the efficacy of various treatments, such trials, which have been used as the standard method of determining intervention efficacy, may be vulnerable to the effects of patient preferences. Some have argued that the traditional RCT design may be flawed because recruitment and engagement may be affected, as some patients are not willing to risk being assigned to a nonpreferred treatment.²² Additionally, some researchers have begun to question whether RCTs, the gold standard for intervention research, may provide an inaccurate representation of real-world efficacy because preferences are not adequately taken into account, and may affect recruitment, engagement, and attrition in RCTs.²³ These researchers have advocated alternative study designs, which allow for greater flexibility and better account for patient preferences.^{22,23}

In the last decade, emphasis has been placed on accommodating patient preferences for depression treatment. American Psychiatric Association guidelines for the treatment of depression suggest that, when possible, providers should attempt to follow a patient's preferences when recommending a course of treatment,^{2,24} and there is emerging evidence that preferences may impact the course of treatment. Initial experimental evidence supports the idea that patients who are able to exercise control over their health care decisions may experience improved outcomes.²⁵ In a recent meta-analysis examining the effect of treatment preference match on outcome across psychiatric conditions, a small but significant effect was found in favor of clients who received the treatment that they preferred.²⁶ In the treatment of depression specifically, there has been an increase in research to determine what kinds of treatment patients tend to prefer, what factors may influence these preferences, and how they may affect treatment course and outcome.

A variety of study designs have been used to examine the relationship between preference and treatment process and outcome. The relationship between preferences and outcome has been explored in a variety of settings; however, primary care settings appear to be the most common. Ultimately, as described later, the results of these studies have been mixed, with some finding no relationship between treatment preferences and outcome, and others reporting a

positive relationship. Studies are organized by design used (see Table 1 for summaries of included studies).

Randomized trials

Randomized trials are often considered the gold standard of intervention research. Some of these trials have assessed patient preference, generally as a secondary data analysis, in order to determine whether preference match or mismatch is associated with treatment course or outcome. The majority of these studies have compared medication and psychotherapy, though a few have compared different forms of talking therapies or medications.

Two randomized trials have compared the effect of preferences in studies for CBT compared with medication.^{27,28} In these trials, outcome did not appear to vary based on whether or not one received one's preferred treatment. Similarly, in an RCT comparing mindfulness-based cognitive therapy with a maintenance dose of antidepressants or pill placebo, the two active treatments were equivalent in preventing relapse, above the effect of the placebo. Preference for medication or mindfulness-based cognitive therapy was assessed, and the effect on preference match or mismatch on outcome was tested. Preference match was not associated with outcome, defined as relapse rate, in this study.²⁹

Patient preferences have also been examined in two studies of a cognitive behavioral analysis system of psychotherapy (CBASP³⁰) with chronically depressed patients. In the first study, patients could receive CBASP, nefazadone, or their combination. It was found that preference match for psychotherapy or medication was associated with a greater remission rate.³¹ In the other study, all patients received antidepressant medication in the first phase of the study. Nonremitters from the first phase were then randomized to receive CBASP plus medication, brief supportive therapy plus medication, or medication alone. The authors report that in the initial phase of the trial, not endorsing any preference was related to treatment response, but preferences were not associated with improvement in the second phase of the study.³²

Kwan et al³³ used data drawn from an RCT in which participants could be randomized to receive one of four options: behavioral activation, cognitive therapy, paroxetine, or pill placebo. Patients were asked whether they preferred to receive pharmacotherapy or talking therapy or had no preference. There was no direct effect of receiving one's preferred treatment and outcome.

As part of the Treatment of Depression Collaborative Research Program,³⁴ "predilection" (defined as beliefs about

Table 1 Summary of reviewed studies

Study	Population	Study design	Treatments compared	Type of preference comparison made	Preferences associated with outcome?	Preferences associated with indirect variables?
Bedi et al ³⁷ Chilvers et al ³⁸	323 depressed primary care patients	Partially randomized preference trial	Antidepressants and counseling	Whether patients chose their preferred treatment or were randomized to treatment	No association with outcome at 8 weeks, but, at 12 months, patients who chose counseling did better than those who were randomized to receive counseling	Those who chose antidepressants were more satisfied than those randomized to receive antidepressants; those who chose counseling attended more sessions than those who were randomized to it
Brown et al ⁴⁹	93 depressed patients	Naturalistic study	Individual and group CBT	Preference for individual versus group CBT	N/A	No association between preferences and attrition
Dobscha et al ⁴⁵	314 depressed patients in the VA	Collaborative care RCT	Collaborative care and treatment as usual (could receive medication and/or counseling)	Preference match/mismatch	No association between preferences and outcome	No association between preference match/mismatch on therapy attendance, filling antidepressant prescription, or satisfaction
Dunlop et al ²⁷	80 depressed patients	Randomized trial	CBT and escitalopram	Preference match/ mismatch, strength of preferences	No association between preferences or strength of preferences and outcome	Patients preferring medication more likely to drop out regardless of whether or not they received medication
Elkin et al ³⁵	82 depressed patients	RCT	CBT, IPT, imipramine plus clinical management, placebo plus clinical management	Treatment "predilection" match/mismatch	No association between predilection and outcome	Less attrition in those who received preferred treatment. Patients receiving preferred treatment had higher alliance ratings and more engaged relationships
Gum et al ⁴⁶	1,602 depressed older primary care patients	Collaborative care RCT	Collaborative care and treatment as usual (medication and/or counseling)	Preference match/ mismatch	No association between preferences and outcome	No association between receipt of preferred treatment and satisfaction
Hunot et al ⁴⁸	178 depressed patients in primary care prescribed antidepressants	Cohort study	N/A	Whether or not they preferred to receive a different treatment	N/A	Patients preferring a different treatment were less likely to be adherent
Iacoviello et al ⁴⁷	75 depressed patients	RCT	Supportive-expressive psychotherapy, sertraline, pill placebo	Preference match/ mismatch	N/A	Preference match for those preferring psychotherapy was related to increases in the alliance over time; mismatch was related to decreases. No association between alliance and preference match for those preferring medication
King et al, ⁴⁰ Ward et al ⁴¹	464 primary care patients with depression or mixed anxiety and depression	Partially randomized preference trial	Nondirective counseling, CBT, treatment as usual	Whether patients chose their preferred treatment or were randomized to treatment	No differences in outcome between those choosing psychological therapy and those randomized to it	Patients choosing counseling were more satisfied than patients choosing CBT
Kocsis et al ³¹	429 chronically depressed patients	RCT with crossover design	CBASP and/or nefazodone	Preference match/ mismatch	Patients receiving preferred treatment improved more	No relationship between treatment preference and attrition
Kwan et al ³³	106 depressed patients	RCT	BA, CT, paroxetine, pill placebo	Preference match/ mismatch	No direct association between preferences and outcome	Mismatch associated with fewer visits attended, greater likelihood of attrition, lower alliance ratings

Leykin et al ¹⁸	174 moderate to severely depressed patients	RCT	CT, paroxetine, pill placebo	Preference match/mismatch	No association between preferences and outcome	Preference match/mismatch not related to dropping out
Lin et al ⁴⁴	335 depressed patients in the VA	Collaborative care RCT	Collaborative care and treatment as usual (could receive medication and/or counseling)	Preference match/mismatch	Matched patients had more rapid improvement at 3 months, but this difference disappeared at 9 months	N/A
Mergl et al ⁴³	145 primary care patients	RCT with patient preference arms	Group CBT, moderated self-help group control, sertraline, pill placebo	Preference match/mismatch	Patients receiving preferred treatment improved more	Preference match/mismatch not related to attendance or dropping out
Raue et al ³⁶	60 depressed, mid-life and elderly primary care patients	Randomized trial	Patients randomly assigned to match/mismatch preferred treatment (escitalopram or interpersonal psychotherapy)	Preference match/mismatch, strength of preferences	Neither preference match/mismatch nor preference strength related to remission	Preference strength related to treatment initiation, adherence. Preference match/mismatch related to treatment initiation but not adherence
Rokke et al ⁴²	40 depressed older patients	Randomized trial with patient preference arms	Self-management therapy focusing on cognitions, self-management therapy focusing on behavior	Whether patients chose their preferred treatment or were randomized to treatment	No differences in outcome between those choosing the target of therapy and those randomized to it	Those who chose their treatment were less likely to drop out than those randomized to it
Segal et al ²⁹	160 depressed patients	Randomized trial	MBCT, antidepressant medication	Preference match/mismatch	No association between preferences and outcome (defined as depression relapse rate)	N/A
Steidtmann et al ²²	785 chronically depressed patients	Two-phase randomized trial	CBASP, antidepressant medication	Type of preference	In the first phase, not endorsing any preference was related to improvement, but preferences were not related to improvement in the second phase	Patients preferring medication were more likely to drop out early
Van et al ³⁹	119 depressed patients	Partially randomized preference trial	Short-term psychodynamic supportive psychotherapy, venlafaxine	Whether patients chose their preferred treatment or were randomized to treatment	No differences in outcome between those choosing psychotherapy and those randomized to it	No association between choosing psychotherapy or being assigned to it on dropout rate

Abbreviations: BA, behavioral activation; CBASP, cognitive behavioral analysis system of psychotherapy; CBT, cognitive behavioral therapy; IPT, interpersonal therapy; MBCT, mindfulness-based cognitive therapy; N/A, not applicable; RCT, randomized controlled trial; VA, Veterans Administration.

the causes of their illness and what would be helpful in treating it) for a particular treatment and its relationship to outcome were examined. In this study, CBT, interpersonal psychotherapy, imipramine plus clinical management, and placebo plus clinical management were compared. Predilection for a particular therapy was not found to be associated with symptom change in this study.³⁵

One study took a somewhat unique methodological approach. Rather than randomizing patients based on treatments, patients in this study were randomized to be either matched or mismatched with their preferred treatment. Treatments in this study consisted of escitalopram or interpersonal psychotherapy for depression. In addition to categorical preference, the study authors also assessed strength of preference. Neither congruence nor preference strength was associated with depression remission.³⁶

Partially randomized preference trials

Partially randomized preference design trials have been utilized several times in recent years specifically to account for patient preferences. In this design, patients without strong preferences are randomly assigned to treatments, and those who do hold a strong preference are offered their choice of treatment. Proponents of this design assert that it allows investigators to parse out the contribution of preferences while controlling for treatment effects, and may encourage participation from patients who might otherwise be reluctant to participate in RCTs with the possibility of random assignment to a nonpreferred treatment.³⁷ The results of these trials have been mixed with regards to the contribution of patient preference on process and outcome.

Several partially randomized preference trials have been conducted comparing talking therapy and antidepressants.^{37–39} In a study utilizing a sequential treatment strategy for depression, comparing medication and short-term psychodynamic supportive psychotherapy, patients choosing psychotherapy and those randomized to it were not found to differ on outcome measures.³⁹ Bedi et al³⁷ similarly report on data from a primary care trial comparing medication and counseling, ultimately finding that being randomly assigned to a treatment or selecting one's preferred treatment (either medication or counseling) did not appear to improve in outcome assessed at 8 weeks. A delayed effect was, however, observed, and, at 12 months, patients who chose counseling did better than those who were randomized to receive counseling, though patients randomized to receive antidepressants did not differ in outcome compared with those who chose it.³⁸

One partially randomized preference trial included two different talking therapies (nondirective counseling and CBT) compared with usual general practitioner care for patients in a general practice setting with depression.^{40,41} Patients who did not have a strong preference were randomized to treatment, whereas those with a strong preference generally preferred a talking therapy, though did not tend to have clear ideas about which one they preferred. Therefore, midway through the study, patients refusing general practitioner care were instead randomized between the two psychological interventions. Consistent with other partially randomized preference trials, patients randomized to psychological interventions did not differ in outcome from those choosing them.

Randomized trials with patient preference arms

Another study design that has been utilized to allow examination of patient preferences is that of the randomized trial with patient preference arms. In these studies, the design is similar to that of a traditional randomized trial, with the addition of a patient preference arm, where patients may be randomly assigned to be allowed to choose the treatment of their choice. In this way, the effect of choice on treatment outcome may be examined. Two such studies have been conducted comparing treatments for depression.^{42,43} In the first, one of the few studies that has compared preferences for talking therapies, self-management therapy focusing on changing cognitions, and self-management therapy with a focus on changing behavior were compared with a control condition. Participants were either randomly assigned or allowed to pick their preferred treatment. The study authors found no differences in outcome between patients in the choice or no choice groups.⁴²

In another randomized trial with preference arms comparing psychotherapy with sertraline, patients receiving their preferred treatment in both the medication and psychotherapy groups were found to improve significantly more than those who did not receive their preferred treatment.⁴³ However, as found in previous studies examining the effect of patient choice, those in the randomized and choice groups did not significantly differ in outcomes.

Collaborative care studies

Several studies have examined the contribution of patient preferences to the process and outcome of depression treatment in primary care settings in the course of investigating collaborative care interventions.^{44–46} In these studies, interventions designed to increase collaborative care are tested.

Unlike other RCTs, the specific treatment administered is not necessarily the focus of study. Two studies that have examined the effect of preference match in such a setting have been conducted in the Veterans Administration (VA) system. In the first, Lin et al⁴⁴ found that patients who received their preferred treatment (antidepressant medication or counseling) demonstrated more rapid improvement than those who did not receive their preferred treatment. However, the matched and mismatched patients did not differ significantly in depression improvement at 9 months. Dobscha et al⁴⁵ also did not find receiving one's preferred treatment in a VA primary care setting to be associated with outcome. A third study examining treatment preferences of older adults in a primary care setting found that receipt of preferred intervention, either medication or counseling, was not associated with improved outcome.⁴⁶

Treatment preferences and indirect measures of outcome

Although the majority of studies have not found a direct relationship between patient preferences and outcome, there is somewhat more evidence that preferences may have an indirect effect, through factors such as engagement or alliance ratings, adherence, attrition, and satisfaction, though the results are mixed for these indirect measures as well.

It appears that the therapeutic relationship and engagement may be affected by patient preferences. In an RCT comparing supportive–expressive psychotherapy with sertraline or placebo, preference match was found to be related to the therapeutic alliance.⁴⁷ In this study, patients preferring psychotherapy who received psychotherapy were found to demonstrate increases in the alliance over the course of treatment, whereas those preferring psychotherapy who did not receive it had decreases in the therapeutic alliance. Treatment congruent or incongruent with a preference for medication was not related to alliance development. Similarly, Kwan et al³³ found that patients who did not receive their preferred form of treatment evidenced lower working alliance scores, though preference was not directly related to outcome. Elkin et al³⁵ also did not find a direct relationship between treatment preference and outcome; however, it was found that patients receiving congruent treatment had higher alliance ratings and more engaged relationships.

Patient adherence to medication may also be impacted by patient preferences. Raue et al³⁶ found that neither categorical preference nor preference strength was related to outcome; however, preference strength was related to adherence at 12 weeks. The authors posit that preference strength

may be important to assess, rather than simply examining categorical preference alone. In a study of antidepressant adherence in primary care, Hunot et al⁴⁸ found that patients who preferred to receive a different therapy from what they received were less likely to adhere to their prescribed antidepressant regimen.

Attendance and attrition may be other important factors related to patient preferences, though the results here have been somewhat inconsistent. Bedi et al³⁷ found that patients randomized to receive counseling attended fewer sessions than those who chose to receive counseling. Rokke et al⁴² did not find a difference in outcome between patients who were and were not allowed to pick the treatment of their choice, but patients allowed to choose their treatment were less likely to drop out prematurely. Similarly, Kwan et al³³ found that patients who did not receive their preferred form of treatment attended fewer sessions and were more likely to drop out of treatment. Although there was not a significant direct relationship between preference and outcome, the authors tested an indirect model, which indicated that preference mismatch indirectly affected outcome, largely due to attendance. Elkin et al³⁵ also found that patients receiving congruent treatment were less likely to drop out at 4 weeks. However, others^{28,31,43} have not found preference mismatch to be associated with attendance or dropout rates. Dobscha et al⁴⁵ did not find an association between receipt of preferred intervention and outcome, attendance in therapy was not significantly different, and patients were no more likely to fill antidepressant prescriptions prescribed by their doctor. Several studies have also found that patients preferring medication are more likely to drop out early regardless of whether or not they received their preferred treatment.^{27,32} In a study comparing individual and group CBT, although patients initially preferred individual therapy, preferences did not appear to affect attrition in either group.⁴⁹

Satisfaction with treatment has been inconsistently associated with treatment preferences for depression. For example, Bedi et al³⁷ found that patients who requested to receive antidepressants were more satisfied than those randomized to receive them. Receiving one's preferred treatment was not associated with increased patient satisfaction in the study conducted by Dobscha et al.⁴⁵ Similarly, Gum et al⁴⁶ did not find a relationship between receiving one's preferred treatment and outcome, nor did satisfaction with treatment received vary.

What do patients think is helpful?

Both lay and clinical populations have been surveyed to understand attitudes toward various treatment options

for depression. People surveyed about treatments for depression often are concerned about potential side effects of antidepressant medications and may believe that antidepressants are addictive, and these beliefs may affect their willingness to pursue treatment.^{50–53} Cost and time commitment may be issues preventing patients from pursuing talking therapy.⁵⁴ Studies have found that patients have more positive attitudes toward psychotherapy but may be reluctant to actually seek the help of a professional.^{52,55}

A significant amount of research exists examining acceptability of various treatment options. When surveyed about treatment preferences, people have generally been found to prefer psychotherapy over medication in the treatment of depression.^{46,52,56–58} Combined treatments (ie, medication and psychotherapy) may also be popular with patients.^{32,59} However, patients often endorse nonempirically supported treatments, such as herbal supplements, self-help books, relaxation, or talking with a friend, and many people may have negative attitudes toward mental health professionals in general.^{4,55,60}

In an exception to the commonly found preference for talking therapy over medication, one survey of VA primary care patients found that 32% of the sample preferred medication, 19% preferred individual counseling, and 18% preferred a combined treatment.⁴⁵ This finding may indicate a shift in treatment preferences, with antidepressants becoming the treatment of choice for many patients.

What factors influence treatment preferences?

A number of factors have been examined in relation to treatment preferences. These have most commonly been demographic variables such as age, race, sex, and depression severity, but other potential contributing factors such as previous treatment experience and etiology beliefs about depression have also been explored.

Older adults have been found to prefer behavioral interventions over pharmacotherapies.⁶¹ The research on the effect of race on treatment preferences has been mixed, with some studies finding no difference in preferences,^{62,63} and others finding differences in the acceptability of medication and psychotherapy, with minority patients often being found to be less accepting of treatment in general, and particularly less accepting of medication.^{57,64,65} With regards to sex, men may be more accepting of medication than women,^{54,56} and women have been found to be more likely to prefer counseling.^{57,66} Severity of depression has been found to be associated with less positive attitudes toward antidepressants.⁶⁷

Contradictorily, it has also been found to be associated with a preference for medication.⁴⁵ Severity may also be associated with greater preference to receive treatment by a professional in general.⁴

The effect of previous experience with depression treatment is also somewhat unclear at this point. Previous experience with depression treatment, either personally or through a friend or family member, has been associated with a more positive attitude toward antidepressants.⁶⁷ Several studies have found that previous experience with counseling or medication is associated with a preference for those interventions.^{46,56} However, other studies have found the opposite result, that previous experience with medication or counseling may be related to a preference for a different treatment.^{57,63} Finally, beliefs about the causes of depression and knowledge about the treatment of depression may influence treatment preferences, such that patients may prefer treatments that are congruent with their etiological beliefs.^{27,32,44,57,63,68}

Conclusion and therapy implications

This paper has covered the literature on patients' treatment preferences for depression and evidence for the efficacy of these treatments. Existing guidelines encourage providers to take patient preference into account when deciding on the best course of treatment.² Considering particularly that various forms of treatment, including various pharmacologic and psychotherapies, have generally demonstrated equivalence in terms of efficacy for the treatment of depression,^{18,19} accounting for patient preferences may be an important deciding factor when choosing the best course of treatment. The existing research examining the relationship between treatment preferences and outcome has been equivocal. However, there is some evidence that the effect of preferences on outcome may be indirect, with several studies providing support for this model.^{33,35,47,48} These studies have indicated that preference match or mismatch may influence the development of the therapeutic relationship, and that patients receiving a nonpreferred treatment may be more likely to be noncompliant or drop out before they have completed a recommended treatment course.

More research is needed in order to determine the true effect of preferences on treatment course. It has been suggested that greater variety in study designs be utilized in order to test the construct, as RCTs, considered the gold standard in intervention research, may not be the ideal setting in which to examine preferences. In studies with this design, patients must be willing to accept random assignment and

the possibility of a nonpreferred treatment, and thus might have weaker preferences than would be found in a natural setting.²² As advocated by a previous review of treatment preferences for depression, alternative designs may be useful in understanding the effects of treatment preferences on outcome.⁶⁹ These may include designs that allow patients who are unwilling to be randomized to choose their preferred treatment or to switch or augment treatments, which may encourage participation in research that people may be otherwise unwilling to consider. Thus far, there have been few studies utilizing partially randomized preference designs or randomized trials with patient preference arms, but such designs may allow for more elucidation of the role of preference in treatment outcome. Future research may also examine the potential interaction of treatment preference with factors such as depression severity, treatment setting, patient and clinician characteristics, and cost considerations.

Although studies have tended to find that patients prefer psychotherapy over pharmacotherapy,^{46,52,56–58} many patients prefer to be seen in a primary care setting, and rates of antidepressant use have increased over the last several decades, whereas psychotherapy rates are decreasing.^{58,70} Increased accessibility to psychotherapeutic services, particularly in a primary care setting, may increase the likelihood of patients receiving their preferred treatment. In the treatment of depression, adherence with medication is often low, with many patients being nonadherent to treatment recommendations.⁷¹ Side effects are often cited as the main reason for discontinuation of treatment.⁸ Addressing potential concerns with regards to treatment options may help mitigate these problems with adherence.

Training programs to increase physician awareness and solicitation of patient preferences may also be helpful. Programs designed to increase patient involvement in treatment decision making, including collaborative care and shared decision making interventions, have been found to result in increased service utilization, more patients receiving their preferred treatment, and improved outcomes.^{46,72–77} Collaborative care has also been found to be associated with increased satisfaction and receipt of more adequate depression treatment.⁷⁸ Patients more involved in their treatment decision making have been found to improve more and to be more likely to receive guideline-concordant care.⁷⁹ However, more research remains to be done with regards to shared decision making in the treatment of depression and other mental disorders.⁸⁰ With these interventions, physicians may become more likely to solicit patient attitudes toward various

treatment options, and subsequently tailor their treatments, when appropriate, to patient preferences.

Disclosure

The authors report no conflicts of interest in this work.

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