Behavioral activation therapy for treating unipolar major depression

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INTRODUCTION

Behavioral activation is a psychotherapy that is indicated for treating unipolar major depression [1,2]. Rigorous research supports behavioral activation as a primary treatment for unipolar major depression and suggests that its efficacy is comparable to antidepressant medication, even among more severely depressed patients [3]. Several qualities beyond efficacy make behavioral activation an appealing choice for treatment: the therapy is readily understood by patients and clinicians, does not require complex training or skills, can be administered by nonspecialists, and is time limited and cost effective. The therapy was initially developed for treating unipolar depression but is also used for other psychiatric disorders, as well as promoting well-being in nonclinical populations [4-7].

Behavioral activation relies upon a behavioral approach to understanding depression and is based upon findings that depressed patients pursue rewarding, pleasant activities less often than nondepressed individuals, and thus obtain less positive reinforcement [8]. The therapy consists of specific clinical strategies that include self-monitoring, structuring, and scheduling activities, problem solving, and skills training. The repeated application of these strategies, in a structured format and with a prescribed style, can help depressed patients increase activities that are adaptive and rewarding, decrease withdrawal and avoidance behaviors that maintain or exacerbate depression, and solve problems [1,2].

Prospective observational studies using functional neuroimaging suggest that anomalies in neural networks of patients with major depression may predict response to behavioral activation [9-12], and that successful treatment with behavioral activation may be associated with functional changes in reward-related neural networks [13], and changes in prefrontal brain networks that mediate cognitive control [14-16]. However, the clinical significance of these findings is unknown.

This topic discusses the indications for behavioral activation, its theoretical foundation, assessment of patients prior to and during treatment, therapeutic interventions used when implementing the treatment, and the evidence for its efficacy in treating unipolar major depression. Choosing a specific treatment for major depression is discussed separately. (See "Unipolar major depression in adults: Choosing initial treatment" and "Unipolar depression in adults: Choosing treatment for resistant depression" and "Unipolar depression in adults: Continuation and maintenance treatment".)

THEORETICAL FOUNDATION

Behavioral activation is a type of behavior therapy that is rooted in work on behavioral theory in the 1970s [1,2,17]. Behavioral theory focuses upon current determinants of behavior rather than prior conflicts and relationships, and conceptualizes depression as a function of reinforcement in the patient's environment and the patient's response to that environment.

The behavioral model states that depression occurs in a context and that antecedent factors or events have occurred in the patient's life to evoke or trigger depression [1,18]. Potential triggers include external (environmental) factors such as losses (eg, death of a loved one or losing a job), other significant life events (eg, geographical relocations, changing jobs, or failure to achieve important goals), or chronic problems (eg, ongoing daily hassles such as commuting to work). Other triggers include internal factors such as neurobiologic vulnerabilities, onset of general medical illnesses, or medications.

The net effect of these antecedent factors is twofold [1]:

- Contact with positive reinforcement for adaptive behavior is limited; studies indicate that depressed patients pursue rewarding, pleasant activities less often than nondepressed individuals, and thus obtain less positive reinforcement.
- The individual is increasingly subjected to aversive experiences that lead to avoidant behavior (a form of negative reinforcement in which one escapes unpleasant experiences).

The behavioral model hypothesizes that depression (table 1) is a common response to living with such circumstances and is linked to specific actions that patients take or avoid. Behavioral activation addresses these actions.

Contact with positive environmental reinforcers that can prevent or reduce depressive symptoms may at some point become unavailable due to life changes [19]. Alternatively, positive reinforcers may include awkward or painful aspects; avoidance of these reinforcers initially minimizes distress, but in the long-term causes and maintains the depressive syndrome [3]. As an example, conflict with a coworker may lead an individual to stop going to work, which reduces difficult interactions with the coworker. However, the individual loses the routine and sense of well-being that work provides, and the avoidant behavior also creates new problems by decreasing income and frustrating the patient's supervisor. The result is that avoidant behavior preempts positively reinforced behavior.

Behavioral activation uses specific strategies to address withdrawal and disruption in basic life routines, and to change avoidance behavior [2,18]. The behavioral model posits that withdrawal and avoidance are understandable responses, but can initiate and maintain downward spirals in which decreased activity causes increased symptoms of depression and difficulties in solving life problems. Behavioral activation addresses these downward spirals through efforts to increase activation and engagement with the environment, which helps patients experience sources of reward more readily and solve contextual problems, which in turn can ameliorate acute depression and prevent relapse. This model is used to guide case conceptualization and treatment planning.

One impetus for studying and using behavioral activation arose from a study in the 1990s, which compared the behavioral activation component of cognitive-behavioral therapy (CBT) with the full CBT [20]. The full treatment also includes components of cognitive therapy that focus upon modifying automatic, dysfunctional thinking and core beliefs. Results from the study showed that outcomes with behavioral activation and the full treatment were comparable. Additional information about the benefit of behavioral activation compared with other psychotherapies, such as CBT, is discussed elsewhere in this topic. (See 'Compared with other psychotherapies' below.)

INDICATIONS

Behavioral activation is indicated for mild to severe unipolar major depression, based upon randomized trials. These studies have demonstrated that the therapy can help multiple populations, including [1,21-30]:

- Adult, adolescent, and geriatric patients
- Primary care patients
- Hospitalized patients
- Spanish-speaking patients
- Pregnant and postpartum patients
- Patients with substance use disorders
- Patients with posttraumatic stress disorder

In addition, behavioral activation is indicated for depressed patients receiving psychotherapy plus pharmacotherapy as initial treatment, and is also indicated as add-on treatment for depressed patients who do not respond to initial monotherapy with antidepressant medications [22-25].

Treating unipolar major depression with behavioral activation is consistent with multiple practice guidelines, including those from the American Psychiatric Association [31,32], Department of Veterans Affairs [33], Canadian Network for Mood and Anxiety Treatments [34], the National Institute for Health and Care Excellence [35], and the World Health Organization's Mental Health Gap Action Program [36].

It is not clear if behavioral activation is useful for smoking cessation. In one randomized trial that specifically targeted smoking cessation in depressed patients, abstinence and improvement of depression were each greater with behavioral activation than the control condition [4]. However, another trial found that in primary care patients who smoked and were initially willing to reduce their smoking but not quit, behavioral activation did not increase abstinence [37].

Contraindications — As with all psychotherapies, the only specific contraindications to behavioral activation are lack of either motivation or cognitive capacity to participate in treatment and complete assigned activities. Nevertheless, most studies have used exclusion criteria that can usefully guide clinical practice. As an example, many studies targeting unipolar major depression have excluded patients who required another primary treatment, including patients with [3,22,24,38]:

- Psychotic disorders
- Eating disorders
- Antisocial, borderline, or schizotypal personality disorder
- Depressive disorder due to another medical condition
- High risk of suicide

Although some studies have also excluded patients with bipolar disorders, a small prospective observational study in 12 patients with bipolar depression found that adjunctive behavioral activation was helpful [29,30,39].

Clinicians should always assess patients for suicidal ideation and behavior to ensure that imminent risk concerns do not necessitate inpatient treatment to maintain safety. (See "Suicidal ideation and behavior in adults", section on 'Patient evaluation'.)

If depressed patients present with comorbid general medical or psychiatric illnesses that are more severe or disabling than depression and necessitate other treatments that take priority, clinicians can sequence treatments by delaying the start of behavioral activation for depression until the comorbidity is adequately addressed.

ASSESSMENT AND MONITORING

Three types of assessment and monitoring are conducted as part of behavioral activation:

- **Diagnostic assessment** – Candidates for behavioral activation are assessed to establish the diagnosis of unipolar major depression (table 1). (See "Unipolar depression in adults: Assessment and diagnosis".)

- **Symptom severity** – The severity (intensity) of symptoms is assessed with a self-report, standardized, depression rating scale that patients complete at the outset of treatment to establish a baseline, and prior to the beginning of each subsequent session to monitor the patient's progress. We suggest the widely-used Patient Health Questionnaire – Nine Item (table 2), which is a well-validated instrument [40,41]. In addition to quantifying the severity of depression and tracking improvement over time, the scale educates patients about the clinical features of depression so that patients can learn to recognize them on their own. Additional information about using scales to monitor treatment of depressed patients is discussed separately. (See "Using scales to monitor symptoms and treat depression (measurement based care)", section on 'Self-report scales in the public domain'.)

- **Activities** – Patients typically record their activities and mood in daily logs to help draw a connection between the two. The logs can also identify patterns of avoidance and withdrawal [3]. As an example, patients may avoid finding a more satisfying job, managing debt, or thinking about distressing events and feelings (eg, grieving about losses). In addition, patients may withdraw from interpersonal relationships. Ongoing monitoring of

activities continually guide clinicians in prescribing specific interventions. Monitoring of activities is discussed in detail elsewhere in this topic. (See 'General measures' below.)

ADMINISTERING TREATMENT

Behavioral activation is based upon the premise that patients with unipolar major depression can improve by re-engaging with positive environmental stimuli, improving problem solving, and reducing avoidance behavior [1-3,18,24,42]. The therapy makes use of specific interventions that include:

- Setting goals
- Self-monitoring
- Identifying depressive behaviors (eg, not working or maintaining social relationships)
- Analyzing triggers (antecedents) and consequences of depressive behaviors
- Structuring and scheduling daily activities consistent with one's goals
- Problem solving
- Establishing routines
- Developing behavioral alternatives to rumination

Format — The format of behavioral activation, including the frequency of sessions and duration of treatment, are guided by the severity of the depressive syndrome and the patient's progress. More severe depression may require more frequent contact at the outset of treatment (eg, two sessions/week) to encourage activation and troubleshoot barriers. In addition, telephone contact between sessions is often useful.

Behavioral activation is administered over a prespecified number of sessions, typically as an individual (face-to-face) or group treatment, in person or via telemedicine. Individual treatment generally consists of 8 to 24 weekly sessions that each last 50 minutes [3,43]; a review of 25 studies found that the median number of sessions was eight [21]. When deemed necessary, limits on the number of sessions are renegotiated. The majority of studies on group behavioral activation for acute depression have utilized the Coping with Depression psychoeducational course, which consists of 12 two-hour sessions delivered over eight weeks [1]. The Coping with Depression course has also been adapted for preventing depression in euthymic patients, who receive eight sessions [44].

Self-guided and digital formats are also available for providing behavioral activation, including guided self-help [19]; online, internet-based programs [26,27]; and smartphone applications [45]. Although these formats require little or no clinician support, high-quality evidence that

these formats are beneficial is limited. By contrast, multiple randomized trials support delivery of the therapy by nonspecialists, including lay counselors or community health workers [24,46-48].

The endpoint of therapy is determined by remission of depression and demonstration of a clear plan for preventing relapse by implementing what was learned in treatment. Booster sessions following the end of acute treatment are often provided. (See 'Termination' below and 'Booster sessions' below.)

General measures — Several general principles and actions underlie behavioral activation.

Treatment with behavioral activation begins by presenting the behavioral model of depression in straightforward language that is relatively free of jargon [1]. It is explained that behavioral activation emphasizes the importance of understanding depression in context and identifying antecedent factors or events that may have occurred in the patient's life to trigger depression (see 'Theoretical foundation' above). In addition, clinicians explain that the therapy is based upon the premise that patients can improve by re-engaging with positive environmental stimuli and reducing avoidance behavior [3,24]. Providing a rationale for treatment is intended to motivate patients to attend scheduled visits and complete homework assignments.

The next step in treatment consists of a functional analysis of the patient's depressive behaviors (eg, not going to work or chronic conflicts with one's partner) [2]. This process is guided by the patient's self-monitoring of activity and mood and reviewing the results during therapy sessions. Together, the clinician and patient work to elucidate the context (situation) in which the behavior occurs and the effects of the behavior. The "ABCs" of the functional analysis are the antecedents, behavior, and consequences.

The course of treatment in behavioral activation is guided by the behavioral model and varies for each patient in an idiographic manner [2,18]. The model is customized to fit each patient's specific experience of depression and goals for change; nevertheless, there are common structural, stylistic, and assessment elements, and common activation interventions that are used for all patients. Although these common elements and interventions are discussed as separate categories, each informs the others in an inextricable fashion throughout a course of behavioral activation.

The rest of this section discusses the structural, stylistic, and assessment elements of behavioral activation; specific activation interventions are discussed in a separate section. (See 'Specific activation interventions' below.)

- **Structural elements** – Every visit is structured at the outset with two primary tasks [2]:

- Checking on progress since the last session
- Setting an agenda with the patient to guide the current session

As noted elsewhere (see 'Assessment and monitoring' above), self-report measures of depression severity are often used to monitor session-by-session progress. The agenda is constructed to identify specific target problems and to concentrate upon activation. Behavioral activation is action-oriented, and a major focus of each session is to review activation homework assignments that patients performed since the last session and to plan assignments for the time period prior to the next session.

- **Stylistic elements** – Stylistically, clinicians take a collaborative approach by soliciting and responding to the patient's experiences and feedback, and working with patients to move forward as a team [2]. Patients with depression may feel helpless and hopeless about change; by collaborating with patients, clinicians can instill a sense of control and agency with regard to changing behavior and thus mood.

  The clinician is also nonjudgmental, even when challenges arise, such as difficulty completing homework or attending sessions regularly. Therapists address such challenges in a direct and matter-of-fact manner and seek to understand the patient's barriers and validate the patient's experience. The therapist also responds with warmth and encouragement, acknowledging even small accomplishments on the part of patients and supporting their continued activation, especially in the face of obstacles.

- **Assessment** – Within the context of structural and stylistic elements, interventions are guided by a continuous process of assessment [49]. Initial sessions focus on presenting the behavioral model of depression and examining with patients the degree of congruence of the model with their experiences and goals for treatment. This discussion helps elucidate what specific behaviors or contexts are maintaining depression and what behaviors are good candidates for change.

  In addition, activity monitoring is used to identify behaviors that maintain depression and are targets for treatment [2,18]. By the end of the first or second session, patients are asked to briefly record their activities and mood for specified time blocks (eg, each hour of the day) in daily logs. Monitoring helps to identify links between what patients do and how they feel, and links between specific settings or contexts and mood. The logs can also identify patterns of avoidance and withdrawal [3]. As an example, the logs may reveal that one avoids finding a more satisfying job, managing debt, or thinking about distressing events and feelings (eg, grieving about losses), and that one has withdrawn from interpersonal relationships. Treatment aims to reverse the downward spiral that is often

established between reduced activity (withdrawal and avoidance) and the symptoms of depression (table 1).

Ongoing monitoring of activities continually guide clinicians and patients in identifying the ingredients of an effective, personally tailored "behavioral antidepressant." Specific behaviors and contexts that are linked strongly to mood become the focus of activation interventions. These may include activities that improve mood, such as exercise, social interaction, and leisure pursuits. In addition, monitoring can identify activities that patients need to decrease to improve mood. As an example, patients may engage in ruminative thinking, which is targeted as an "internal" or "covert" activity that needs to be reduced. Patients are asked to monitor both observable activities such as working on one's computer and cooking for one's family, as well as the degree to which one is ruminating while participating in such activities. By assessing the context in which rumination occurs and the consequences of rumination (typically exacerbated depressive symptoms), the patient and therapist may choose to focus on interventions to decrease rumination.

Self-report instruments (eg, Pleasant Events Schedule, Unpleasant Events Schedule, and Interpersonal Events Schedule) are available to assess the frequency of pleasant, unpleasant, and interpersonal events [49]. However, these tools are burdensome and seldom used in routine clinical practice and are reserved for specialized evaluation and treatment and for research settings.

Specific activation interventions — Once treatment targets are selected (see 'General measures' above), clinicians utilize a set of specific activation interventions in a flexible and repeated fashion until improvements in mood and life problems are achieved [2,3,18,24,42]:

- **Brainstorming, evaluating, and selecting activities** to:
  - **Increase pleasure or mastery** – Clinicians collaborate with patients to develop a list of potential activities to increase pleasure or mastery. As an example, the therapist and patient may explore options such as reading, going to the movies, taking an exercise class, or shopping for new garden plants. The options are generated from activity monitoring and identifying activities linked to improved mood, as well as considering activities that have been helpful in the patient's past. Some behavioral activation protocols also guide patients in identifying values to elicit activities that may improve mood. In addition, clinicians may suggest activities based on knowledge of the patient or general knowledge. From this tentative list, they then evaluate the pros and cons of each option and select one for developing an action plan.

Over the course of treatment with behavioral activation, clinicians guide patients toward activities related to mastery, as well as activities that increase pleasure. Increasing mastery leads to a sense of self efficacy, which characterizes successful psychotherapies [50].

The choice of an activity needs to take into account the patient's current clinical status, including energy level and feelings of hopelessness. Relatively simple tasks that are readily achieved are selected early in treatment, followed by increasingly more difficult activities. This hierarchy of increasingly challenging tasks is referred to as a graded task assignment.

Patients who are depressed may take the position that they will pursue activities to increase pleasure or mastery after their depressive symptoms remit (eg, "I just don't feel like it now, but I will once I get better"). The clinician's response is that the process is just the opposite; creating action plans that structure and schedule activities, despite lack of interest or energy, can help patients improve. In behavioral activation, this is often referred to as acting from the "outside in" (guided by goals) rather than the more habitual pattern of acting from the "inside out" (guided by emotions or energy).

Patients also may have difficulty choosing a specific activity, or may find reasons to not pursue any activity from a list of activities that have been generated. Clinicians can explain that activity scheduling is an experiment intended to determine the extent to which an activity is beneficial. Performing an activity is more important than predetermining which activity is the "right one."

- **Increase approach behavior and decrease avoidance behavior** – These activities function in parallel to those intended to increase pleasure and mastery, but are focused upon problems that the patient has avoided. Problem areas may include social isolation, complicated interpersonal relationships, family conflicts, losses that require grieving, employment or finding a new job, and managing bills and debt. Therapists guide patients to take systematic steps to solve problems by defining the problem, generating possible solutions, weighing the pros and cons of each, identifying one or more to implement, and then assessing the outcome. These steps counter the tendency to avoid, which is often common in depression.

- **Establish routines** – Establishing or re-establishing routines is helpful on two accounts. First, patients who have disrupted basic life routines such as eating, sleeping, and physical activity may benefit from a systematic focus on regularizing such routines through incremental changes to ensure that they are eating regular meals, getting

adequate sleep, and obtaining some physical activity. Second, as patients develop new pleasure, mastery, or approach activities, it can help to focus on how to make such activities "automatic" (habitual) over time. As an example, patients who have been socially isolated may benefit from making the activity of returning phone calls or e-mails a regular part of each day (see "Scheduling activities" below).

- **Structuring activities** – After the therapist and patient have identified a specific activity, the activity is structured (designed) to ensure that the assignment is feasible and to maximize the chances of success, given the patient's current level of motivation, energy, concentration, and resources. Activities are "broken down" into their constituent elements and sequenced to facilitate getting started and completing the activity. As an example, the activity of purchasing new garden plants may initially overwhelm a depressed patient, even though it may have been something that brought pleasure in the past. The first step may be looking up possible garden stores on the internet, followed by making a list of desirable plants, and deciding how many plants to purchase.

- **Scheduling activities** – It is useful for many patients to select a particular day and time during which action plans will be implemented between sessions. The level of specificity of scheduling is governed by what is most likely to support the patient in completing the action plan. Some patients benefit from highly specific schedules (eg, take a walk on Monday, Wednesday, and Friday mornings at 9 AM or talk with my boss on Tuesday at 4 PM), whereas more general plans, such as take a walk three times in the coming week, will be sufficient for others. Finding the most effective level of specificity may require some trial and error.

- **Using contingencies for motivation** – Patients often benefit from using contingencies for motivation to complete homework assignments between sessions by structuring their environments to support taking action. As an example, patients may self-administer a prespecified reward for completing a week's worth of activation assignments.

  In addition, making public commitments with friends or family can help patients to take action. Examples include telling a spouse about the plan to talk with the boss on Tuesday afternoon, and engaging friends or family in facilitating actions by doing them with the patient (eg, coming over in the morning to take the walks together). Patients can be encouraged to call friends or family by phone during therapy sessions if this helps ensure that such contingencies are in place and utilized.

- **Teaching skills for prescribed activities** – Some patients lack the skills needed to effectively take action and thus require training. As an example, patients who struggle

with interpersonal conflict may benefit from learning assertive communication skills (social skills) to express and negotiate their needs. Other patients with comorbid anxiety may benefit from relaxation training. (See "Generalized anxiety disorder in adults: Cognitive-behavioral therapy and other psychotherapies", section on 'Relaxation training'.)

- **Practicing new activities in session** – We suggest practicing new behaviors in treatment sessions if it is possible to do so within the confines of the office or inpatient unit. As an example, in helping patients learn assertive communication skills, it is useful to role play with patients, first demonstrating (modeling) the use of such skills and then reversing roles and asking the patient to practice them so that corrective feedback and encouragement can be provided.

- **Teaching alternative behaviors to decrease rumination** – For highly ruminative patients, it is often necessary to teach alternative behaviors that will interrupt or counteract the mental activity of rumination. Therapists can instruct patients on how to focus upon the immediate sensory aspects of experience (eg, sights, sounds, and smells) or suggest alternative distraction activities (eg, singing with loud music or walking briskly outside) as a way of interrupting ruminative thinking. In addition, helping patients understand the ways in which rumination is an action that maintains the cycle of depression can help increase awareness of ruminative thoughts and motivation to practice alternatives. Clinicians emphasize the context in which rumination occurs and its consequences rather than the thought content.

Frequently, sessions involve repeated application of the above strategies, with a focus upon highlighting improvements and troubleshooting barriers in order to develop more effective action plans for the subsequent session.

The interventions described in this section constitute the version of behavioral activation that we use for treating unipolar major depression [2]. Although other variants of behavioral activation have been developed, each of the different versions use many of the same interventions, including activity monitoring and activity scheduling [1,18,43,49].

Termination — Treatment concludes with sessions (eg, one to three) that focus upon summarizing and consolidating gains for the purposes of relapse prevention [1,2]:

- Reviewing the patient's progress and persistent problems.

- Identifying the activities that were helpful throughout treatment ("the ingredients of the behavioral antidepressant").

- Strengthening healthy routines and habits.
- Discussing the patient's goals following treatment as a prelude to expanding activation to other contexts, such as employment, financial status, interpersonal relationships, recreation, and education.
- Identifying potentially high-risk, future situations (eg, losing one's job) that may trigger relapse and preparing an action plan.
- Differentiating "slips" or lapses in pursuing rewarding activities, from full-blown relapses of depression. With the therapist's support, the patient prepares an action plan that includes activities to do following lapses, which are common, to prevent lapses from becoming relapses.

Booster sessions — Patients should be given the option of follow-up "booster" sessions once they have completed a successful course of treatment [2,24]. As an example, an initial booster session can be scheduled one to three months later and if they report they are doing well, another one six months after that. By contrast, patients who are struggling may need to be seen more frequently. Booster sessions focus upon reinforcing gains and solving new problems.

Nonadherence — Nonadherence can occur in behavioral activation, as with any treatment. Various factors need to be evaluated to deal effectively with lack of follow through in completing homework assignments:

- Were the activities clearly outlined?
- Were the tasks appropriate to the patient's capabilities and schedule?
- Did the patient agree to the assignments?
- Did the activities address identified problems?
- Were the activities informed by the patient's monitoring or linked to patient goals or values?
- Was the patient motivated and committed to the treatment process?

The activities should be renegotiated if nonadherence is related mainly to task assignment and allocation issues.

The patient should be given the choice of reengaging in or terminating treatment if nonadherence is related to lack of motivation to change, provided the depressed patient is not at acute risk. Patients that terminate treatment should be allowed to return when they are ready to participate more actively.

Nonresponders — Behavioral activation is time limited (eg, 8 to 16 sessions); thus, patients generally receive a full course of therapy, regardless if nonresponse persists through the middle phases of treatment. Alternative treatments should be prescribed for patients who do not respond to a full course of treatment. (See "Unipolar depression in adults: Choosing treatment for resistant depression".)

EFFICACY OF BEHAVIORAL ACTIVATION

Behavioral activation has demonstrated efficacy for unipolar major depression in meta-analyses of randomized trials. However, meta-analyses appear to overestimate the clinical benefit of nearly all types of psychotherapy in treating depression [51-53]. These inflated effects may be due to low-quality studies and publication bias.

Compared with waiting lists or usual care — Based upon several meta-analyses of randomized trials, behavioral activation can effectively treat unipolar major depression [8,54-56]. As an example, a meta-analysis of 25 randomized trials (n >1000 patients) compared behavioral activation with control conditions (eg, waiting list or usual care) for improvement of depression, and found a significant, clinically moderate to large effect favoring behavioral activation [21]. In one of the trials, which compared behavioral activation with usual care in 47 patients, behavioral activation was administered by psychiatric nurses with no prior training or experience in providing psychotherapy [22]. Response (reduction of baseline symptoms ≥50 percent) occurred in more patients who received active treatment than usual care (48 versus 17 percent).

Long-term benefit — The benefit of behavioral activation for unipolar major depression persists after patients finish acute treatment:

- A meta-analysis of five randomized trials (n = 273 patients) compared behavioral activation with control conditions (eg, waiting list or usual care) and found that during follow-up lasting six to nine months, depressive symptoms were significantly lower with behavioral activation, and the magnitude of the benefit was small to moderate [21].

- Other randomized trials (not included in the meta-analysis) also indicate that behavioral activation provides enduring benefits for patients with respect to relapse prevention for up to two years after treatment termination [47,57,58]. As an example, a prospective study followed patients (n = 55) who responded to acute (16 weeks), randomly assigned treatment with behavioral activation (maximum 24 sessions) or paroxetine (maximum daily dose 50 mg) [59]. Paroxetine was continued for one year, and during this first year of

follow-up, the estimated rate of relapse for prior behavioral activation and continuation pharmacotherapy was nearly identical (50 and 53 percent of patients). Paroxetine was discontinued at the beginning of the second year of follow-up; during this second year, the estimated rate of recurrence was two times greater for prior paroxetine than prior behavioral activation (52 and 26 percent).

Compared with other psychotherapies — Meta-analyses of randomized trials in patients with unipolar major depression that compared behavioral activation with other psychotherapies, such as cognitive-behavioral therapy (CBT) and interpersonal psychotherapy, generally suggest that the benefits are comparable. (See "Unipolar major depression in adults: Choosing initial treatment", section on 'Selecting a specific psychotherapy'.)

Nevertheless, behavioral activation may be preferable to other psychotherapies because it is less complex, readily understood by patients and clinicians, does not require intensive training, can be administered by nonspecialists, and is time limited and cost effective [60]. As an example, a 16-week, open-label, randomized noninferiority trial compared behavioral activation with CBT for patients with unipolar major depression (n = 364) [24]. Both groups received 20 individual sessions. Behavioral activation was administered by mental health workers with no prior formal training in psychotherapy, whereas CBT was administered by psychologists. Response (reduction of baseline symptoms ≥50 percent) at 12 months was nearly identical for patients who received behavioral activation or CBT (61 and 62 percent). In addition, improvement of physical and psychosocial functioning and comorbid anxiety was comparable for the two groups. However, costs were lower with behavioral activation than CBT. In addition, other studies indicate that administration of behavioral activation by either nonspecialist or specialist therapists provides a comparable benefit [21].

Compared with antidepressants — Randomized trials in patients with unipolar major depression suggest that behavioral activation may perhaps be more effective than antidepressants. A meta-analysis of four randomized trials (n = 283 patients) compared behavioral activation with antidepressants and found a trend suggesting that improvement of depression was modestly to moderately greater with behavioral activation [21].

SOCIETY GUIDELINE LINKS

Links to society and government-sponsored guidelines from selected countries and regions around the world are provided separately. (See "Society guideline links: Depressive disorders".)

SUMMARY

- Behavioral activation is one of many treatments available for treating unipolar major depression. (See 'Introduction' above and "Unipolar major depression in adults: Choosing initial treatment" and "Unipolar depression in adults: Choosing treatment for resistant depression".)

- Behavioral activation is indicated for unipolar major depression, including adult, adolescent, and geriatric patients; primary care patients; hospitalized patients; Spanish-speaking patients; and pregnant and postpartum patients. (See 'Indications' above.)

- The only contraindications to behavioral activation are lack of either motivation or cognitive capacity to participate in treatment and complete assigned activities. Nevertheless, many studies have excluded patients who required another primary treatment, including patients with psychotic disorders; eating disorders; antisocial, borderline, or schizotypal personality disorder; and high risk of suicide. (See 'Contraindications' above.)

- Candidates for behavioral activation are assessed to establish the diagnosis of unipolar major depression (table 1). In addition, the patient's progress is monitored by assessing the severity of symptoms with a self-report depression rating scale at the outset of treatment and prior to the beginning of each subsequent session. We suggest the Patient Health Questionnaire – Nine Item (table 2). Patients also record their activities and mood in daily logs. (See 'Assessment and monitoring' above.)

- Behavioral activation is based upon the premise that patients with unipolar major depression can improve by re-engaging with positive environmental stimuli and reducing avoidance behavior. The therapy makes use of interventions that include identifying depressive behaviors, analyzing triggers and consequences of depressive behaviors, setting goals, self-monitoring, structuring and scheduling daily activities consistent with one's goals, problem solving, establishing routines, and developing behavioral alternatives to rumination. (See 'Administering treatment' above.)

- Behavioral activation has demonstrated efficacy for unipolar major depression, and the benefit persists after patients finish acute treatment. Studies that compared behavioral activation with other psychotherapies generally suggest that the outcomes are comparable. However, behavioral activation may be preferable to other psychotherapies because it is less complex, readily understood by patients and clinicians, does not require

intensive training, can be administered by nonspecialists, and is time limited and cost effective. (See 'Efficacy of behavioral activation' above.)

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