Patient Preference and Adherence

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REVIEW

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 laypeople[4] 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 buproprion, nefazodone, trazodone, and mertazipine, may also be used.[2] Considerations such as side effect burden, previous medication experience, and patient preference factor in to 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 al[15] 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 al[21] also found a small but significant effect of medication added to psychotherapy, and Barber et al[11] 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 (CBASP[30]) 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 al[33] 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[28]	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[32]	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; CT, cognitive 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 al[37] 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 al[44] 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 al[45] 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 al[33] 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 al[35] 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 al[36] 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 al[48] 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 al[37] found that patients randomized to receive counseling attended fewer sessions than those who chose to receive counseling. Rokke et al[42] 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 al[33] 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 al[35] 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 al[45] 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 al[37] 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 al[46] 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 pharmaco- 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.

References

1. Moussavi S, Chatterji S, Verdes E, Tandon A, Patel V, Ustun B. Depression, chronic diseases, and decrements in health: results from the world health surveys. *Lancet*. 2007;370(9590):851–858.
2. American Psychiatric Association (APA). *Practice Guideline for the Treatment of Patients with Major Depressive Disorder*. 3rd ed. Arlington, VA: American Psychiatric Association (APA); 2010.
3. National Institute for Health and Clinical Excellence. Depression: the treatment and management of depression in adults (partial update of NICE Clinical Guideline 23). London, UK: NICE; 2009.
4. Berner MM, Kriston L, Sitta P, Härter M. Treatment of depressive symptoms and attitudes towards treatment options in a representative german general population sample. *Int J Psychiatry Clin Pract*. 2008;12(1):5–10.
5. Society of Clinical Psychology, American Psychological Association, Division 12. Empirically supported treatments for depression. American Psychological Association; 2010. Available from: http://www.apa.org/divisions/div12/rev_est/depression.html. Accessed September 11, 2013.
6. Fournier JC, DeRubeis RJ, Hollon SD, et al. Antidepressant drug effects and depression severity: a patient-level meta-analysis. *JAMA*. 2010;303(1):47–53.
7. Kirsch I, Deacon BJ, Huedo-Medina TB, Scoboria A, Moore TJ, Johnson BT. Initial severity and antidepressant benefits: a meta-analysis of data submitted to the Food and Drug Administration. *PLoS Med*. 2008;5(2):e45.
8. MacGillivray S, Arroll B, Hatcher S, et al. Efficacy and tolerability of selective serotonin reuptake inhibitors compared with tricyclic antidepressants in depression treated in primary care: systematic review and meta-analysis. *BMJ*. 2003;326(7397):1014–1017.
9. Cuijpers P, van Straten A, Warmerdam L. Behavioral activation treatments of depression: a meta-analysis. *Clin Psychol Rev*. 2007;27(3):318–326.
10. Ekers D, Richards D, Gilbody S. A meta-analysis of randomized trials of behavioural treatment of depression. *Psychol Med*. 2008;38:611–623.
11. Barber JP, Muran, JC, McCarthy KS, Keefe JR. Research on dynamic therapies. In: Lambert MJ, editor. *Handbook of Psychotherapy and Behavior Change*. 6th ed. New York, NY: Wiley; 2013:443–494.
12. Driessen E, Cuijpers P, de Maat SC, et al. The efficacy of short-term psychodynamic psychotherapy for depression: a meta-analysis. *Clin Psychol Rev*. 2010;30(1):25–36.
13. Butler AC, Chapman JE, Forman EM, Beck AT. The empirical status of cognitive-behavioral therapy: a review of meta-analyses. *Clin Psychol Rev*. 2006;26(1):17–31.
14. Cuijpers P, Smit F, Bohlmeijer E, Hollon SD, Andersson G. Efficacy of cognitive-behavioural therapy and other psychological treatments for adult depression: meta-analytic study of publication bias. *Brit J Psychiatry*. 2010;196(3):173–178.
15. Cuijpers P, van Straten A, Andersson G, van Oppen P. Psychotherapy for depression in adults: a meta-analysis of comparative outcome studies. *J Consult Clin Psychol*. 2008;76(6):909–922.
16. Barth J, Munder T, Gerger H, Nüesch E, Trelle S, et al. Comparative efficacy of seven psychotherapeutic interventions for patients with depression: a network meta-analysis. *PLoS Med*. 2013;10(5):e1001454.
17. Cuijpers P, Sijbrandij M, Koole SL, Andersson G, Beekman AT, Reynolds CF 3rd. The efficacy of psychotherapy and pharmacotherapy in treating depressive and anxiety disorders: a meta-analysis of direct comparisons. *World Psychiatry*. 2013;12(2):137–148.

18. De Maat S, Dekker J, Schoevers R, De Jonghe F. Relative efficacy of psychotherapy and pharmacotherapy in the treatment of depression: a meta-analysis. *Psychother Res*. 2006;16(5):562–572.
19. Imel ZE, Malterer MB, McKay KM, Wampold BE. A meta-analysis of psychotherapy and medication in unipolar depression and dysthymia. *J Affect Disord*. 2008;110(3):197–206.
20. Thase ME, Greenhouse JB, Frank E, et al. Treatment of major depression with psychotherapy or psychotherapy-pharmacotherapy combinations. *Arch Gen Psychiatry*. 1997;54(11):1009–1015.
21. Cuijpers P, van Straten A, Hollon SD, Andersson G. The contribution of active medication to combined treatments of psychotherapy and pharmacotherapy for adult depression: a meta-analysis. *Acta Psychiatr Scand*. 2010;121(6):415–423.
22. TenHave TR, Coyne J, Salzer M, Katz I. Research to improve the quality of care for depression: alternatives to the simple randomized clinical trial. *Gen Hosp Psychiatry*. 2003;25(2):115–123.
23. Corrigan PW, Salzer MS. The conflict between random assignment and treatment preference: implications for internal validity. *Eval Program Plann.* 2003;26(2):109–121.
24. Schulberg HC, Katon W, Simon GE, Rush AJ. Treating major depression in primary care practice: an update of the agency for health care policy and research practice guidelines. *Arch Gen Psychiatry*. 1998;55(12):1121–1127.
25. Geers AL, Rose JP, Fowler SL, Rasinski HM, Brown JA, Helfer SG. Why does choice enhance treatment effectiveness? Using placebo treatments to demonstrate the role of personal control. *J Pers Soc Psychol*. Epub August 5, 2013.
26. Swift JK, Callahan JL. The impact of client treatment preferences on outcome: a meta-analysis. *J Clin Psychol.* 2009;65(4):368–381.
27. Dunlop BW, Kelley ME, Mletzko TC, Velasquez CM, Craighead WE, Mayberg HS. Depression beliefs, treatment preference, and outcomes in a randomized trial for major depressive disorder. *J Psychiatr Res.* 2012;46(3):375–381.
28. Leykin Y, DeRubeis RJ, Gallop R, Amsterdam JD, Shelton RC, Hollon SD. The relation of patients' treatment preferences to outcome in a randomized clinical trial. *Behavior Therapy.* 2007;38(3):209–217.
29. Segal ZV, Bieling P, Young T, et al. Antidepressant monotherapy vs sequential pharmacotherapy and mindfulness-based cognitive therapy, or placebo, for relapse prophylaxis in recurrent depression. *Arch Gen Psychiatry*. 2010;67(12):1256–1264.
30. McCullough JP. Treatment for chronic depression: cognitive behavioral analysis system of psychotherapy. New York, NY: Guilford Press; 2000.
31. Kocsis JH, Leon AC, Markowitz JC, et al. Patient preference as a moderator of outcome for chronic forms of major depressive disorder treated with nefazodone, cognitive behavioral analysis system of psychotherapy, or their combination. *J Clin Psychiatry.* 2009;70(3):354–361.
32. Steidtmann D, Manber R, Arnow BA, et al. Patient treatment preference as a predictor of response and attrition in treatment for chronic depression. *Depress Anxiety.* 2012;29(10):896–905.
33. Kwan BM, Dimidjian S, Rizvi SL. Treatment preference, engagement, and clinical improvement in pharmacotherapy versus psychotherapy for depression. *Behav Res Ther.* 2010;48(8):799–804.
34. Elkin I, Shea MT, Watkins JT, Imber SD. National Institute of Mental Health Treatment of Depression Collaborative Research Program: general effectiveness of treatments. *Arch Gen Psychiatry*. 1989;46(11):971–982.
35. Elkin I, Yamaguchi JL, Arnkoff DB, Glass CR, Sotsky SM, Krupnick JL. "Patient–treatment fit" and early engagement in therapy. *Psychother Res*. 1999;9(4):437–451.
36. Raue PJ, Schulberg HC, Heo M, Klimstra S, Bruce ML. Patients' depression treatment preferences and initiation, adherence, and outcome: a randomized primary care study. *Psychiatr Serv.* 2009;60(3):337–343.
37. Bedi N, Chilvers C, Churchill R, et al. Assessing effectiveness of treatment of depression in primary care: partially randomised preference trial. *Brit J Psychiatry.* 2000;177:312–318.
38. Chilvers C, Dewey M, Fielding K, et al. Antidepressant drugs and generic counselling for treatment of major depression in primary care: randomised trial with patient preference arms. *BMJ*. 2001;322(7289):772–775.
39. Van HL, Dekker J, Koelen J, et al. Patient preference compared with random allocation in short-term psychodynamic supportive psychotherapy with indicated addition of pharmacotherapy for depression. *Psychother Res.* 2009;19(2):205–212.
40. King M, Sibbald B, Ward E, et al. Randomised controlled trial of non-directive counselling, cognitive-behaviour therapy and usual general practitioner care in the management of depression as well as mixed anxiety and depression in primary care. *Health Technol Assess*. 2000;4:1–83.
41. Ward E, King M, Lloyd M, et al. Randomised controlled trial of non-directive counselling, cognitive-behaviour therapy, and usual general practitioner care for patients with depression. I: Clinical effectiveness. *BMJ*. 2000;321(7273):1383–1388.
42. Rokke PD, Tomhave JA, Jocic Z. The role of client choice and target selection in self-management therapy for depression in older adults. *Psychol Aging*. 1999;14(1):155–169.
43. Mergl R, Henkel V, Allgaier AK, et al. Are treatment preferences relevant in response to serotonergic antidepressants and cognitive-behavioral therapy in depressed primary care patients? Results from a randomized controlled trial including a patients' choice arm. *Psychother Psychosom.* 2010;80(1):39–47.
44. Lin P, Campbell DG, Chaney EF, et al. The influence of patient preference on depression treatment in primary care. *Ann Behav Med.* 2005;30(2):164–173.
45. Dobscha SK, Corson K, Gerrity MS. Depression treatment preferences of VA primary care patients. *Psychosomatics.* 2007;48(6):482–488.
46. Gum AM, Areán PA, Hunkeler E, et al. Depression treatment preferences in older primary care patients. *Gerontologist.* 2006;46(1):14–22.
47. Iacoviello BM, McCarthy KS, Barrett MS, Rynn M, Gallop R, Barber JP. Treatment preferences affect the therapeutic alliance: Implications for randomized controlled trials. *J Consult Clin Psychol.* 2007;75(1):194–198.
48. Hunot VM, Horne R, Leese MN, Churchill RC. A cohort study of adherence to antidepressants in primary care: the influence of antidepressant concerns and treatment preferences. *Prim Care Companion J Clin Psychiatry*. 2007;9:91–99.
49. Brown JS, Sellwood K, Beecham JK, et al. Outcome, costs and patient engagement for group and individual CBT for depression: a naturalistic clinical study. *Behav Cogn Psychother*. 2011;39(3):355–358.
50. Morey E, Thacher JA, Craighead WE. Patient preferences for depression treatment programs and willingness to pay for treatment. *J Ment Health Policy Econ.* 2007;10(2):73–85.
51. Priest RG, Vize C, Roberts A, Roberts M, Tylee A. Lay people's attitudes to treatment of depression: results of opinion poll for Defeat Depression Campaign just before its launch. *BMJ*. 1996;313:858–859.
52. van Schaik DJ, Klijn AF, van Hout HP, et al. Patients' preferences in the treatment of depressive disorder in primary care. *Gen Hosp Psychiatry.* 2004;26(3):184–189.
53. Wittink MN, Cary M, TenHave T, Baron J, Gallo JJ. Towards patient-centered care for depression: conjoint methods to tailor treatment based on preferences. *Patient.* 2010;3(3):145–157.
54. Burg MM, Rieckmann N, Clemow L, Medina V, Schwartz J, Davidson KW. Treatment preferences among depressed patients after acute coronary syndrome: the COPES observational cohort. *Psychother Psychosom.* 2011;80(6):380–382.
55. Angermeyer MC, Matschinger H, Riedel-Heller S. Whom to ask for help in case of a mental disorder? Preferences of the lay public. *Soc Psychiatry Psychiatr Epidemiol.* 1999;34(4):202–210.
56. Churchill R, Khaira M, Gretton V, et al; Nottingham Counselling and Antidepressants in Primary Care (CAPC) Study Group. Treating depression in general practice: factors affecting patients' treatment preferences. *Br J Gen Pract*. 2000;50:905–906.

57. Dwight-Johnson M, Sherbourne CD, Liao D, Wells KB. Treatment preferences among depressed primary care patients. *J Gen Intern Med.* 2000;15(8):527–534.
58. Löwe B, Schulz U, Gräfe K, Wilke S. Medical patients' attitudes toward emotional problems and their treatment: what do they really want? *J Gen Intern Med*. 2006;21(1):39–45.
59. Dwight-Johnson M, Lagomasino IT, Aisenberg E, Hay J. Using conjoint analysis to assess depression treatment preferences among low-income Latinos. *Psychiatric Services.* 2004;55(8):934–936.
60. Hickie IB, Luscombe GM, Davenport TA, Burns JM, Highet NJ. Perspective of young people on depression: awareness, experiences, attitudes and treatment preferences. *Early Interv Psychiatry.* 2007;1: 333–339.
61. Arean PA. Personalizing behavioral interventions: the case of late-life depression. *Neuropsychiatry*. 2012;2:135–145.
62. Chandra A, Scott MM, Jaycox LH, Meredith LS, Tanielian T, Burnam A. Racial/ethnic differences in teen and parent perspectives toward depression treatment. *J Adolesc Health*. 2009;44(6):546–553.
63. Khalsa S, McCarthy KS, Sharpless BA, Barrett MS, Barber JP. Beliefs about the causes of depression and treatment preferences. *J Clin Psychol.* 2011;67(6):539–549.
64. Cooper LA, Gonzales JJ, Gallo JJ, et al. The acceptability of treatment for depression among African-American, Hispanic, and white primary care patients. *Med Care*. 2003;41(4):479–489.
65. Givens JL, Houston TK, Van Voorhees BW, Ford DE, Cooper LA. Ethnicity and preferences for depression treatment. *Gen Hosp Psychiatry*. 2007;29(3):182–191.
66. Houle J, Villaggi B, Beaulieu M, Lespérance F, Rondeau G, Lambert J. Treatment preferences in patients with first episode depression. *J Affect Disord.* 2012;147:94–100.
67. Berkowitz SA, Bell RA, Kravitz RL, Feldman MD. Vicarious experience affects patients' treatment preferences for depression. *PLoS ONE.* 2012;7(2):e31269.
68. Goldstein B, Rosselli F. Etiological paradigms of depression: the relationship between perceived causes, empowerment, treatment preferences, and stigma. *J Ment Health.* 2003;12(6):551–563.
69. Gelhorn HL, Sexton CC, Classi PM. Patient preferences for treatment of major depressive disorder and the impact on health outcomes: a systematic review. *Prim Care Companion CNS Disord*. 2011;13(5): PCC:11r01161.
70. Marcus SC, Olfson M. National trends in the treatment for depression from 1998 to 2007. *Arch Gen Psychiatry*. 2010;67(12):1265–1273.
71. Masand PS. Tolerability and adherence issues in antidepressant therapy. *Clin Ther*. 2003;25(8):2289–2304.
72. Bower P, Gilbody S, Richards D, Fletcher J, Sutton A. Collaborative care for depression in primary care. Making sense of a complex intervention: systematic review and meta-regression. *Brit J Psychiatry*. 2006;189:484–493.
73. Christensen H, Griffiths KM, Gulliver A, Clack D, Kljakovic M, Wells L. Models in the delivery of depression care: a systematic review of randomised and controlled intervention trials. *BMC Fam Pract*. 2008;9:25.
74. Dwight-Johnson M, Unützer J, Sherbourne C, Tang L, Wells KB. Can quality improvement programs for depression in primary care address patient preferences for treatment? *Med Care.* 2001;39(9):934–944.
75. Dwight-Johnson M, Lagomasino IT, Hay J, et al. Effectiveness of collaborative care in addressing depression treatment preferences among low-income Latinos. *Psychiatric Services.* 2010;61(11):1112–1118.
76. Swanson KA, Bastani R, Rubenstein LV, Meredith LS, Ford DE. Effect of mental health care and shared decision making on patient satisfaction in a community sample of patients with depression. *Med Care Res Rev*. 2007;64(4):416–430.
77. Unützer J, Katon W, Callahan CM, et al. Collaborative care management of late-life depression in the primary care setting: a randomized controlled trial. *JAMA*. 2002;288(22):2836–2845.
78. Katon WJ, Von Korff M, Lin EH, et al. The Pathways Study: a randomized trial of collaborative care in patients with diabetes and depression. *Arch Gen Psychiatry*. 2004;61(10):1042–1049.
79. Clever SL, Ford DE, Rubenstein LV, et al. Primary care patients' involvement in decision-making is associated with improvement in depression. *Med Care*. 2006;44(5):398–405.
80. Duncan E, Best C, Hagen S. Shared decision making interventions for people with mental health conditions (review). *Cochrane Database Syst Rev*. 2010;1:CD007297.