

Assessment and Treatment of Depressed Older Adults in Primary Care

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The purpose of this paper is to describe and discuss both assessment and psychotherapeutic techniques that can be applied in primary-care medicine for older adults seeking mental health services in these settings. Assessment techniques that are amenable to primary-care settings include the Center for Epidemiological Studies Depression Scale, Revised; the Geriatric Depression Scale-15; two and nine-symptom Patient Health Questionnaire; the General Health Questionnaire; the Beck Depression Inventory-II; and the Beck Depression Inventory for Primary Care. Psychotherapeutic interventions that have been created and/or modified for primary-care settings are Problem solving therapy (PST-PC) and interpersonal therapy (IPT-PC). These detection tools and treatments are discussed in the context of primary-care medicine.

Key words: late-life depression, primary care, late-life psychotherapy, diagnosis. [*Clin Psychol Sci Prac* 12: 321–335, 2005]

The National Institute of Mental Health Epidemiologic Catchment Area Study (Koenig & Blazer, 1992) reported that the prevalence rate of major depression in older adults is 1%. In primary-care settings, depression is a significant public health problem, with the rates of major depression in older adults ranging from 5–10% (Areán & Alvidrez, 2001; Koenig & Blazer, 1992; Mojtabai & Olfson, 2004; Oxman et al., 1990).

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Depression is a costly and debilitating condition in older adults. Depression in late life slows recovery rates from surgeries and serious illnesses and is related to an increase in mortality (Beekman et al., 1998; Unützer, Katon, et al., 2002, Unützer et al., 2000). Further, 19% of completed suicides are committed by older adults (Hoyert et al., 2001), with white men over the age of 65 having the highest risk of suicide (Juurink, Hermann, Szalai, Kopp, & Redelmeier, 2004).

Fortunately, depression in late life is treatable (Charney et al., 2003). According to Whyte et al., (2004), most older adults respond well to antidepressant medication and to psychotherapy. While older adults receive substantial benefit from antidepressant medication and psychotherapy, very few older adults have access to these efficacious treatments (Bartels et al., 2004; Unützer, et al., 2000). This is driven in part by the fact that the majority of older adults seek help for their depressive symptoms in primary-care medicine (Areán & Unützer, 2003; Areán, Hegel, & Reynolds, 2001; Currin, Hayslip, Schnieder, & Kookan, 1998). Furthermore, according to Bruce et al., (2004), older adults who commit suicide do so within months of visiting a primary-care provider, indicating that depression often is unrecognized and untreated in primary care. This is unfortunate, given the fact that depression in older primary-care patients can be accurately diagnosed and treated. Moreover, if late-life depression is treated, other medical conditions such as chronic pain (Lin et al., 2003) and heart disease (Burg & Abrams, 2004) also are more easily managed.

The primary-care setting has several unique system, provider, and patient characteristics. Thus, the use of assessment and treatment methods that were validated in

the general population of older adults may not always be applicable. The primary-care system is highly demanding, with care providers typically seeing 100 patients per week and generally having between 10 and 15 min to manage a host of chronic conditions. This rarely allows the time necessary to accurately assess and treat depression in their older patients (Unützer, Katon, et al., 2002). In addition, some physicians may lack adequate training in mental health and may feel uncomfortable working with depressed older adults (Glasser & Gravda, 1997). Last, older primary-care patients prefer to receive treatment from their primary-care provider in the primary-care clinic (Areán et al., 2001) and report their depression differently from other community-dwelling older adults (Yates et al., 2004). For this reason, the review provided here is focused primarily on those studies that explicitly tested assessment and treatment of older adults in the primary-care setting. This review should help guide psychologists who are already working in—or wish to work in—primary-care settings that serve older patients.

ASSESSING DEPRESSION IN OLDER PRIMARY-CARE PATIENTS

According to the U. S. Preventative Services Task Force (Pignone et al., 2002), screening for depression can improve the likelihood that older adults will receive treatment for depression in primary-care medicine. In the primary-care setting, proper detection of any disease typically involves the use of a screening tool that is sensitive enough to *detect* the condition, followed by a more *comprehensive assessment* of those cases that screen positive for the condition (Kroenke, Spitzer, & Williams, 2003).

Detecting Depression in Older Primary-care Patients

Response format (true-or-false versus Likert scale) and length of the tool all affect the likelihood that a detection tool will be used in primary-care medicine. In selecting detection tools for use with older primary-care patients, it is important to know how the majority of older primary-care patients report their depression. A major challenge associated with the diagnosis of depression in primary care is the fact that older primary-care patients experience depression more physically (Lapid & Rummans, 2003; O'Conner, Rosewarne, & Bruce,

2001), whereas older community-dwelling adults experience depression both physically and emotionally (Lewinsohn, Seeley, Roberts, & Allen, 1997). Older primary-care patients are less likely to endorse affective symptoms of depression such as sadness or depression and are more likely to endorse symptoms such as fatigue, sleep disturbance, and anhedonia (Areán & Miranda, 1997; Norris, Arnau, Bramson, & Meagher, 2003). Older primary-care patients also have less severe symptom scores on depression scales than community or specialty care older adult samples (Klapow et al., 2002; Yates et al., 2004). Further, older primary-care patients tend to report far more disability associated with depression than do community-dwelling older adults (Yates et al., 2004).

To overcome these diagnostic difficulties, some researchers favor an exclusive approach that does not take into consideration any somatic symptoms. This approach provides good specificity, but likely results in many undetected cases. An inclusive approach, on the other hand, takes into consideration both somatic and cognitive-affective symptoms. This approach yields good sensitivity but as a result may include many false positives (i.e., low in specificity). Currently, there are no gold standards for the diagnosis of depression in medically ill patients and one needs to be cautious of the approach used (Koenig, George, Peterson, & Pieper, 1997).

The Center for Epidemiological Studies Depression scales (CES-D; Radloff, et al., 1977), the Geriatric Depression scales (GDS; Brink, et al., 1982), the Patient Health Questionnaire (PHQ; Kroenke et al., 2001), the General Health Questionnaire (GHQ; Goldberg, 1972), and the Beck Depression Inventories (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) have all been evaluated for their utility in older primary-care patients. According to a recent review by Watson and Pignone (2003), the scales all function similarly to one another, ranging in sensitivity from 74–100% and specificity from 53–98%. However, some are more efficient than others. To help with the selection process, we review each detection tool and offer our recommendations for selection. It should be noted here that we do not provide a review of all existing depression tools. Omitted are the Zung (1965), the Montgomery Ashberg Depression Rating Scale (Montgomery, 1979), and other scales that have been developed in Europe but have not been

extensively studies here in the United States. Our decision to omit discussion of these scales is based solely on the limited data available on primary-care patients. Several excellent volumes on late-life depression assessment exist, and we refer the reader to those for a review of depression assessment in general (Karel, Ogland-Hand, Gatz, & Unützer, 2002).

The Patient Health Questionnaire

The Patient Health Questionnaire (PHQ; Spitzer, Kroenke, & Williams, 2000) is a screening instrument developed specifically for primary-care medicine to assist primary-care providers in identifying the most common psychiatric diagnoses in these settings. For detecting depression, the PHQ is a two-stage instrument, consisting of a two-item screen, followed by a nine-item severity score. Both stages have been evaluated for their utility in detecting depression in primary care independently. With regard to efficiency, both instruments are relatively easy and quick to administer (under 5 min).

The two-item screener, known as the PHQ-2, is comprised of the two gating symptoms of depression: “Have you felt depressed or down all day, nearly every day for at least two weeks?” and “Have you felt less interested in things that you are usually interested in, all day, every day for at least two weeks?” A number of studies have investigated the utility of this two-item screener in detecting depression in primary-care patients of all ages. The two-item screener has been found to be a sensitive and selective measure of depression, with sensitivity estimates between 82% and 95% and specificity between 57% and 90% (Brody et al., 1998; Henkel et al., 2004; Kroenke et al., 2003; Rost, Burman, & Smith, 1993; Whooley, Avins, Miranda, & Browner, 1997). Two studies have investigated the utility of the PHQ-2 as a stand-alone depression screener in older primary-care patients, both with positive results. Using a cut score of one on the PHQ-2, sensitivity has been found to be as high as 84% and specificity as high as 64% (Blank, Gruman, & Robison, 2004).

The nine-item PHQ, known as the PHQ-9, also is a highly sensitive and selective depression detection tool in primary care. According to Kroenke et al. (2001), a score of 10 or more on the PHQ-9 has 88% sensitivity and 88% specificity in detecting major depression. In

Spanish-speaking primary-care patients, the same cut score yields a sensitivity estimate of 77% and an excellent specificity of 100% (Wulsin, Somoza, & Heck, 2002). In older primary care patients, the PHQ-9 is also quite useful, with high sensitivity (91%) and specificity (89%) using the same cut score as is used in younger primary-care patients (Williams, Brizendine, et al., 2005). It also has been found to be very sensitive to changes in depression over time in older primary-care samples, an analysis that has yet to be conducted with other depression measures (Lowe, Unützer, Callahan, Perkins, & Kroenke, 2004).

Based on the extant literature, at this time the PHQ-9 may be the more effective detection tool of the two, having greater specificity than the PHQ-2. The PHQ-9 has a particular advantage in that it may work particularly well in mixed-age clinics, because the same cut score that identifies depression in younger patients can be used to identify depression in older patients. Given its excellent identification properties and its uniform performance across age groups, the PHQ-9 is a good choice for the primary-care setting. Further, the PHQ-9 is part of the larger PHQ diagnostic assessment for primary care, which makes in-depth assessment of other psychiatric comorbidities possible. In large, busy clinics, the PHQ-2 could serve as a useful initial detection tool, to be followed by the PHQ-9 for cases that screen positive.

The Center for Epidemiological Studies-Depression Scale

The two most studied versions in primary care are the 20-item Center for Epidemiological Studies-Depression scale (CES-D; Radloff et al., 1972) and the 10-item, CES-D Revised (CES-D-R; Irwin, Artin, & Oxman, 1999). From a practical perspective, both versions of the CES-D are relatively easy to administer. The CES-D-20 takes 5–10 min to administer to older patients (Sharp & Lipsky, 2002), whereas the CES-D-R takes less than 5 min to administer (Blank et al., 2004).

The CES-D 20-item version is very useful as a screening instrument in older primary-care patients. It has been translated into a number of languages, with data supporting the tools' reliability in older adults of different ethnic groups (Miller, Markides, & Black, 1997). Studies in the general geriatric population have found a cut score of 15 or more to have sensitivity

ranging from 57–100% and specificity ranging from 68–88% (Beekman et al., 1997; Lewinsohn et al., 1997; Lyness et al., 1997). According to Lewinsohn et al. (1997), neither functional impairment nor physical illness had an adverse effect on the performance of this measure in the general community of older adults. Several studies conducted in primary-care medicine, however, have found that the factor structure of the CES–D does not replicate in older primary-care patients, although the internal consistency of the scale remains quite high (Areán & Miranda, 1997; Callahan et al., 1994). Despite irreproducible factors, the 20-item CES–D is a good detection tool in older primary-care patients with sensitivities of 85% and specificities of 83% (Blank et al.).

The CES–D–R is a useful tool for older adults, with a demonstrated 100% sensitivity and 47% specificity using a cut score of four (Boey, 1999). In primary-care samples of older adults, it has demonstrated very high internal consistency ($\alpha = .87$; Turvey et al., 1999) and, using a cut score of four, has shown a very good specificity (81–93%) and excellent sensitivity (79–100%; Blank et al., 2004; Irwin, Artin, & Oxman, 1999; Robison, Gruman, Gaztambide, & Blank, 2002).

Both the CES–D and the CES–D–R will be viable detection tools in primary-care medicine. Both have similar advantages to the PHQ–9 in that the instruments can be used in mixed-aged clinics, although the cut score of the CES–D between age groups tends to vary slightly (e.g.; 16 in younger patients, 15 in older patients). The CES–D–R has some advantages over the CES–D in that it is shorter, takes less time to administer and may be more acceptable to older primary-care patients (Irwin et al., 1999). Compared to the CES–D, the CES–D–R is more feasible and has as good detection properties (Blank et al., 2004).

The Geriatric Depression Scale

The Geriatric Depression Scale (GDS; Yesavage et al., 1983) was created primarily for use with older adults in order to overcome the potential biases that medical illness could introduce in the detection of depression. While several versions of the scale exist, the most widely studied in primary-care medicine are the 30-item GDS and the 15-item GDS. The 30-item GDS takes

10–15 min to administer, whereas the 15-item GDS takes 5–10 min to administer (Sharp & Lipsky, 2002).

The data thus far indicate that the 30-item GDS is psychometrically valid and reliable in detecting depression in older adults (Yesavage et al., 1983). In the general community of older adults, using a cut score of 13, the GDS 30-item version has shown 100% sensitivity and 96% specificity (Sharp & Lipsky, 2002; Olin, Schneider, Eaton, Zemansky, & Pollock, 1992). In a different study of community dwellers, the GDS-30 version had a 17% false-negative rate and an 18% false-positive rate (Dunn & Sacco, 1989). In older primary-care patients, a cut score of 10 yielded sensitivity of 100% and specificity of 84%, making it a sound depression-detection tool in older primary-care patients (Lyness et al., 1997).

In primary-care older adults, research indicates that the 15-item GDS is a reliable instrument with good sensitivity (83%) and specificity (84%; Van Marwijk, Arnold, Bonnema, & Kaptein, 1993), using a cut score of four or more. One study found that a cut score of three might be more reliable, with sensitivity at 100% and specificity at 84% (Arthur, Jagger, Lindsay, Graham, & Clarke, 1999). Another study with older African-Caribbean primary-care patients found that using a cut score of four yielded sensitivity of 100% and specificity of 69% (Rait et al., 1999). Further, the majority of older primary-care patients find it an acceptable instrument (87.6%; D’Ath, Katona, Evans, & Katona, 1994). While shorter forms of the GDS have been evaluated, they do not have detection properties comparable to the 15-item GDS with primary-care patients (D’Ath, Katona, Evans, & Katona, 1994).

Given the excellent detection properties of the 15-item GDS and its ease of administration, this version may be a more feasible detection tool than the 30-item GDS. However, one study comparing the 15-item GDS to the CES–D–R found that in primary-care medicine the CES–D–R is a better detection tool, whereas the GDS-15 fares better in inpatient settings. Thus, providers considering detection tools may prefer the GDS-15 if their clinic is comprised of very frail elderly.

The General Health Questionnaire–12

The General Health Questionnaire–12 (GHQ–12; Goldberg, 1972) is used widely as a case-finding

instrument for depression in older primary-care patients around the world. This instrument has been translated into several languages and is consistently found to be a valid instrument across various ethnic and cultural groups (Bhui, Bhurgra, & Goldberg, 2001; Cano et al., 2001; Goldberg et al., 1997; Jacob, Bhugra, & Mann, 1997; Schmitz, Krause, & Tress, 1999; Schmitz, Krause, Heckrath, Alberti, & Tress, 1999). The GHQ-12 showed 83–100% sensitivity and 92–97% specificity, using a slightly higher cut score (3/4) than the cut score used in younger adults (1/2; Papassotiropoulos, Heun, & Maier, 1997). Psychometric analysis confirmed that the GHQ-12 detects depression in older primary-care patients (Werneke, Goldberg, Yalcin, & Ustun, 2000). However, the main problem with the GHQ-12 in older primary-care patients is its tendency toward a high false-positive rate, suggesting that the instrument may be too burdensome on primary-care clinics where specificity of a diagnostic screening tool is paramount (Schmitz, Krause, & Tress, 2001).

To date, no research has compared the GHQ-12 to the other detection tools discussed in this review. Its lack of specificity may pose a potential burden on busy primary-care settings and thus, make this instrument a less favorable choice for detecting depression in older primary-care patients.

Beck Depression Inventories

There are two versions of the Beck Depression Inventory (BDI; Beck et al., 1961) that have been explored in older adults and in primary-care settings. These are the Beck Depression Inventory-II (Beck, Steer, & Brown, 1996) and the Beck Depression Inventory for Primary Care (BDI-PC; Beck, Steer, Ball, Ciervo, & Kabat, 1997), also referred to as the Beck Depression Inventory-Fast Screen (Scheinthal, Steer, Giffin, & Beck, 2001). Only the BDI-II has been explored specifically in older adults, although studies of the BDI-PC do include age ranges up to 77 years of age.

The BDI-II takes 5–10 min to administer in older adults (Sharp & Lipsky, 2002), and while the BDI-PC is likely to be faster to administer (2 min or less), length of time for older primary-care patients to complete has yet to be studied. The BDI-II consists of 21 items and within each item there are four response choices. In a sample of community-dwelling elderly, a cut score of 14 on the

BDI-II had 100% sensitivity and 96% specificity (Olin et al., 1992). In elderly outpatient psychiatric population, the BDI-II had a false-negative rate of 8–22% and a false-positive rate of 18% (Gallagher, Breckenridge, Steinmetz, & Thompson, 1983). Further, this is a valid instrument in African-American people of all ages, where a cut score of 14 yields sensitivity estimates of 87% and specificity estimates of 83% (Dutton et al., 2004).

The BDI-PC is a seven-item true/false scale that is a primary-care modification of the BDI-II. According to Beck, Guth, Steer, and Ball (1997), the BDI-PC has good internal consistency ($\alpha = .86$) and does not appear to have any age or ethnic bias. A cut score of four has been found to yield sensitivity estimates between 97% and 100% and specificity estimates between 84% and 99% for major depression in elderly primary-care patients (Scheinthal et al., 2001; Steer, Cavalieri, Leonard, & Beck, 1999).

Similarly to the PHQ and GHQ-12, the BDI-II and the BDI-PC have not been compared to other depression detection tools in primary-care settings. However, the detection properties of both scales are quite good. BDI-PC is far shorter than the BDI-II and, thus, may be a more time-efficient tool in primary-care medicine.

Recommendations for Tool Selection

In selecting the best tool for detecting depression in older primary-care patients, one must balance psychometric quality, ease of administration, and clinic characteristics. Based on the first two criteria, and until future research is done to directly compare instruments in older primary-care patients, it appears that the PHQ-9 and the CES-D-R may be the most appropriate choices of detection tools, followed by the GDS-15, the BDI-PC, and the GHQ-12. Our rationale for this order is based mainly on the ease of administration, the degree to which tools can be applied uniformly across age groups, and the overall effectiveness in detecting depression. The PHQ-9 has several advantages. Specifically, it can be used uniformly in mixed-age clinics without having special cut scores for different groups of patients, it is relatively quick to administer, and it has demonstrated sensitivity to change in depression over time. Thus, the PHQ-9 can be used not only as a detection tool, but also as a clinical decision

tool during the course of treatment. The CES-D-R shares many of the same qualities that the PHQ-9 does and, thus, is a very close second choice.

It is important to note that the 15-item GDS, the GHQ-12, and the BDI-PC also are valid choices for assessing depression in older adults in medical settings. All three tools have sound detection properties. The 15-item GDS may be a better choice than the PHQ-9 or the CES-D-R in settings that serve very frail geriatric patients, where discrimination between somatic symptoms related to illness and those due to depression is less clear. The BDI-PC and the GHQ-12, however, have been less well studied with older primary-care patients and, therefore, we do not rank those instruments quite as highly.

Comprehensive Assessment of Depression

Detection tools are only the first step in the depression assessment process. While the tools discussed above are fairly accurate in detecting depression in older primary-care patients, a follow-up evaluation is often helpful in finalizing the decision to treat depression. Further, depression assessment is an integral, ongoing process in making clinical decisions during the course of treatment. Thus, depression assessment in primary care does not end with detection but should be followed by a more thorough assessment, and periodic screening once treatment is initiated (Unützer et al., 2002).

Follow-up assessment of depression should include ruling out medical explanations for depressive symptoms and the presence of other comorbid conditions, as well as assessing the impact of depression on functioning. Staab and colleagues (2001) have developed a model of comprehensive assessment found to be useful within the time confines of primary-care medicine. Their approach is to combine the full PHQ, which assesses for anxiety, substance abuse, psychosis, somatoform, and eating disorders, with follow-up assessment of depression that also includes the use of other brief instruments to track any comorbid symptoms once treatment is initiated. If the PHQ is not the measure of choice for a particular practice, other comprehensive assessments could be employed in a similar fashion. Interview-based instruments like the Structured Clinical Interview for the *Diagnostic and statistical manual of mental disorders (DSM-IV*; American Psychiatric Association, 1994) have been found to be diagnostically useful in primary-care

medicine (Pedersen et al., 2001). However, because these instruments rely on a mix of structured questions and clinical judgment, they are best administered by people with proper training in the instrument or with mental health backgrounds.

The screening tools discussed above can all serve as symptom-monitoring tools to assist the provider in determining if their older patients are responding to treatment. Only the PHQ-9 has been evaluated for its sensitivity for change over time in primary-care elderly (Lowe et al., 2004). However, the other screening tools have been used in clinical research, and appear to function well as instruments to determine change in depression symptoms. The most important feature of symptom monitoring is that the measure used be brief and consistent across time (to allow score comparison over time). Monitoring should be done at each treatment visit. Two studies have found that using depression measures in this way results in greater quality of depression care in primary care (Rollman, 2003; Unützer, Patrick, Marmon, Simon, & Katon, 2002).

To summarize, the assessment of depression in older primary-care patients is done in three phases: detection, evaluation, and symptom monitoring. Several excellent tools for depression screening and monitoring exist, as do models for conducting comprehensive evaluation in primary care. A comprehensive study comparing the relative psychometric and functional merits of all of the above-mentioned instruments representing various assessment methods would be helpful to the field. To date, studies of that nature have been limited, and as such, no ideal measure exists (Burns, Lawer, & Craig, 2002).

PSYCHOTHERAPEUTIC TREATMENT FOR DEPRESSION IN PRIMARY-CARE MEDICINE

There is considerable evidence in support of psychotherapy for treating depression in healthy older adults (Areán & Cook, 2002; Scogin, Welsh, Hanson, Stump, & Coates, 2005). Therapeutic effects for psychotherapy to treat depression in late life range between 50 and 86%, whereas effects for medication range between 50 and 60%, indicating that psychotherapy is a highly effective alternative to medication (Schneider & Olin, 1995). In community samples of older adults, two psychotherapies have been studied extensively: cognitive behavioral therapy (CBT; Gallagher-Thompson et al., 2000) and

interpersonal therapy (IPT; Klerman, Weissman, Rousaville, & Chevron, 1996). While other interventions have been explored in treating late-life depression, CBT is considered to have the largest evidence base for treatment of late-life depression.

The literature is replete with reviews detailing the efficacy of these two interventions (Areán & Cook, 2002). However, demonstrated efficacy in community-dwelling samples does not confer demonstrated efficacy in primary-care samples. As with assessment, older primary-care patients differ characteristically from community-dwelling older adults, particularly those who are represented in the existing clinical trial database. Most elderly studied in the existing clinical trials are actively seeking treatment for depression in the mental health sector. Nearly all existing studies have recruited geriatric samples through media advertisement and have delivered treatment in mental health settings (Areán & Gallagher-Thompson, 1996). Seeking depression treatment in primary-care medicine is often the result of stigma concerns regarding the use of traditional mental health services (Alvidrez, 1999). Although acceptance of and preferences for psychotherapy appear to be similar in older primary-care patients and other populations of older adults (Landreville, Landry, Baillargeon, Guerette, & Matteau, 2001), most older primary-care patients prefer to be treated by a primary-care staff member (Areán & Cook, 2002). Further, older primary-care patients with depression tend to be more disabled than community-dwelling depressed older adults, and the typical psychotherapeutic frame may not be realistic for more frail elderly (Areán et al., 2001). Recent controlled trials of mental health integration in primary-care medicine indicate a greater likelihood of older adults accessing psychotherapy services when it is embedded in primary care (Bartels et al., 2004; Bruce et al., 2004; Unützer et al., 2002). According to Catalan, Gath, Anastasiades, Bond, Day, and Hall (1991), for psychotherapy to be realistically embedded into the primary-care setting, it needs to match medicine's fast-paced culture. Thus, it should be a brief intervention that is acceptable to all patients and can be delivered in shorter visits with longer intervals between visits (Areán et al., 2001).

Both problem-solving therapy (PST-PC; Catalan et al., 1991), and interpersonal therapy (IPT-PC; Areán

et al., 2001) have been adapted for use in primary-care settings. CBT has been adapted for primary-care patients; however, this approach was delivered over the telephone so as to overcome both stigma issues and disability-related transportation problems (Landreville, 1998; Smith, Floyd, Scogin, & Jamison, 1997). These therapies will be the focus of this next discussion.

Problem-Solving Therapy for Primary Care

There is a growing evidence base supporting the use of problem-solving therapy for primary care (PST-PC, Catalan et al., 1991) in older primary-care patients. The theory behind PST-PC states that depression is mediated by the ability to solve everyday and major life problems. When faced with repeated difficulties in managing life problems, older adults become demoralized and hence begin to feel helpless over their ability to cope. The key to PST-PC is to learn how to solve problems, so that depression can be dealt with effectively (Areán et al., 2001).

PST-PC is a brief intervention, lasting between six and eight sessions in older patients. The initial visit is 1 h long to allow for an overview of PST-PC and a chance to establish rapport. Subsequently, each visit is approximately 30 min in length. Visits are spaced to be delivered every other week to reduce participation burden on the part of the patient. The intervention is also adapted so that non-mental health providers can learn to administer the intervention. However, research has shown that providers with mental health backgrounds are more likely to learn to apply PST-PC as it is intended (Hegel et al., 2002). Monthly group meetings for patients who respond to treatment can also be provided to older adults. These maintenance groups are meant to reinforce the skills acquired during the acute phase of treatment and to prevent relapse of depression.

There are several studies showing that PST-PC is very effective in treating depression in younger medical patients. PST-PC has been found to be as effective as antidepressant medication in treating major depression (Mynors-Wallis, 2003). PST-PC has also been found to be effective in treating depression in older adults in the community (Areán et al., 1993; Alexopoulos, Raue, & Areán, 2003). In the Treatment Effectiveness Project, a national randomized trial comparing PST-PC and Sertraline for treating minor depression in primary-care

patients, PST-PC does not appear to be as effective in treating minor depression in older primary-care patients as it is in treating minor depression in younger primary-care patients (Williams et al., 2000). However, the global efficacy of PST-PC in this study seemed to be driven by differences in the adequacy to which the intervention was delivered between sites (Hegel et al., 2002). PST-PC was employed in a recent quality improvement study of depression management in older primary-care patients (Untützer et al., 2002). Although data specific to the unique efficacy of PST-PC in treating depression in this sample has yet to be analyzed, participation in PST-PC does not appear to adversely impact treatment outcomes and in fact seemed to be particularly relevant to positive treatment outcomes in older minority primary-care patients (Areán et al., 2005).

Interpersonal Therapy for Primary Care

Interpersonal therapy for primary care (IPT-PC) is a newly adapted intervention for older primary-care patients and thus its efficacy in older primary-care patients is not well established (Bruce et al., 2004). However, IPT-PC is very similar to traditional IPT, which has been studied more extensively in medically ill elderly. The theory behind IPT is that depression is driven by irresolution of four conflict areas, namely grief (loss of significant people), interpersonal conflict (disputes and difficulties with others), role transition (changes in one's societal and personal roles), and interpersonal difficulties (difficulty interacting with people in general). In older primary-care patients, the main areas of conflict that appear to be most common are grief and role transition (Areán et al., 2001). The aim of treatment then is to overcome these conflict areas through active discussion with a therapist.

The delivery of IPT-PC is informed by a psycho-educational orientation where patients are shown an educational video about depression, the rationale behind IPT and the importance of treatment adherence. Family members often participate in the treatment. Like IPT, IPT-PC delivered in three phases, an acute phase consisting of 12–16 weekly sessions, a continuation phase that consists of once-a-month meetings for 6 months, and a maintenance phase of once-every-other-month meetings that last for 2 years. A unique feature of IPT-PC is that it was further adapted to be delivered

over the telephone, indicating that the intervention is feasible for more frail older adults.

IPT-PC was adapted specifically for a recent study on the management of depression and suicidal ideation in older primary-care patients. Although the specific effects of IPT-PC have yet to be evaluated, like PST-PC, IPT-PC does not appear to adversely effect treatment outcomes (Bruce et al., 2004). Studies of the efficacy of IPT for older medically ill patients may shed some light on the potential efficacy of IPT-PC. One study has demonstrated that IPT, on its own, is an efficacious treatment in medically ill patients. According to Mossey, Knott, Higgins, and Talerico (1996), IPT was better than usual care in treating depressive symptoms in patients recently released from acute care settings.

Recent data have shown that IPT is most effective when combined with antidepressant medication, particularly when the patient presents with a chronic and recurrent course (Reynolds et al., 1999). Patients with chronic recurrent depression are particularly susceptible to relapse and poor treatment response to monotherapies (Areán & Cook, 2002). Because no other therapy has been evaluated with older primary-care patients who have chronic and recurrent types of depression, this population may do best with IPT combined with an antidepressant.

Telephone-Based Cognitive Behavioral Therapy

CBT has been adapted to circumvent the access barriers typically found in older adults who are too disabled to attend regular therapy sessions. Telephone-based cognitive behavioral therapy (CBT-T) is theoretically the same intervention as CBT. The therapeutic premise behind CBT is that depression is a function of how people interpret their environment and how they view their ability to function in the world, which in turn effects how they actually cope with psychosocial stress. CBT addresses these issues by teaching people coping skills that change how they process information from their environment (cognitive restructuring), how they interact with other people (social-skills training) and how they manage their mood (behavioral activation). CBT is typically 20 one-hour weekly sessions. Sessions consist of a didactic portion to teach new skills, as well as review of the week and discussion of psychosocial problems from the CBT perspective.

Patients are expected to practice new skills between sessions.

CBT-T typically involves a preliminary orientation meeting to review CBT principles and tools, which is then followed by reading assignments and regular follow-up meetings over the telephone. Several studies have found that CBT-T is better than no treatment or usual care in overcoming depressive symptoms in home-bound elderly (Landreville, 1998; Smith et al., 1997), and in medically disabled patients (Mohr et al., 2000). This model of care may fit well in primary-care practices. As Hunkeler et al. (2000) have demonstrated, antidepressant-medication management done over the telephone results in better response to treatment and greater overall functioning than usual care. CBT-T offers an alternative to medications in telephone-based depression management systems.

Selection of Interventions

Although there is not yet an evidence base in support of psychotherapies adapted for older primary-care patients, it does appear that the interventions, reviewed here, can be added seamlessly into primary-care practices. Moreover, the fact that there is evidence suggesting the efficacy of these interventions in both younger primary-care patients and older, community adults, indicates that they hold promise as effective, and feasible, depression interventions for older primary-care patients. The choice of intervention will likely be driven by the evidence base and the nature of the primary-care clinic. PST-PC has the largest evidence base in primary-care patients, but relatively little in older adults. However, its design is very well suited to primary care medicine because of its brief nature. IPT-PC has some demonstrated efficacy in medically ill patients, but far less than PST-PC in primary-care settings. However, this intervention may be the best choice for patients who have recurrent types of depression. CBT-T has a larger evidence base for home-bound elderly and medically ill patients but has not been specifically evaluated within the context of primary-care medicine. The fact that it can be delivered by phone is an advantage to older primary-care patients with mobility or transportation issues. However, there currently is not sufficient research evidence to conclusively indicate which treatment

approach works best with depressed older adults in primary-care settings.

PSYCHOLOGISTS' ROLE IN MANAGING DEPRESSION IN OLDER PRIMARY-CARE PATIENTS: CONCLUDING REMARKS

As can be surmised from the above review, older primary-care patients benefit from quality assessment and treatment of their depression. Research has further shown that the ideal scenario for increasing detection and treatment of late-life depression is to embed these practices into the primary-care setting (Bruce et al., 2004; Unützer et al., 2002). As has been demonstrated in quality improvement studies, older adults are far more likely to engage in treatment if they are identified and treated in the primary-care setting (Bartels et al., 2004; Beaudin & Burchuk, 2004; Meredith, 2004; Neumeyer-Gromen, Lampert, Stark, & Kallischnigg, 2004).

In developing best methods for integrating depression care into primary care, researchers have based their quality improvement designs on methods that have been found to be effective for managing other illnesses in primary-care medicine, such as diabetes and hypertension. Using interdisciplinary collaborative care models as a guide, the integration of depression care into primary care typically consists of (a) case identification tools, (b) patient education tools, (c) access to consultation, (d) accessible treatments (including brief psychotherapy), and (e) on-going monitoring of treatment outcome (Rollman et al., 2003).

An interdisciplinary collaborative approach featuring a "depression care manager" has been effective in treating depression in older primary-care patients and in improving access to care. A depression care manager is the heart of the model, the key person to coordinate all these aspects of care. The care manager works closely with the patient and primary-care provider and is responsible for providing patient education and activation, monitoring progress in treatment, and providing brief psychotherapy as indicated (Pincus, Hough, Houtsinger, Rollman, & Frank, 2003). While research has found that any medical staff person can fill the role as the depression manager, the more experience with mental health treatment the care manager has, the more likely they are to deliver high quality care (Hegel et al., 2002). In fact, a Canadian study on the integration of

mental health professionals in primary-care medicine (i.e. psychiatrists and psychologists) found that this integration is not only feasible, but results in substantial improvements in managing depression (Kates, Crustolo, Farrar, & Nikolaou, 2001). Thus, psychologists, who are experienced in assessment of mental health problems and in the treatment and management of depression, are ideal candidates for this role in managing late-life depression in primary-care medicine, and integration into primary-care medicine is a natural next step for the field (Brantley, 2004; Epping-Jordan, 2004; Suls & Rotherman, 2004). Although a full review of the challenges and rewards of psychologists adopting a collaborative, integrated approach to mental health care is beyond the scope of this paper, interested readers are referred to an excellent text that addresses this topic (Frank, McDaniel, Bray, & Heldring, 2004).

In summary, depression in late life is a common and disabling problem in primary-care medicine. In the realm of assessment, several excellent screening instruments exist, and the choice as to which instrument to select can depend on the nature of the primary-care clinic. Psychotherapeutic treatment of late-life depression in primary care is also feasible, and primary-care practices have three very viable options to choose from. Psychologists can play a critical role in the management of depression in primary-care settings, given their mental health expertise and their growing presence in primary-care medicine.

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