Optimal treatment for depressed adult patients in primary care

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Optimal Treatment for Depressed Adult Patients in Primary Care

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Introduction

The lifetime risk for a major depressive disorder in the population is between 10%-25% (American Psychological Association, 2000). As many as 80% of depressed patients seek treatment at a primary care level (Allwood & Gagino, 1997). Benefits of seeking treatment from a primary care provider may include the following:

- Provider may have insight about the demographics of the neighborhood in which the patient lives.
- Provider who treats family members of the patient may have additional insight on the patient-family interaction in the home setting.
- Provider may have an advantage in early detection of symptoms and observing progression of the depressive state via multiple office visits for other symptoms or disease management.
- Provider’s office is often close to a patient’s home, allowing the patient easier access to treatment.

In contrast to the benefits of being treated by a primary care provider, disadvantages exist. The primary care provider has limited office time to make a diagnosis and develop a treatment plan. The primary care provider may not be as fully trained in differential diagnosis and complicated treatment regimens.

Each primary care clinic has its own treatment guideline for treating depression. Furthermore, a provider may also have his or her own treatment preference in treating a patient with depression. Antidepressants as an independent treatment modality may provide some symptomatic relief; however, it may not be the optimal treatment for the patient. Treatment methods for depressed patients can comprise pharmacotherapy,
psychotherapy, or a combination of both. With the various treatment options, it is important to have more clearly understood guidelines to provide optimal care for a depressed patient seen by a primary care provider. Research has tested various models for the usage of pharmacotherapy and psychotherapy in treating adult depressed patients. What is not clearly understood is the optimal method to treat an adult depressed patient seen in the primary care setting.

This review is subdivided into four parts. The first part examines the use of pharmacotherapy as an independent treatment modality in treating adult depression. The second part reviews literature involving psychotherapy as an independent treatment modality. Medications currently prescribed by practitioners and psychotherapy performed by specialists and clinical practitioners for depressed adult patients are discussed in parts one and two. The third part evaluates a combination of pharmacotherapy and psychotherapy in the treatment of adult depression. The fourth part encompasses treatment recommendations for primary care clinics. Part four also includes training practitioners and selected staff members within the clinics to provide more effective treatment for depressed adult patients.
Definitions

Depression is defined by two main institutions, the American Psychiatric Association’s Diagnostic and Statistical Manual IV (DSM-IV-TR) text revision (Table 1), and the World Health Organization’s International Classification of Diseases (ICD-10) (Table 2). Mood disorders with depression as a primary focus, according to the DSM-IV-TR, comprises three broad categories, Major Depressive Disorders (MDD), Dysthymic Disorder, and Depressive Disorder Not Otherwise Specified (NOS). A depressive episode is defined as five or more symptoms during a two-week period with at least one symptom either being a depressed mood or a loss of pleasure or interest. Presenting symptoms may include depressed mood, diminished interest, weight loss, insomnia or hypersomnia, restlessness or sluggishness, fatigue, feelings of inappropriate guilt, inability to concentrate, and/or recurrent thoughts of suicide. A MDD is characterized by one or more depressive episodes. Dysthymia is characterized by depressed moods for most days over a minimum period of two years. The DSM-IV-TR also contains a research diagnostic criterion for minor depression as a separate mental disorder from depressive disorder NOS. This definition of minor depression is available for research purposes (Feldman, Robbins, & Jaffe, 1998).

The ICD-10 classifies depression into three areas: Depressive episode, recurrent depressive disorder, and persistent mood [affective] disorders. In addition to the institutional definitions, chronic major depression has also been used to identify a depressed patient with a depressive episode lasting two years or greater (Arnow & Constantino, 2003). Depression is also part of the bipolar disorders, which will not be discussed in this review.
Psychotherapeutic treatments may include Cognitive-Behavioral Therapy (CBT), Interpersonal Behavioral Therapy (IPT), Psychodynamic Therapy, or group therapy. CBT involves identifying negatively biased thoughts and altering the cognitive distortions. IPT involves helping the patient identify and understand interpersonal problems and conflicts. The focus of IPT is to develop adaptive ways in interacting with others. Psychodynamic therapy considers the present depressive disturbances. This therapy helps the depressed patient gain insight on the disorder and to understand the defense mechanism used in response to a situation. Group therapy involves the treatment of more than one person simultaneously in the same session. Self help or psychodynamic therapy may be incorporated into group therapy. Furthermore, in group therapy, a patient is able to interact with others who may experience the same feelings as he or she does. The interactions may benefit the patient by allowing the patient to recognize that he or she is not the only person in the world with this problem.

Pharmacotherapeutic treatment involves the usage of prescription medications to attain remission of depressive symptoms or disorders. Monotherapy involves using a single drug. Dual or combination therapy involves using either two or more drugs or the incorporation of psychotherapy and pharmacotherapy. Full remission occurs when the patient no longer meets the full diagnostic criteria for a depressive episode. Partial remission is defined as a patient retaining some symptoms post treatment but no longer meeting full diagnostic criteria for a depressive episode.
Pharmacological Treatments

Pharmacotherapy has become the mainstay of treatment for depression in primary care clinics. Tri-cyclic antidepressants (TCA), monoamine oxidase inhibitors (MAOI), selective serotonin reuptake inhibitors (SSRI), serotonin-norepinephrine reuptake inhibitors, serotonin transport blocker and antagonist, and atypical agents such as bupropion or amoxapine are among some of the medications used to treat depression (Kay, Tasman, & Lieberman, 2000). These antidepressants have been shown to be effective in treating depression; however, the degree of effectiveness varies based on the dosage, patient compliance, and type of depression.

One of the original placebo-control studies on the effectiveness of pharmacotherapy versus psychotherapy in treating depression was performed by the National Institute of Mental Health in 1989: the Treatment of Depression Collaborative Research Program (TDCRP). The study involved a total of 239 subjects who met inclusion criteria and fully completed the research study. Although the study was performed over a decade ago, it provided a catalyst to research comparing pharmacotherapy and psychotherapy treatment methods. In contrast to published studies prior to the TDCRP, the TDCRP published results stating CBT was equivalent to a placebo, and pharmacotherapy with imipramie (serotonin and norepinephrine reuptake inhibitor) was the most successful treatment for depression (Elkin, Shea, Watkins, Imber, Sotsky, Collins, et al., 1989).

Currently, SSRIs as the choice of treatment for depression has become overwhelmingly popular in the primary care settings. In family practices, over 93% of depressed patients are prescribed antidepressants with greater than 50% being given
Adverse effects of SSRIs may include anxiety, drowsiness, weight loss, headache, insomnia, nervousness, and sexual dysfunction. SSRIs do not have TCA side effects of blurry vision, dry mouth, hypotension, and cardiac arrhythmias (Dipiro, Talbert, Yee, Matzke, Wells, & Posey, 1997). Additional benefits of SSRIs include lower toxic effects in overdose situations (Gram, 1995). These characteristics can make the drug more appealing as a treatment of choice for a primary care provider (PCP) to prescribe.

With various brands of SSRIs available in the market, a study (n=546) was performed to compare the effectiveness of fluoxetine, paroxetine, and sertraline in the primary care setting (Kroenke, et al., 2001). The majority (~ >75%) of the subjects were white females in their mid 40s with major depression. Depression and psychological measurements were obtained at baseline, three, and nine months. Subjects on SSRIs showed a reduction from the baseline in number of DSM-IV depressive symptoms at three and nine months. The baseline percentage of DSM-IV depressive symptoms was 74%. At the three and nine month post initial treatment intervals, depressive symptoms were observed to be 32% and 26% respectively. The results showed all three SSRIs to be equally effective in treating depression. The study also revealed 40% of subjects either switched to a different antidepressant or to have independently discontinued taking the drug. The majority of those who discontinued or switched the medication did so because of drug adverse effects. Less common reasons for stopping the medication included embarrassment about taking antidepressants and patient complaints of SSRI ineffectiveness. The number of patients who discontinued or switched medication did not differ among the three SSRIs in the study. Specific attrition rates were not provided.
in the article. In all, patients who may not tolerate one type of SSRI can replace it with a different SSRI and still have continuous effective treatment.

In a review by MacGillivray et al. (2003), the efficacy and tolerability of TCAs and SSRIs were compared. Their analysis of eleven studies (n=2951) showed both TCAs and SSRIs prescribed by PCPs to have similar efficacies in the treatment of depression. The analysis further showed patients on TCAs (27.9%) to have higher withdrawal from treatment than patients on SSRIs (20.7%). Patients withdrew specifically because of side effects of TCAs. Montgomery, Huusom, and Bothmer (2004) conducted an eight week, randomized, double blind study (n=249) comparing Escitalopram, a SSRI, to Venlafaxine XR, a serotonin/norepinephrine reuptake inhibitor. Patients on the SSRI responded 4.6 days faster and had a higher proportion of sustained remission than patients on serotonin/norepinephrine reuptake inhibitors.

In addition to SSRIs and TCAs, nefazodone (triazolopyridine) has shown to be an effective and well-tolerated treatment for patients with MDD (Gelenberg et al., 2003). When compared against placebo, somnolence was the most notable adverse effect of nefazodone. Discontinuation drug therapy rates in patients on nefazodone were equivalent to placebo discontinuation rates, 5.3% and 4.8% respectively. The outcome of the one year trial showed lower probability of depressive symptom recurrence rates for subjects on nefazodone (30.4%) than subjects on placebo (45.8%).

Pharmacotherapy has also been shown to reduce depressive symptoms in patients with dysthymia. Lima and Moncrieff (2000) conducted an analysis of 15 independent trials determining the efficacies of pharmacotherapy against placebos for patients with dysthymia. They concluded TCAs, SSRIs, MAOIs, and other drugs
(sulpiride, amineptine, and ritanserin) to have no differences in the efficacy for the treatment of patients with dysthymia. There were also no differences seen within the classes of the drugs. Furthermore, the decision to select one drug over another is more dependent on the provider choice and patient adverse effect responses to the medication and dosage. Kripke’s (2004) research on treatment options for dysthymia further supports the use of TCA and SSRI.

Although few in number, research exist that contradicts research supporting the efficacy of pharmacotherapy. Moncrieff, Wessely, and Hardy (2004) found TCAs to be only slightly better than active placebos. An active placebo is a placebo pill that mimics the adverse side effects of TCAs. The introduction of an active placebo into a study reduces the possibility of research participants’ group identification (placebo group or drug group). Patient responses to SSRIs, prescribed by PCPs, were studied by Corey-Lisle, Nash, Stang, and Swindle (2004). A total of 482 patients participated in a six month study. The Symptom Checklist-20 (SCL) evaluation was used to classify the patients into three categories; non-responders (n=221), partial responders (n=152), and remitters (n=109). The results showed that substantial numbers (46%) of depressed patients who were adequately treated remained unresponsive to SSRIs. Furthermore, 32% were partial responders and only 23% were considered in remission by the sixth month. Although negative findings have been reported with TCAs or SSRIs, an overwhelming amount of research supports the use of TCAs and SSRIs in treating depressed adult patients. Thus, pharmacotherapy alone is an effective treatment modality for depression.
Non-Pharmacological Treatments

Aside from pharmacological treatment options, non-pharmacological treatment for an adult who suffers from a depressive disorder can be provided by a counselor, a private mental health care specialist (psychologist or psychiatrist), or a primary care practitioner. The treatment used for a patient can vary depending upon the provider type and credentials. Providers who treat more patients with depression will have more experience with treating depression. Currently, a primary care provider’s knowledge about treating depression is obtained from continuing medical education, drug companies, inter-collegial communications, and collaborations with mental health care specialists. In the primary care practice, the practitioner’s treatment for a patient was based more upon his or her personal and work experiences then the information taught during formal educational schooling (Andersson, Lindberg, & Troein, 2002). Furthermore, treatment plans prescribed to patients were based upon a provider’s treatment preference, not financial incentives (Strum & Wells, 1998). In addition to the treatment provided by the practitioner, psychotherapy guidelines in a primary care setting may differ from specialty care guidelines. Depressed patients generally do not receive regular follow up contact after their office visits to the primary care facilities (Rost, Nutting, Jeffrey, Elliott, & Dickinson, 2002). Research has supported that patients seen by a psychiatrist receive more psychotherapy and pharmacotherapy than patients treated by a non-psychiatric provider. It was revealed that 90% of patients diagnosed by a psychiatrist, 54% seen by a non-physician mental health specialist, and 35% of primary care patients received a minimum of one psychotherapy session. Furthermore, treatment programs provided by a psychiatrist were less likely to fail
compared to treatment programs provided by a primary care provider (Powers, Kniesner, & Croghan, 2002). One must consider that the patients’ time commitment to psychotherapy sessions is much greater than swallowing a pill once or twice a day. In addition to patient time commitment, more time is required of practitioners to provide the psychotherapy sessions. Thus, the commitment time may be an explanation to the decreased popularity of psychotherapy sessions in the primary care clinics.

In a recent review, patient treatment preferences between psychotherapy and pharmacotherapy were analyzed (van Schaik et al., 2004). The authors reviewed eight independent studies involving treatment preferences of depressed primary care patients. Interestingly, they found patients across all studies to prefer non-pharmacological therapy over pharmacological therapy. The percentage difference favoring non-pharmacological therapy from pharmacological therapy spans from 13% in one study to 38% in another study. The authors also reviewed 10 independent studies involving treatment preferences in non-depressed populations. Across all non-depressed patient studies, 32% to 98% of non-depressed people preferred psychotherapy over pharmacotherapy. Therefore, the majority of the patient populations were found to prefer psychotherapy over pharmacotherapy. Patient preference may also influence the PCP’s decision on treatment method. Approximately 60% of patients with depression treated by PCPs claim to have had a part in considering treatment options and making the decision (Schwenk, Evans, Laden, & Lewis, 2004).

There has been much debate about the published results from the TDCRP, the 1989 study that claimed psychotherapy to be equivalent to placebo. Jacobson and
Hollon (1996) disputed the TDCRP psychotherapy outcomes stating that there were methodological differences between the tested sites. They also stated that existing imipramine drug research was not consistent with the results produced from the TDCRP. In opposition to the TDCRP, Hollon, Shelton, and Davis (1993) wrote a review on cognitive therapy for depression. In their review, they found two studies showing CBT to be equivalent to pharmacotherapy. They also found studies showing that the percentage of relapse was lower with CBT. In a reanalysis of the TDCRP data, Agosti and Ocepek (1997) determined that both CBT and drug therapy were efficacious at treating depression. Numerous studies have been performed since the TDCRP supporting the efficacy of psychotherapy and pharmacotherapy. In all, psychotherapy should be considered as a treatment option for treating adult depression.

With psychotherapy shown to be effective, studies incorporating psychotherapy sessions into the primary care settings have been researched. A comparison in treatment outcomes between usual care and minimal contact psychotherapy in sub-threshold depressed patients were analyzed with 216 subjects (Willemse, Smit, Cuijpers, & Tiemens, 2004). More than 66% of the subjects were married females in their 40s. Minimal contact psychotherapy intervention entails PCP’s providing a self-help manual and instructions on mood management skills. Non-psychotherapeutic self-help manual question and answer telephone calls were made weekly for 5 weeks to support subjects working through the manual. A sixth telephone call was made 2 months post-initial office visit. The study also found that men, when compared to women, were less likely to have completed the intervention program. In all, the outcome of the study showed sub-threshold depressed primary care patients to have a
reduced incidence of MDD when minimal contact psychotherapy was incorporated into treatment.

Although PCPs have limited office time with patients, brief psychotherapy sessions have been incorporated into some clinical treatment plans. King et al. (2002) studied the effectiveness of training PCPs to perform brief CBT. The brief CBT training, consisting of four half days, was an effort to increase the PCPs ability to identify and treat depression. The study entailed a randomized controlled trial with 84 general practitioners and 272 patients. PCP training was targeted towards increasing professional ease, positive attitudes, and skills in brief CBT. Patient follow up occurred at three and six months post initial appointment. The outcome of the research showed basic training in brief CBT workshops to have little impact on the PCPs ability to identify or improve the treatment of depression. The authors’ further concluded that basic brief CBT training was insufficient and additional training would be needed in order for PCP to deliver effective CBT.

Ward et al. (2000) conducted a randomized controlled trial (n=464) comparing the outcome of non-directive counseling, CBT, and usual general practitioner care. Non-directive counseling consisted of qualified counselors; CBT was provided by qualified clinical psychologists; and usual general practitioner care involved routine office discussions with patients and antidepressant medication prescriptions. Psychotherapy sessions were limited to a maximum of 12. The Beck Depression Inventory I (1967) was used to assess the outcome of the treatment. At the completion of 4 months, patients in the non-directive and CBT therapeutic groups yielded lower scores on the Beck depression inventory than patients in the usual general practitioner
care group. Lower scores represent fewer depressive symptoms. Although psychotherapy was superior to usual care at four months, there were no significant differences found at twelve months on the Beck depression inventory amongst the three groups. Although the outcome was the same at the end of twelve months, psychotherapy achieved remission of symptoms quicker than the usual care.
Combined Pharmacological and Non-Pharmacological Treatments

There is currently a growing amount of research in combined pharmacotherapy and psychotherapy for the treatment of depression. Researchers are seeking to discover the advantages and disadvantages of pharmacotherapy and psychotherapy each as independent modalities or as a combination of both therapies. Interest in this area affects not only patient outcome, but also costs and benefits of therapy. The ultimate goal of treating depression is to have complete remission of the depressive episodes. In the review by Hollon, Shelton, and Davis (1993), research supported relapse rates to be three times as great for a patient who does not complete his/her medication-therapeutic course. In a different study, combined therapy was shown to have remission rates 15% higher than psychotherapy alone (Jindal & Thase, 2003). As for the efficacy of treatment, there were no differences observed between psychotherapy and pharmacotherapy in treating severely depressed patients (DeRubeis, Gelfand, Tang, & Simons, 1999). A severely depressed patient was defined as a patient with MDD and a score of 20 or above on the Hamilton scale or 30 or above on the Beck Depression Inventory I. Both the Hamilton (1960) and Beck (1967) Depression Inventories are questionnaires used to aid in making a clinical diagnosis. In a study involving treatment of minor depression, it was supported that pharmacotherapy was slightly better than placebo (Feldman, Robbins, & Jaffe, 1998).

Browne et al. (2002) conducted a trial on the effectiveness and costs of Sertraline (SSRI), interpersonal psychotherapy (IPT), and combination Sertraline plus IPT in the treatment of primary care patients with dysthymia. The subjects (n=586) were randomized into three treatment groups; Sertraline (n=196), IPT (n=178), or
Sertraline plus IPT (n=212). Subjects in Sertraline and Sertraline plus IPT groups were prescribed medication throughout the two-year study. Subjects in the IPT completed the brief intensive IPT treatments by the sixth month. The Montgomery Asberg Depression Rating Scale (MADRS) (Montgomery & Ashberg, 1979; Montgomery et al., 1985) and the Social Adjustment Scale-self rating (SAS-SR) (Weissman et al., 1978) were used to evaluate the treatment outcomes at baseline, six months, and eighteen months. At six months, subjects in the Sertraline and Sertraline plus IPT groups demonstrated a higher treatment response rate. Respectively, 59.7% and 57.7% of subjects had a 40% reduction in the MADRS score. IPT alone yielded 46.6%. Reduction in the MADRS score represents a decrease in depressive symptoms. Two years post treatment, the results remained the same as the sixth month outcomes. In addition to assessing the symptoms, the researchers also compared the total costs of treatment, health care services, social services, and indirect costs. The treatment cost is for sertraline or IPT. Health care services costs consist of health professional care, other medications or supplies, and hospital care. Social services costs include unemployment, workers' compensation, family benefits, and welfare. Indirect costs are lost wages. From the SAS-SR results, the authors found sertraline plus IPT and sertraline alone to have equivalent total costs for use of treatment, health care services, social services, and indirect costs.

Keller et al. (2000) compared the treatment outcomes among nefazodone (triazolopyridine), cognitive behavioral-analysis system of psychotherapy (CBASP), and combined nefazodone plus CBASP. The study was an acute 12-week study evaluating treatment outcomes for chronic depression. CBASP is a combination of both cognitive
behavioral therapy and interpersonal therapy. Subjects (n=681) were diagnosed with chronic depression by the Structured Clinical Interview for Axis I DSM-IV Disorders. The Hamilton (1967) Rating Scale for Depression (HRSD) was given weekly to assess treatment progress. Remission was considered a HRSD score of less than eight by the 10th or 12th week. Subjects (n=220) on nefazodone alone were limited to 15 to 20 minutes office time. The time restraints limited possible psychotherapeutic interventions. Subjects (n=216) of the CBASP had bi-weekly sessions for the first four weeks, and weekly sessions thereafter until week 12. Subjects (n=227) in the combine nefazodone plus CBASP had the equivalent sessions as those in the CBASP group. The study showed nefazodone to have more rapid effects than psychotherapy in the initial four weeks; however, CBASP showed greater outcome effects during the latter half of the study. At the end of the 12 week study, efficacies of nefazodone alone (55%) and CBASP alone (52%) were approximately equal. The efficacy of combined nefazodone plus CBASP (85%) was superior to nefazodone or CBASP alone in treating chronically depressed patients.

In a retrospective analysis of the Keller et al. (2000) study, Nemeroff et al. (2003) studied the relationship between childhood trauma and treatment modality. Patients with childhood trauma benefited more from psychotherapy than pharmacotherapy. Childhood trauma included loss of parents at early age, physical or sexual abuse, or neglect. Although not defined by the authors, the childhood trauma may contribute to post traumatic stress disorders later in life. The outcome of their study showed combination therapy to be marginally superior to psychotherapy alone. Among patients with no childhood trauma, combination therapy was more superior to pharmacotherapy
or psychotherapy alone. The outcome of this research showed history of childhood trauma prior to depression to influence treatment modality outcomes. Practitioners should assess their patients for a history of trauma so that this knowledge can inform the treatment decision. Thus, when providing treatment options to depressed patients with childhood trauma, psychotherapy alone would be expected to be more effective than pharmacotherapy alone.

In a study by Petersen et al. (2004), patients who were in remission after a short term fluoxetine treatment (n=132) were randomized to a fixed dose of this antidepressant medication with or without continued CBT. Patients in the continued CBT group received psychotherapy sessions beyond the normal 12 to 16 weeks. The Attributional Style Questionnaire (ASQ) (Peterson et al., 1982) completed by patients at acute phase baseline, continuation phase baseline, and continuation phase endpoint were used to determine the effectiveness of continuing CBT. The ASQ was developed based upon the learn helplessness model of depression. Attributional style is how people attribute an external occurrence in relationship to themselves. For example, if a person has a negative attributional style when encountering a problematic situation, he or she attributes the cause of the problem to himself or herself. Thus, a person who scores low on the ASQ scale attributes him or herself to have had impact or cause the external event. It has been shown that patients with MDD who have had CBT scored higher on the ASQ than patients without CBT (Seligman et al. 1988; Barber & DeRubeis 2001). In addition to the ASQ, the HAM-D17 (Hamilton, 1960) was administered at the acute phase baseline and continuation phase endpoint. The results showed CBT plus medication to have higher attributional style than medication alone. The HAM-D17
continuation end phase scores showed no significant difference between two groups. In all, although there were improvements with attributional style, there were no additive benefits in continuing CBT beyond 12 to 16 weeks for symptoms of depression.

As mentioned, the primary goal of a treatment plan for depressed adult patients is remission of symptoms. In a previously discussed study by Gelenberg (2003), recurrence rates were determined for the 52-week nefazodone/placebo treatment plans. At the end of one year, the probability of recurrence was 30.4% and 30.2% for the nefazodone and combined nefazodone plus CBT groups, respectively. The probability of recurrence for subjects in the placebo group was greater than 45%. Thus, treatment with medication or medication plus CBT yielded lower recurrence rates of depression than treatment with placebo. In support of Gelenberg’s study, a review by Hegerl, Plattner, & Moller (2004) also found combined therapy to be most effective in the long-term management of MDD. Thus, an increasing amount of research supports the benefits of combining pharmacotherapy and psychotherapy.
Primary Care Treatment of Depression

Although a PCP may not have formal psychotherapeutic training, PCPs can still offer brief supportive counseling or recommend self help books. Both can be considered as an adjunct to pharmacotherapy (Burns, 1989). There still remains room for improvement in integrating brief CBT into primary care clinics. Since both non-directive counseling and CBT reduced depressive symptoms quicker than the usual care in the primary care setting, it is important to improve brief CBT training in primary care (Bower et al., 2000).

Optimizing treatment for adults with depression in primary care clinics involve implementation of systems. As research continues to grow in support of combined therapy, recommendations for primary care clinics to integrate psychotherapy with pharmacotherapy are surfacing. Three models were proposed for treating a depressive disorder with psychotherapy and pharmacotherapy (Segal, Kennedy, & Cohen, 2001). The three guidelines are as follows: concurrent, sequential, and cross-over. Concurrent involves initiating both psychotherapy and pharmacotherapy at the beginning of treatment. Sequential involves adding additional therapy to a monotherapy. Crossing over involves switching from a pharmacotherapy treatment to a psychotherapy treatment. It was also determined that different depressive disorders such as MDD or depressive disorder NOS responded best to different therapeutic combinations. In a separate study, it was discovered that monotherapy with medication for 6-8 weeks was insufficient to attain complete remission of the depressed patient. It was further shown in the study that adding a non-antidepressant, such as lithium, thyroid hormones, or buspirone, aided in treating incomplete remission (Thase, 2003).
In management with pharmacotherapy alone, Kelsey (2001) found that serotonin and norepinephrine reuptake inhibitors significantly reduce relapses in patients with MDD.

Lovell & Richards (2000) recommended a CBT treatment model consisting of three broad levels differentiated by therapy intensity. Level I should be the primary CBT treatment choice for the majority of patients. This level involves brief therapies and self-help provided by a trained practitioner or counselor. Level II CBT consists of patients at risk for suicide or who have severe or complex disorders. Treatment at this level is more focused and planned. Activities or steps are written or discussed for patients to perform. Level III encompasses patients who are resistant or non-responsive to CBT at levels I and II. A level III patient may also be a patient at high risk for suicide and treatment often involves a mental health care specialist. The benefit of implementing Lovell & Richards three level model is the decreased need for intensive treatment in all patients. Patients at Level I may respond to brief therapy or self-help. PCP’s trained to deliver Level I therapy may reduce the need for a patient to enter a 12-16 session CBT program. Furthermore, a 12-16 CBT session may provide no additional benefit because majority of improvements are seen within eight weeks of therapy (Barkham et al., 1996).

The Structured Psychosocial Interventions In Teams (SPIRIT) course has been used to train PCP’s to effectively deliver Level I therapy. The ten session training course includes PCP training to help patients to identify, overcome, and reduce problems (Whitfield & Williams, 2003). Studies on the efficacy of the SPIRIT course showed an increase in practitioner awareness and skills for treating level I patients (Glasgow Institute for Psychosocial Interventions, 2002).
In 2002, Oxman, Allen, Dietrich, Williams, and Kroenke proposed a three-component model for treatment of depression in primary care in addition to pharmacotherapy. The model involves the PCP and members of the clinic, a mental health care specialist, and a care manager who serves as an intermediate between the providers and patients. Because few primary care clinics are fully staffed with counselors or psychiatrists, this model provides PCPs to incorporate counselors or psychiatrist in the treatment of patients with depression.

Implementation of the model involves preparation of the practice. PCPs and staff members within clinics would be educated on the Agency for Health Care Policy and Research guidelines, skills in diagnosing depression and response measurement forms, and the use of communication forms. In 1993, The Agency for Health Care Policy and Research Guidelines developed guideline recommendations for treating depression in primary care practice. Skills in diagnosing and treating depression taught to PCPs would be performed by a psychiatrist with experience in primary care. PCPs and staff members within the clinics would also be educated on the response measurement forms. Treatment response measurement forms are a valid and reliable self-report measurement form given to patients. The forms do not require a mental healthcare specialist to administer them. In addition to response forms, educating the practice about communication forms is very important because these forms provide information about the status and progress of each patient for the care manager and mental health care specialist.

The role of care managers involve interacting with the patients, members of the practice, and psychiatrists. A single care manager handles patients from multiple
primary clinics. Care managers perform initial and follow up telephone calls to the patients after office visits. During the calls, care managers provide supportive therapy targeted to increase treatment compliance. For example, if treatment involved an exercise regimen, a care manager would re-emphasize the benefits of exercising and encourage the patient to continue. At varying intervals, care managers conduct a reliable self reporting test and assess symptoms and side effects of the patient and treatment. The information collected aids in determining the need to change or alter medications or treatment plans. Care managers review patient status and progress with both the psychiatrist and the PCP. A PCP, knowing patient status prior to office visits, may directly consult the psychiatrist for input on treatment plan improvements base on the care manager’s report. Depending on patient volume, a psychiatrist would typically have weekly conference calls with care managers or practitioners to make or recommend treatment alterations.

The three-component model became the Re-Engineering Systems for Primary care Treatment of Depression (RESPECT-Depression) project (Dietrich et al. 2004). The project evaluated the effectiveness of intervention versus usual care in the treatment of depression. The study involved 405 depressed patients in a six month intervention program incorporating 180 clinicians from 60 practices. Intervention involved the three-component model for treating depression in the primary care clinic. Patients were contacted via telephone on a monthly basis until the sixth month or remission was accomplished. During the phone calls, patients were given support in accomplishing and overcoming barriers to remission. Patients who received intervention care reported significantly milder symptoms than those in usual care.
Intervention care patients were also asked more often about suicidal thoughts, provided with educational materials, and received help in setting self-management plans. At the completion of six months, more intervention care patients (37%) attained remission than the usual care patients (27%) (Dietrich et al. 2004). Thus, the results of this study showed intervention models to increase positive treatment outcomes in patients with depression in primary care settings.

Based on the RESPECT-Depression project data, Sherbourne, Schoenbaum, Wells, and Croghan (2004) evaluated the treatment patterns and outcomes of depression treated in primary care. They found factors predictive of non-response to minimally appropriate treatment for depression. Minimal treatment was defined as four or more counseling sessions and/or use of minimal dosage recommended antidepressant medications for at least two months. The predicted probability of non-response to minimally appropriate treatment was higher in those who were not employed at baseline, those who had suicide ideation at baseline, or those who had ceased psychotropic medications prematurely. High correlations were found between unemployment at baseline and limitations in physical functioning. Lower correlations were found between unemployment at baseline and depressive symptoms when compared against subjects who were employed at baseline. When compared to patients without suicide ideations at baseline, non-response to minimum treatment was higher in patients who had suicide ideation at baseline. Finally, patients who discontinued their medications early compared to those who did not discontinue their medications were found to have more non-response to minimum treatment.
In an effort to implement better treatment methods for depressed patients, researchers have investigated training the providers and the staff members at the primary care clinics. A quality care improvement program was tested at 46 primary care clinics in six US managed care organizations (Wells, Sherbourne, Schoenbaum, Duan, Meredith, Unutzer, et al., 2000). The Quality Intervention (QI) consisted of two categories, a QI using medication and a QI using therapy. The clinics were provided with screening guidelines for patient selection. A depression nurse specialist would perform the initial intake information and depression status of the subjects. Subjects were then provided with patient education about medication, both medication and therapy, or no treatment. Patients and clinicians then choose treatment choices collaboratively. The patients were followed for twelve months. The results showed that in a primary care clinic with a QI program, treatment for depression was better than the usual care provided. Furthermore, QI medication was found to be superior to QI therapy at the end of the twelve month study.

A separate study was performed to review the impact of the psychotherapy intervention from the QI study (Jaycox, Miranda, Meredith, Duan, Benjamin, & Wells, 2003). Audio tapes of the therapy sessions were submitted and reviewed for the type of therapy provided per session, brief CBT or motivational. Therapists were trained to provide brief CBT to subjects with minor depression and to provide motivational sessions for subjects who require continuation of CBT. The study reviewed the degree of QI therapy, with or without CBT-type content, and the amount of individual or group therapy received. The results of the study showed QI-therapy programs in the primary care clinics to be effective in getting patients into psychotherapy for the treatment of
depression. In a five year patient follow up study, Wells et al. (2004) found patients in combined QI-medication and QI-therapy programs to have 6.6% less depressive disorders than the usual care group. Research has shown no significant difference in the total health care cost between average usual care, QI therapy, or QI medication (Schoenbaum et al., 2001). Thus, cost should not be a hindrance for implementing primary care interventions to optimize the treatment of depression.

Another approach to implementing effective depression management involved supportive telephone calls. A randomized controlled trial study was performed to determine an effective management plan for primary care patients beginning antidepressant treatment (Simon, Ludman, Tutty, Operskalski, & Von Korff, 2004). Six hundred patients were randomized into three groups; usual care, telephone care management, and telephone care management plus psychotherapy. Telephone care management involved a brief assessment of patient progress. Care managers were provided with scripts and guidelines to inquire about depressive symptoms, medication compliance, and medication side effects. In addition to the telephone care, the telephone care management plus psychotherapy group patients had eight additional telephone psychotherapy sessions. The telephone psychotherapy sessions provided structured cognitive-behavioral therapy lasting 30 to 40 minutes each session. The Hopkins Symptom Checklist Depression Scale (SCL) and the Patient Health Questionnaire (PHQ) were both used to assess the treatment progress at base line, six weeks, three months, and six months. Patients in the telephone psychotherapy group showed the greatest improvement in the SCL, followed by the telephone alone group, and then the usual care. Research continues to determine the efficacies of treatment
types for depressed patients in the primary care setting. It is understood that benefits may be derived from psychotherapy, pharmacotherapy, or combined therapy; however, the varying combinations provided by the primary care provider may either expedite remission or prolong remission of depression.
Discussion

I have examined pharmacotherapy in the treatment of adult depression both alone and in combination with psychotherapy. It is true that swallowing a pill once/twice a day is much simpler than 12 to 16 once/twice a week hour long psychotherapy sessions. Thus, with the busy and hectic lifestyles of the 21st century, patients are more often prescribed the former treatment consisting of medication. Although research has shown psychiatrists to prescribe more medication and CBT, one must understand that the majority of psychiatrists are seeing patients who have been referred by a PCP, and they have the advantage of knowing which medication class or strength does not work for the patient. Thus, patients who are seen by a psychiatrist may have already been on lower dose medications prescribed by the PCPs. The collaborative work among PCPs, counselors, and psychiatrist will benefit patients with adult depression the most. As discussed previously, research continues for improvements in treating depression in the primary care clinics. Proposed guidelines such as concurrent, sequential, and cross-over provide primary care clinics methods to incorporate combined therapy. Other recommendations include CBT treatments of varying intensities allow for patients to receive CBT at a level that is needed. Not all patients with adult depression require the need for a specialist. Patients who have fewer signs and symptoms can be managed in primary care clinics with minimum CBT. Finally, the RESPECT-depression project and the quality care improvement programs have shown combined therapy in the primary care clinics to be of benefit to the treatment of adult depression. Additional research is still needed to differentiate the efficacies of these programs in a large, medium, or small size practice. In all, adult depressed patients seen in the primary care
Clinic have been shown to have greater improvement when additional interventions such as CBT, self help books, or additional follow-up care are incorporated with their pharmacological treatments.
References


<table>
<thead>
<tr>
<th>DSM-IV-TR Code</th>
<th>Mood Disorder</th>
<th>Diagnostic Criteria</th>
<th>Categories</th>
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</table>
| 296.2          | Major Depressive Disorder, Single Episode | A. One Major Depressive Episode defined as Five or more symptoms during a two week period with at least one symptom either depressed mood or loss of pleasure or interest. Symptoms may include depressed mood, diminished interest, weight loss, insomnia/hypersomnia, restlessness/sluggishness, fatigue, feelings of guilt, inability to concentrate, and/or recurrent thoughts of suicide.  
B. Not superimposed on Schizophrenia, Schizophreniform Disorder, Delusional Disorder, or Psychotic disorders  
C. No Manic, Mixed, or Hypomanic Episodes | Mild, Moderate, Sever with or without Psychotic features  
Chronic  
With Catatonic Features  
With Melancholic Features  
With Atypical Features  
With Postpartum Onset  
In Partial Remission, In Full Remission (applies if full criteria not met for diagnosis) |
| 296.3          | Major Depressive Disorder, Recurrent | A. Two or more Major Depressive Episodes with a two month interval between episodes  
B. Not superimposed on Schizophrenia, Schizophreniform Disorder, Delusional Disorder, or Psychotic disorders  
C. No Manic, Mixed, or Hypomanic Episodes | Mild, Moderate, Sever with or without Psychotic features  
Chronic  
With Catatonic Features  
With Melancholic Features  
With Atypical Features  
With Postpartum Onset  
In Partial Remission, In Full Remission (applies if full criteria not met for diagnosis) |
<table>
<thead>
<tr>
<th>Code</th>
<th>Disorder</th>
<th>Description</th>
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</table>
| 300.4 | Dysthmic Disorder | A. Depressed moods for most days for a minimum of two years  
B. Two or more of the following while depressed:  
- Poor appetite/overeating  
- Insomnia/hypersomnia  
- Fatigue/low energy  
- Low concentration  
- Low self-esteem  
- Feelings of hopelessness  
C. Absence of symptoms no more than 2 months at a time  
D. No Major Depressive Episodes during first two years  
E. No Manic, Mixed, or Hypomanic Episodes  
F. Not superimposed on Schizophrenia, Schizopreniform Disorder, Delusional Disorder, or Psychotic disorders  
G. Symptoms are not due to usage of a substance  
H. Symptoms impairs functioning |

- Early Onset (before 21 years of age)  
- Late Onset (21 years of age or beyond)  
- With Atypical Features
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<td>F32.3</td>
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Abstract

Objective: To determine the optimal treatment for depressed adult patients treated by primary care physicians. Method: A literature review of pharmacological and non-pharmacological treatment methods was performed with the help of the Medical University of Ohio’s library databases including MEDLINE, PubMed, CINAHL, and PsychINFO. Results/Conclusion: Pharmacotherapy and minimal contact psychotherapy through self-help manuals and telephone calls have been shown to be therapeutic in patients with Major Depressive Disorder and Dysthmia. Monotherapy and combination pharmacotherapy with psychotherapy are more successful at attaining remission than psychotherapy alone for patients with dysthymia. In patients with chronic depression, combination therapy is superior to pharmacotherapy or psychotherapy in patients without history of childhood trauma. Combination pharmacotherapy and psychotherapy also has higher depression remission rates than psychotherapy alone. Finally, this review shows that quality intervention programs in primary care have additive therapeutic and improved outcome effects in adult patients with depression.