COUNCIL ON SOCIAL WORK EDUCATION

CSWE Gero-Ed Center NATIONAL CENTER FOR GERONTOLOGICAL SOCIAL WORK EDUCATION
GERIATRIC SOCIAL WORK INITIATIVE • *Funded by The John A. Hartford Foundation*

MASTER'S ADVANCED CURRICULUM (MAC) PROJECT
MENTAL HEALTH AND AGING RESOURCE REVIEW
2014 REVISION

# CHAPTER 2: ANXIETY DISORDERS IN OLDER ADULTS LITERATURE REVIEW

Zvi D. Gellis, Eunhae Grace Kim, and Stanley G. McCracken*

## Search Strategy

This review of the literature on Late Life Anxiety was undertaken to determine the extent of the problem, and the effectiveness of various psychosocial and pharmacological treatments. The term *effectiveness* is defined here as producing or capable of producing a desired effect in a controlled study. This review consists of systematic reviews, meta-analyses, other reviews of the literature, experimental and quasi-experimental designs, and case studies with older adults (65+) as participants, reported in English language peer-reviewed journals.

Keyword terms included: aged, aging, elderly, geri*, older adult, senior, anxiety, anxious, anxiety disorder, intervention, treatment, and randomized controlled trials. We conducted searches on the following databases: PubMed (1990-2013); PsycINFO (1972-2013); Ageline (1978-2013); Social Work Abstracts (1977-2013); and Social Sciences Abstracts (1983-2013). Relevant journals were hand searched to identify recent publications that would not have been cited or indexed. Unpublished literature was not included in the review.

## Background and Significance

Epidemiological evidence suggests that anxiety is a common and major problem in later life, yet it has received less attention than depressive disorders. Anxiety disorders are often associated with common age-related medical and chronic conditions such as asthma, thyroid disease, coronary artery disease, dementia, and sensory loss (Diala & Muntaner, 2003). Anxiety in later life has been identified as a risk factor for greater disability among

* Zvi D. Gellis, PhD, University of Pennsylvania
Eunhae Grace Kim, MSW, Doctoral Candidate, University of Pennsylvania
Stanley G. McCracken, PhD, University of Chicago

older adults in general, and has also been associated with less successful recruitment into, and outcomes of, geriatric rehabilitation services (Bowling, Farquhar, & Grundy, 1996). Researchers and practitioners are beginning to recognize that aging and anxiety are not mutually exclusive; anxiety is as common in the old as in the young, although how and when it appears is distinctly different in older adults. Additionally, there is a need for more effectiveness research on evidence-based treatments for late life anxiety (Mitte, 2005).

Recognizing an anxiety disorder in an older person poses several challenges. Aging brings with it a higher prevalence of certain medical conditions, realistic concern about physical problems, and a higher use of prescription medications. As a result, separating a medical condition from physical symptoms of an anxiety disorder is more complicated in the older adult. Diagnosing anxiety in individuals with dementia can be difficult, too: agitation typical of dementia may be difficult to separate from anxiety, impaired memory may be interpreted as a sign of anxiety or dementia, and fears may be excessive or realistic depending on the person's situation.

## Epidemiology: Anxiety Disorders

Although anxiety disorders, like most psychiatric conditions, may be less common among older adults than among younger people, epidemiological evidence suggests that anxiety is a major problem in late life (Salzman & Lebowitz, 1991; U.S. Department of Health & Human Services, 1999). A recent review by Wolitzky-Taylor (2010) reported the prevalence estimates of anxiety disorders in older adults, ranging from 3.2% (Forsell et al., 1997) to 14.2% (Ritchie et al., 2004). For example, the National Comorbidity Survey-Replication (NCS-R) reported 7% of older adults 65 and above met the anxiety disorder criteria within the past one year (Gum et al., 2009). Meanwhile, another study found that 33.7% of its participants, who were 55-years-old and older and currently diagnosed with Generalized Anxiety Disorder (GAD), reported an onset of GAD symptoms prior to being 50 years old (Chou, 2009).

One study involving interviews with nearly 6,000 people nationwide reported lifetime prevalence rates of 15.3% for DSM-IV-diagnosed anxiety disorders in respondents over age 60 (Kessler, Berglund, Demler, Jin & Walters, 2005). Another study of approximately 500 community-dwelling triethnic elders reported prevalence rates of 11.3% in blacks, 12.4% in Hispanics, and 21.6% in non-Hispanic whites age 75 and older (Ostir & Goodwin, 2006). Myers et al. (1984) report a six month prevalence of anxiety disorders in late life ranging from 6.6% to 14.9% across three Epidemiologic Catchment Area (ECA) sites. Comparable data from the Netherlands indicate a prevalence of 10.2% (Beekman et al., 1998). Anxiety disorders overall appear to be the most common class of psychiatric disorders among older people, more prevalent than depression or severe cognitive impairment (Beekman et al., 1998; Kessler et al., 2005; Regier et al., 1988).

## Epidemiology: Phobias and Generalized Anxiety Disorder

Prevalence estimates for Generalized Anxiety Disorder among older adults range from 1.2% (Gum et al., 2009) to 7.3% (Beekman et al., 1998). Few studies have reported the prevalence estimates of social phobia among older adults and those estimates were relatively low, ranging from 0.6% (Trollor et al., 2007) to 2.3% (Gum et al., 2009; Wolitzky-Taylor, 2010).

Phobias and GAD account for most anxiety disorders in late life (Beekman et al., 2000; Flint, 2005; Hybels & Blazer, 2003; LeRoux, Gatz & Wetherell, 2005; Wolitzky-Taylor & Castriotta, 2010). Reviews summarized the prevalence of specific anxiety disorders in older community-based epidemiological samples as follows: phobias, including agoraphobia and social phobia, 0.7-12.0%; GAD, 1.2-7.3%; obsessive-compulsive disorder, 0.1-1.5%; and panic disorder, 0.0-0.3% (Alwahhabi, 2003; Beekman et al., 1998; Beekman et al., 2000; Krasucki, Howard, & Mann, 1998). Prevalence of GAD in older adults was estimated at 1.9% in the ECA sample and 7.3% in the Dutch sample (Beekman et al., 1998; Beekman et al., 2000; Blazer, 1997). Among people 55 years of age and older, Douchet, LaDouceur, Freeston & Dugas (1998) found that 12.8% meet criteria for GAD. By comparison, ECA prevalence rates for older adults are 1.8% for major depression, 2.8% for dysthymia, and 4.9% for severe cognitive impairment (Blazer, 1997; Regier et al., 1988).

### Epidemiology: Subthreshold Anxiety Symptoms

The prevalence of clinically significant anxiety, including symptoms that do not meet criteria for a specific disorder, is common among older adults and may be as high as 20-29% (Davis, Moye, & Karel, 2002; Lenze et al. 2005). Grenier et al. (2011)'s large study reported the sum of the syndromal and subthreshold anxiety estimates as 26.2%. This includes anxiety symptoms associated with common medical conditions such as asthma, thyroid disease, coronary artery disease, and dementia, as well as adjustment disorders following significant late life stressors such as bereavement or caregiving. There is also controversy over whether the prevalence of anxiety has been accurately determined in older adults, because DSM-IV criteria may not apply as well, anxiety symptoms may be expressed as somatic features or behavior changes (e.g., aggression, assaultive behaviors), and the clinical presentation of anxiety in late life may be more likely to include depressive symptoms (Beck, 2004; Diefenbach & Goethe, 2006; Fuentes & Cox, 1997; Kim, Braun, & Kunik, 2001; Palmer, Jeste, & Sheikh, 1997).

## Risk Factors

Aging per se is not a risk factor for anxiety but rather a protective one (Acierno et al., 2006). However, several biological, psychological, and social risk factors for anxiety disorders have been identified for older adults. Biological risk factors include: chronic health conditions (Schoevers et al., 2003), poor self-perception of health (van Zelst et al., 2003), and functional limitation (Schoevers et al., 2003). Psychological risk factors include: external locus of control, poor coping strategies, neuroticism, and psychopathology (Schoevers et al., 2003; van Zelst et al., 2003). Social risk factors include: low frequency of contact (Forsell, 2000), smaller network (Beekman et al., 1998), lack of social support (Forsell, 2000; Beekman et al., 2000), loneliness (van Zelst et al., 2003), stressful life events (van Zelst et al., 2003), lower education level (Beekman et al., 1998), being female (Schoevers et al., 2003; van Zelst et al., 2003).

## Comorbidity Issues

### Medical Comorbidity

The high comorbidity of anxiety with medical illness is multidimensional. Anxiety is complex and may be a reaction to a medical illness, may be expressed as somatic symptoms, or may be a side effect of medications. Studies have found an association between anxiety and medical illnesses such as diabetes (Blazer, 2003), dementia (Wrag & Jeste, 1989), coronary heart disease (Artero, Astruc, Courtet, & Ritchie, 2006; Kuzbansky, Cole, Kawachi, Vokonas, & Sparrow, 2006; Todaro et al., 2007), cancer (Deimling et al., 2006; Goodwin, Zhang, & Ostir, 2004; Ostir & Goodwin, 2006) chronic obstructive pulmonary disease (Karajgi, Rifkin, Doddi, & Kolli, 1990; Vogele & von Leupoldt, 2008), postural disturbance & vestibular disease (Gagnon et al., 2008), chronic pain (El-Gabalawy et al., 2011), and Parkinson's disease (Stein, Heuser, Juncos, & Uhde, 1990; Pontone et al., 2009). For example, several studies have found that 18% (Yohannes et al., 2000) to 50% (Dowson et al., 2001) of older adult patients with chronic obstructive pulmonary disease reported significant anxiety symptoms. Todaro et al. (2007) reported that 36% of study cardiac patients (Mean Age: 60) were currently diagnosed with an anxiety disorder and 45.3% in their lifetime. Another study noted that anxiety symptoms were found to be associated with future development of coronary heart disease (Caminero et al., 2005). In several studies of Parkinson's disease patients, approximately 40-43% reported significant anxiety symptoms (Menza et al., 1993; Pontone et al., 2009). Comorbid anxiety and medical illness is associated with increased mortality. For example, anxiety is associated with greater risk for mortality for patients after heart surgery (Tully et al., 2008) while panic attacks are associated with increases in risk for cardiovascular mortality (Smoller et al., 2007). At least one tri-ethnic study found that anxiety was associated with increased risk for death from all causes in persons 75 years and older (Ostir & Goodwin, 2006).

Psychiatric Comorbidity

**Depression.** As with young adults, anxiety in older adults has been found to often co-occur with depression (Beck, 2004; Beekman et al., 1998; Blazer, 1997; Byers et al., 2010; Heck et al., 2011; King-Kallimanis et al., 2009; Schoevers et al., 2003; Steffens et al., 2005;). Furthermore, anxiety symptoms have been found to lead to depressive symptoms (Wetherell, Gatz, & Pederson, 2001). In fact, community survey research has revealed that the comorbidity of anxiety and depression has been found to be as high as nearly 50% among older adults (Beekman et al., 2000). In the community study, 25% of older adults with anxiety also had major depression. Related to this, up to 50% of older adults with major depression had a comorbid anxiety disorder (Beekman et al., 2000; Blazer, 2003; Jeste, Hays & Steffens, 2006). Large community-based studies have shown a positive association between the comorbid GAD and depression, and its chronicity (Schoevers et al., 2005) and severity (Hopko et al., 2000) compared to GAD or depression alone. Depressed older adults with GAD symptoms have shown greater suicidality (Lenze et al., 2000; Bartels et al., 2002), treatment non-responsiveness (Mulsant & Wright, 1996), and a likelihood of treatment dropout (Flint & Rifat, 1997) when compared to those without anxiety.

**Mood & Personality Disorders**. Older adults with GAD often also suffer from other psychiatric disorders. The majority of GAD patients have mood disorders (Flint, 2005; Lenze et al., 2005). For example, bipolar disorder has been found to often co-occur with anxiety for older adults (Sajatovic et al., 2006). Approximately 20% of older adults with bipolar disorder report lifetime rates of generalized anxiety disorder (Goldstein, Hermann

& Shulman, 2006). In addition, personality disorders often co-occur with GAD (Mackenzie et al., 2011). When compared to those without anxiety, older adults with anxiety have reported a greater prevalence of personality disorders such as avoidant and dependent personality disorders (Coolidge et al., 2000).

**Cognitive Impairment.** Older adults with anxiety often also suffer from cognitive impairment and dementia (Beaudreau et al., 2008; Forsell et al., 2003; Potvin et al., 2011; Seignourel et al., 2008; Sinoff & Werner, 2003; Wilson et al., 2011). Approximately 5% to 21% of older adult dementia patients have anxiety disorders (Feretti et al., 2001; Skoog, 1993). These prevalence estimates are greater when compared with those for cognitively intact persons (Hwang, Masterman, Ortiz, Fairbanks, & Cummings, 2004; Lyketsos et al., 2002; Tatsch et al., 2006). Individuals with anxiety symptoms have done poorly on assessments of cognitive functioning (Schultz, Moser, Bishop, & Ellingrod, 2005; Sinoff & Werner, 2003). Also, when compared to those without psychiatric disorders, those with GAD have shown poorer short-term memory (Mantella et al., 2007). Studies using community samples have found Alzheimer's disease to be positively associated with anxiety symptoms (Geda et al., 2004; Hwang et al., 2004).

It is possible that the prevalence of anxiety is higher in primary care settings than in the community at large. Krasucki et al. (1999) found that, in primary care settings, 30% of older adults present with generalized anxiety symptoms. Distressed older adults seeking help typically present to their primary care physician (Smyer & Gatz, 1995). Prevalence estimates of anxiety symptoms among older adult patients range from 15% in the geriatric hospital (Ames et al., 1994) to 56% in the general hospital (Ames & Tuckwell, 1994). Meanwhile, prevalence estimates of anxiety disorders range from 1% in the general hospital (Ames & Tuckwell, 1994) to 24% in primary care (Tolin et al., 2005). Older adults with anxiety disorders are less likely than older adults with depression, dementia, or any other mental disorder to receive treatment from a mental health specialist (Ettner & Hermann, 1997).

In an analysis of data from the 1997 National Ambulatory Medical Care Survey, a national probability sample survey of physician office visits, anxiety disorder diagnoses were assigned for 1.3% of visits by older patients, with anxiety disorder not otherwise specified as the most frequent diagnosis (Stanley, Roberts, Bourland, & Novy, 2001). Because evidence suggests that only approximately one-third of such cases are detected in primary care (e.g., Kessler, Lloyd, Lewis, & Gray, 1999), these data likely represent a substantial underestimate of the prevalence of anxiety in that setting. Furthermore, Levy, Conway, Brommelhoff, & Merikengas (2003) found that, compared to younger adults, older adults tend to minimize and underreport their anxiety symptoms. Thus the prevalence rate of older adults who experience anxiety may be underestimated (Levy et al., 2003).

There is a dearth of research on anxiety and anxiety disorders in older adults with hearing or visual impairment, with previous studies in this population focusing primarily on depression and functional impairment. However, one recent study by Brenes et al. (2005) found significantly higher levels of anxiety in a national sample of 1,002 older disabled women who reported experiencing visual problems. Overall, it appears that anxiety symptoms and syndromes are quite common in old age, and may be detectible at even higher levels in older adults with visual deficits.

## Consequences of Anxiety Disorders

The consequences of anxiety in late life are potentially serious. In a prospective investigation, anxiety did not generally remit spontaneously over two to three years (Livingston, Watkin, Milne, Manela, & Katona, 1997). Hypertension, hypoglycemia, and coronary heart disease can be worsened through chronic stress and anxiety (Hersen & Van Hasselt, 1992). Compared with men reporting no symptoms of anxiety, men in the Normative Aging Study reporting two or more anxiety symptoms had elevated risk of fatal coronary heart disease (Kawachi, Sparrow, Vokonas, & Weiss, 1994). Higher levels of anxiety have been associated with greater use of pain-relieving medications and more postoperative disability days for surgical patients (Taenzer, Melzack, & Jeans, 1986). Anxiety was also related to pain in a sample of nursing home residents (Casten, Parmelee, Kleban, Lawton, & Katz, 1995).

Anxiety symptoms and disorders are associated with increased fatigue, greater levels of chronic physical illness, increased disability (de Beurs et al., 1999), lower levels of well-being, worse life satisfaction, activity and functional limitations (Goncalves et al., 2010), social restriction (Norton et al., 2013), and inappropriate use of medical services among older adults (Martin, Bishop, Poon & Johnson, 2006; Brenes et al., 2005; de Beurs, Beekman, van Balkom, Deeg, van Dyck, & van Tilburg, 1999; Gentil et al., 2012; Hunt, Issakidis, & Andrews, 2002; Jones, Ames, Jeffries, Scarinci, & Brantley, 2001; Wetherell, Thorp, Patterson, Golshan, Jeste, & Gatz, 2004; Porensky et al., 2009; Wittchen, Carter, Pfister, Montgomery, & Kessler, 2000;). Studies have found a strong association between comorbid mood and anxiety disorders and severe insomnia (Brenes et al., 2009) that is associated with significant functional impairments (Soehner & Harvey, 2012). Substance use disorder often co-occurs with GAD (Magidson et al., 2011); specifically, social phobia has been found to be associated with alcohol use and dependence (Chou, 2009). Furthermore, a sample of older adults with GAD reported impairments on quality of life measures that were worse than impairments reported by comparable individuals who had serious medical conditions such as myocardial infarction or type II diabetes (Wetherell et al., 2004). It was also found that the reported quality of life impairments for the individuals diagnosed with GAD were comparable to the reported impairments by people with major depression. In cases of comorbid anxiety and depressive disorders, the likelihood of poor outcomes increases. Comorbid anxiety in late-life depression is associated with poorer treatment response and increased likelihood of dropout (Lenze et al., 2003). Also, older people with anxious depression report increased suicidality and reduced psychosocial support (Jeste et al., 2006).

In addition to direct relationships with poorer health care outcomes, anxiety and depression have been associated with markedly higher health care costs among primary care patients, even after adjustment for medical comorbidity (Simon, Ormel, VonKoff, & Barlow, 1995). Older adults with anxiety spend 50% more time with their primary care physician during office visits than older adults with no psychiatric diagnosis (Stanley et al., 2001). Taken altogether, these findings support the importance of treatment of anxiety in late life.

## Treatments

### Pharmacological Treatments

In part because of the tendency for older adults to present to primary care physicians, anxiolytic medications, including benzodiazepines, are the most common treatment for late life anxiety (Lenze, Pollock, Shear, Mulsant, Bharucha, & Reynolds, 2003). ECA data suggest that benzodiazepine use among the elderly is approximately 14%, higher than the rates for younger adults (Swartz, Landerman, George, Melville, & Blazer, 1991). A community survey of older adults in southern California showed that 20% had used benzodiazepines at least twice in the previous 12 months; these individuals were more than twice as likely as nonusers to take 10 or more drugs (Mayer-Oakes et al., 1993).

Benzodiazepine users are also more likely than nonusers to experience accidents requiring medical attention, due to increased risk of falls, hip fractures, and automobile accidents (Tamblyn, Abrahamowicz, du Berger, McLeod, & Bartlett, 2005). Older patients taking benzodiazepines are also more likely to develop disabilities in both mobility and activities of daily living (Gray et al., 2006). Benzodiazepines can impair memory and other cognitive functions (Benitez et al., 2008; Wengel, Burke, Ranno, & Roccaforte, 1993; Wetherell et al., 2005). These medications can also cause tolerance and withdrawal, interactions with other drugs, and toxicity (Krasucki, Howard, & Mann, 1999; Salzman & Lebowitz, 1991).

Although safer medications, particularly selective serotonin reuptake inhibitors (SSRIs), are often used to treat geriatric anxiety (National Institute for Health and Clinical Excellence, 2011), they can cause unpleasant side effects, and some older people prefer not to take them. Furthermore, SSRIs have not completely replaced benzodiazepines as a treatment for anxiety in older people (Keene, Eaddy, Nelson, & Warnes, 2005). Safe and effective alternative treatments for anxiety, appealing to an older population, are clearly needed.

## Psychosocial Treatments

The efficacy of evidence-based psychosocial interventions have been tested using randomized trials for geriatric anxiety and reviewed with emerging evidence of support for their use (Ayers et al., 2007) (Level A).

Several studies have provided some support for the use of relaxation training and cognitive behavior therapy (CBT) for treatment of anxiety (Ayers et al., 2007; Barrowclough et al., 2001; Gorenstein, Kleber, Mohlman, de Jesus, Gorman, & Papp, 2005; Hendriks et al., 2008; Hendriks et al., 2010; Mohlman, Gorenstein, Kleber, de Jesus, Gorman, & Papp, 2003; Stanley, Beck, et al., 2003; Stanley et al., 2009; Stanley, Hopko, et al., 2003; Wetherell, Gatz, & Craske, 2003) (Level A). In recent years, CBT has been shown to be superior to waitlist conditions, medication management-only conditions, supportive control conditions (e.g., supportive counseling, minimal contact, discussion group) and usual care (Barrowclough et al., 2001; Bradford, 2011; Gorenstein et al., 2005; Mohlman et al., 2003; Stanley, Beck, et al., 2003; Stanley, Hopko, et al., 2003; Wetherell et al., 2003) (Level A). Meta-analyses (Hendriks et al., 2008; Gould et al., 2012) have found CBT to be statistically and significantly more effective in treating older adults with anxiety (mainly GAD) than being on waitlist and other interventions (e.g. supportive counseling, discussion group).

In a study by Gorenstein and colleagues (2005), greater reductions in anxiety were not seen until a 6-month follow-up. In some of the other studies, compared to waitlist or

supportive control conditions, CBT also provided greater reductions in comorbid depression, as well as improvements in quality of life (Barrowclough et al., 2001; Stanley, Beck, et al., 2003; Stanley, Hopko, et al., 2003; Wetherell et al., 2003). In a recent study comparing CBT plus medication management with medication management alone, the combined approached was not found to be superior in reducing anxiety, worry, and total distress (Gorenstein et al., 2005). While these studies suggest that CBT is promising for the treatment of anxiety, Stanley, Beck, & Glassco (1996) found no differences between CBT and supportive psychotherapy on anxiety and depression reductions. Finally, in another review by Wetherell, Sorell, Thorp, & Patterson (2005), the authors assert that progressive muscle relaxation, CBT, and even supportive therapy have empirical support for their use in treating geriatric anxiety (Level B). However, the authors report that, when compared to waitlist and supportive control conditions, the psychological treatments with the greatest effect sizes (.20 or greater) are relaxation training (for anxiety symptoms) and CBT (for anxiety disorders).

**Summary: Take Home Points for Teaching**

- Anxiety is a common problem in late life.
- Anxiety is more prevalent than depressive disorders in later life.
- Generalized Anxiety Disorder (GAD) is the most common (prevalence rate 1.2%-7.3%).
- Subthreshold anxiety symptomology is higher than GAD (prevalence rate 20%-29%).
- Prevalence of anxiety symptoms is likely higher in primary care settings (~30%) than in the community at large or any other setting.
- Less common are phobias, Obsessive-Compulsive Disorder, and panic disorders.
- Comorbidity with depression is high (nearly 50%).
- It is difficult to disentangle anxiety from depression during assessment.
- Risk factors for anxiety include chronic health conditions, poor health self-perception, poor coping strategies, lack of social support, and lower level of education.
- Comorbidity with medical illnesses is high.
- Negative outcomes of anxiety include poor health outcomes, poor life satisfaction, significant functional impairment, increased Emergency Room and primary care visits, and higher medical costs.

- <u>Pharmacological Treatments</u>
    - Benzodiazepines are the most common medication treatment for late life anxiety; SSRIs are safely used but have unpleasant side effects.

- <u>Psychosocial Treatments</u>
    - Evidence has been found for Cognitive Behavioral Therapy (CBT) (Level A), Relaxation Training (Level A), and to a lesser extent Supportive Therapy (Level C).
    - CBT has the strongest evidence-to-date for treatment of Generalized Anxiety Disorder in comparison to control groups.

- CBT is better tolerated than pharmacotherapy.
- Relaxation training is viewed as a low-cost, effective intervention.
- CBT protocols can include problem-solving skills training, behavioral activation, sleep hygiene, life review, and memory aids.
- CBT can be conducted in individual and group formats.
- CBT has been found to be more effective than Supportive Therapy or Attention Placebo conditions.
- CBT combined with medication management has been found to be no better than CBT alone.

## Bibliography

Alwahhabi, F. (2003). Anxiety symptoms and generalized anxiety disorder in the elderly: A review. *Harvard Review of Psychiatry, 11* (4), 180-193.

Ames, D., Flynn, E., & Harrigan, S. (1994). Prevalence of psychiatric disorders among in-patients in an acute geriatric hospital. *Australian Journal of Aging*, *13*, 8-11.

Ames, D., & Tuckwell, V. (1994). Psychiatric disorders among elderly patients in a general hospital. *Medical Journal of Australia*, *160*, 671-675.

Artero, S., Astruc, B., Courtet, P., & Ritchie, K. (2006). Life-time history of suicide attempts and coronary artery disease in a community-dwelling elderly population. *International Journal of Geriatric Psychiatry, 21* (2), 108-112.

Ayers, C. R., Sorrell, J. T., Thorp, S., & Wetherell, J. (2007). Evidence-based psychological treatments for late-life anxiety. *Psychology and Aging, 22* (1) 8-17.

Barrowclough, C., King, P., Colville, J., Russell, E., Burns, A., & Tarrier, N. (2001). Randomized trial of the effectiveness of cognitive-behavioral therapy and supportive counseling for anxiety symptoms in older adults. *Journal of Consulting and Clinical Psychology, 69* (5), 756-762.

Bartels, S. J., Coakley, E., Oxman, T. E., Constantino, G., Oslin, D., Chen, H., … Sanchez, H. (2002). Suicidal ideation and death ideation in older primary care patients with depression, anxiety, and at-risk alcohol use. *The American Journal of Geriatric Psychiatry*, *10*, 417-427.

Beck, J. G., & Averill, P. M. (2004). Older adults. In D. Mennon, R. Heimberg, & C. Turk (Eds.), *Generalized Anxiety Disorder: Advances in research and practice* (pp. 409-433). New York: Guilford Press.

Beaudreau, S. A., & O'Hara, R. (2008). Late-life anxiety and cognitive impairment: A review. *The American Journal of Geriatric Psychiatry, 16* (10), 790-803.

Beekman, A., Bremmer, M., Deeg, D., van Balkom, A., Smit, J. H., de Beurs, E., ... van Tilburg, W. (1998). Anxiety disorders in later life: A report from the longitudinal aging study Amsterdam. *International Journal of Geriatric Psychiatry, 13* (10), 717-726.

Beekman, A., van, Balkom, A., Deeg, D., van, Dyck. R., & van Tilburg, W. (2000). Anxiety and depression in later life: Co-occurrence and communality of risk factors. *American Journal of Psychiatry, 157* (1), 89-95.

Benitez, C. I., Smith, K., & Vasile, R. G., Rende, R., Edelen, M. O., & Keller, M. B. (2008). Use of benzodiazepines and selective serotonin reuptake inhibitors in middle-aged and older adults with anxiety disorders: A longitudinal and prospective study. *The American Journal of Geriatric Psychiatry*, *16*, 5-13.

Blazer, D. G. (1997). Generalized anxiety disorder and panic disorder in the elderly: A review. *Harvard Review of Psychiatry, 5* (1), 18-27.

Blazer, D. G. (2003). Geriatric psychiatry. In *The American psychiatric publishing textbook of clinical psychiatry* (pp. 1535-1550). Washington, DC: American Psychiatric Publishing.

Bowling, A., Farquhar, M., & Grundy, E. (1996). Associations with changes in life satisfaction among three samples of elderly people living at home. *International Journal of Geriatric Psychiatry*, *11* (12), 1077-1087

Bradford, A., Cully, J., Rhoades, H., Kunik, M., Kraus-Schuman, C., Wilson, N., & Stanley, M. (2011). Early response to psychotherapy and long-term change in worry symptoms in older adults with generalized anxiety disorder. *The American Journal of Geriatric Psychiatry*, *19*, 347-356.

Brenes, G., Guralnik, J., Williamson, J., Fried, L., Simpson, C., Simonsick, E. M. (2005). The influence of anxiety on the progression of disability. *Journal of the American Geriatrics Society, 53* (1), 34-39.

Brenes, G. A., Miller, M.E., Stanley, M.A., & Williamson, J.D. (2009). Insomnia in older adults with generalized anxiety disorder. *The American Journal of Geriatric Psychiatry*, *17* (6), 465-472.

Byers, A. L., Yaffe, K., Covinsky, K. E., Friedman, M. B., & Bruce, M. L. (2010). High occurrence of mood and anxiety disorders among older adults. *Archives of General Psychiatry, 67* (5), 489-496.

Casten, R. J., Parmelee, P. A., Kleban, M. H., Lawton, M. P., & Katz, I. R. (1995). The relationships among anxiety, depression, and pain in a geriatric institutionalized sample. *Pain, 61* (2), 271-276.

Caminero, A. G., Blumentals, W. A., & Russo, L. J. (2005). Does panic disorder increase the risk of coronary heart disease? A cohort study of a national managed care database. *Psychosomatic Medicine*, *67*, 688–691.

Chou, K. L. (2009). Social anxiety disorder in older adults: evidence from the national epidemiologic survey on alcohol and related conditions. *Journal of Affective Disorders*, *119*, 76-83.

Coolidge, F. L., Segal, D. L., & Hook, J. N. (2000). Personality disorders and coping among anxious older adults. *Journal of Anxiety Disorders*, *14*, 157-172.

Davis, M. J., Moye, J., & Karel, M. J. (2002). Mental health screening of older adults in primary care. *Journal of Mental Health and Aging, 8* (2), 139-149.

De Beurs, E., Beekman, A., van Balkom, A., Deeg, D., van Dyck, R., & van Tilburg, W. (1999). Consequences of anxiety in older persons: Its effect on disability, well-being and use of health services. *Psychological Medicine, 29* (3), 583-593.

Deimling, G. T., Bowman, K. F., Sterns, S., Wagner, L. J., & Kahana, B. (2006). Cancer-related health worries and psychological distress among older adult, long-term cancer survivors. *Psycho-Oncology, 15* (4), 306 320.

Diala, C., & Muntaner, C. (2003). Mood and anxiety disorders among rural, urban, and metropolitan residents in the United States. *Community Mental Health Journal, 39* (3), 239-252.

Diefenbach, G. J., & Goethe, J. (2006). Clinical interventions for late-life anxious depression. *Clinical Interventions in Aging, 1* (1), 41-50.

Douchet, C., Ladouceur, R., Freeston, M. H., & Dugas, M. J. (1998). Worry themes and the tendency to worry in older adults. *Canadian Journal on Aging, 17*(4), 361-371.

Dowson C., Laing, R., & Barraclough, R. (2001).The use of the Hospital Anxiety and Depression Scale (HADS) in patients with chronic obstructive pulmonary disease: a pilot study. *New Zealand Medicine*, *114*, 454–457.

Ettner, S. L., & Hermann, R. C. (1997). Provider specialty choice among Medicare beneficiaries treated for psychiatric disorders. *Health Care Financing Review, 18* (3), 43-59.

Feretti, L., McCurry, S. M., Logsdon, R., Gibbons, L., & Teri, L. (2001). Anxiety and Alzheimer's disease. *Journal of General Psychiatry*, *14*, 52-58.

Flint, A.J. (2005). Anxiety and its disorders in late life: Moving the field forward. *The American Journal of Geriatric Psychiatry*, *17*, 117-123.

Flint, A. J. (2005). Generalized anxiety disorder in elderly patients: Epidemiology, diagnosis, and treatment options. *Drugs and Aging*, 22, 101-114.

Flint, A. J., & Rifat, S. L. (1997). Anxious depression in elderly patients: Response to antidepressant treatment. *The American Journal of Geriatric Psychiatry*, *5*, 107-115.

Forsell, Y., Palmer, K., & Fratglioni, L. (2003). Psychiatric symptoms/syndromes in elderly persons with mild cognitive impairment. Data from a cross-sectional study. *Acta Neurologica Scandavica Supplementum*, *179*, 25-28.

Fuentes, K., & Cox, B. J. (1997). Prevalence of anxiety disorders in elderly adults: A critical analysis. *Journal of Behavior Therapy and Experimental Psychiatry, 28* (4), 269 279.

Gagnon, N., Flint, A. J., Naglie, G., & Devins, G. M. (2005). Affective correlates of fear of falling in elderly persons. *The American Journal of Geriatric Psychiatry*, *13*, 7-14.

Geda, Y. E., Smith, G. E., & Knopman, D.S. (2004). De novo genesis of neuropsychiatric symptoms in Mild Cognitive Impairment (MCI). *International Psychogeriatric*, *16*, 51–60.

Goldstein, B., Herrmann, N., & Shulman, K. (2006). Comorbidity in bipolar disorder among the elderly: Results from an epidemiological community sample. *American Journal of Psychiatry. 163* (2), 319-321.

Goncalves, D. C., Pachana, N. A., & Byrne, G. J. (2010). Prevalence and correlates of generalized anxiety disorder among older adults in the Australian National Survey of Mental Health and Well-Being. *Journal of Affective Disorders*, *132*, 223-230.

Goodwin, J., Zhang, D., & Ostir, G. (2004). Effect of depression on diagnosis, treatment, and survival of older women with breast cancer. *Journal of the American Geriatrics Society, 52* (1), 106-111.

Gorenstein, E., Kleber, M., Mohlman, J., de Jesus, M., Gorman, J., & Papp, L. (2005). Cognitive-behavioral therapy for management of anxiety and medication taper in older adults. *American Journal of Geriatric Psychiatry, 13* (10), 901-909.

Gould, R. L., Coulson, M. C., & Howard, R. J. (2012). Efficacy of cognitive behavioral therapy for anxiety disorders in older people: A meta-analysis and meta-regression of randomized controlled trials. *The American Geriatrics Society*, *60*, 218-229.

Gray, S. L., LaCroix, A. Z., Hanlon, J. T., Penninx, B. W., Blough, D. K., Leveille, S. G., ... Buchner, D. M. (2006). Benzodiazepine use and physical disability in community-dwelling older adults. *Journal of the American Geriatrics Society, 54* (2), 224-230.

Grenier, S., Preville, M., & Boyer, R. (2011). The impact of DSM-IV symptom and clinical significant criteria on the prevalence estimates of subthreshold and threshold anxiety in the older adult population. *The American Journal of Geriatric Psychiatry*, *19*, 316-326.

Gum, A. M., King-Kallimanis, B., & Kohn, R. (2009). Prevalence of mood, anxiety, and substance abuse disorders for older Americans in the National Comorbidity Survey Replication. *The American Journal of Geriatric Psychiatry*, *17*, 769–781.

Hek, K., Tiemeier, H., Newson, R. S., Luijendijk, H. J., Hofman, A., & Mulder, C. L. (2011). Anxiety disorders and comorbid depression in community dwelling older adults. *International Journal of Methods In Psychiatric Research*, *20* (3), 157-168

Hendriks, G. J., Oude Voshaar, R. C., & Keijsers, G. P. (2008). Cognitive-behavioural therapy for late-life anxiety disorders: a systematic review and meta-analysis. *Acta Psychaitrica Scandinavica*, *117*, 403–411.

Hendriks, G.J., Keijsers, G.P., Kampman, M., Oude Voshaar, R.C., Verbraak, M.J., Broekman, T.G., & Hoogduin, C.A. (2010). A randomized controlled study of paroxetine and cognitive-behavioural therapy for late-life panic disorder. *Acta Psychaitrica Scandinavica*, *122*, 11-19.

Hersen, M., & Van Hasselt, V. B. (1992). Behavioral assessment and treatment of anxiety in the elderly. *Clinical Psychology Review, 12* (6), 619-640.

Hopko, D. R., Bourland, S. L., & Stanley, M. A. (2000). Generalized anxiety disorder in older adults: Examining the relation between clinician severity rating and patient self-report measures. *Depression & Anxiety, 12*, 217-225.

Hunt, C., Issakidis, C., & Andrews, G. (2002). DSM-IV generalized anxiety disorder in the Australian national survey of mental health and well-being. *Psychological Medicine, 32* (4), 649-659.

Hwang, T. J., Masterman, D. L., & Ortiz, F (2004). Mild cognitive impairment is associated with characteristic neuropsychiatric symptoms. *Alzheimer Disease & Associative Disorders*, *18*, 17–21.

Hybels, C. F., & Blazer, D. G. (2003). Epidemiology of late-life mental disorders. *Clinical Geriatric Medicine*, *19*, 663-696.

Jeste, N. D., Hays, J. C., & Steffens, D. C. (2006). Clinical correlates of anxious depression among elderly patients with depression. *Journal of Affective Disorders, 90* (1), 37 41.

Jones, G. N., Ames, S. C., Jeffries, S. K., Scarinci, I. C., & Brantley, P. J. (2001). Utilization of medical services and quality of life among low-income patients with generalized

anxiety disorder attending primary care clinics. *International Journal of Psychiatry in Medicine, 31* (2), 183-198.

Kabacoff, R. I., Segal, D. L., Hersen, M., & Van Hasselt, V. B. (1997). Psychometric properties and diagnostic utility of the Beck Anxiety Inventory and the State-Trait Anxiety Inventory with older adult psychiatric outpatients. *Journal of Anxiety Disorders*, *11*, 33-47.

Karajgi, B., Rifkin, A., Doddi, S., & Kolli, R. (1990). The prevalence of anxiety disorders in patients with chronic obstructive pulmonary disease. *American Journal of Psychiatry, 147* (2), 200-201.

Kawachi, I., Sparrow, D., Vokonas, P. S., & Weiss, S. T. (1994). Symptoms of anxiety and risk of coronary heart disease. The normative aging study. *Circulation, 90* (5), 2225-2229.

Keene, M. S., Eaddy, M. T., Nelson, W. W., & Sarnes, M. W. (2005). Adherence to Paroxetine CR compared with Paroxetine IR in a medicare-eligible population with anxiety disorders. *American Journal of Managed Care, 11* (12 Suppl), S362-369.

Kessler, D., Lloyd, K., Lewis, G., & Gray, D. P. (1999). Cross sectional study of symptom attribution and recognition of depression and anxiety in primary care. *British Medical Journal, 318*, 436-439.

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the national comorbidity survey replication. *Archives of General Psychiatry, 62*, 593-602.

Kim, H. F., Braun, U., & Kunik, M. E. (2001). Anxiety and depression in medically ill older adults. *Journal of Geropsychology, 7* (2), 117-130.

King-Kallimanis, B., Gum, A.M., & Kohn, R. (2009) Comorbidity of depressive and anxiety disorders for older Americans in the national comorbidity survey-replication. *The American Journal of Geriatric Psychiatry*, *17* (9), 782–792.

Krasucki, C., Howard, R., & Mann, A. (1998). Relationship between anxiety disorders and age. *International Journal of Geriatric Psychiatry, 13* (2), 79-99.

Krasucki, C., Howard, R., & Mann, A. (1999). Anxiety and its treatment in the elderly. *International Psychogeriatrics, 11* (1), 25-45.

Kubzansky, L. D., Cole, S. R., Kawachi, I., Vokonas, P., & Sparrow, D. (2006). Shared and unique contributions of anger, anxiety, and depression to coronary heart disease: A prospective study in the normative aging study. *Annals of Behavioral Medicine, 31* (1), 21-29.

Lang, A. J., & Stein, M. B. (2001). Anxiety disorders. How to recognize and treat the medical symptoms of emotional illness. *Geriatrics, 56* (5), 31-34.

Le Roux, H., Gatz, M., & Wetherell, J. L. (2005). Age at onset of generalized anxiety disorder in older adults. *American Journal of Geriatric Psychiatry, 13* (1), 23-30.

Lenze, E. J., Mulsant, B. H., Shear, M. K., Schulberg, H. C., Dew, M. A., Begley, A. E., … Reynolds, C. F. (2000). Comorbid anxiety disorders in depressed elderly patients. *American Journal of Psychiatry*, *157*, 722-728.

Lenze, E., Mulsant, B., Dew, M., Shear, K., Houck, P., Pollock, B. G., & Reynolds, C. F. (2003). Good treatment outcomes in late-life depression with comorbid anxiety. *Journal of Affective Disorders, 77* (3), 247 254.

Lenze, E., Mulsant, B. H., Mohlman, J., Shear, K., Dew, M. A., Schulz, R., … Reynolds, C. F. (2005). Generalized anxiety disorder in late life: Lifetime course and comorbidity with major depressive disorder. *American Journal of Geriatric Psychiatry, 13* (1), 77 80.

Lenze, E., Pollock, B., Shear, K., Mulsant, B., Bharucha, A., & Reynolds, C. (2003).Treatment considerations for anxiety in the elderly. *CNS Spectrum, 8* (12, Suppl3), 6-13.

Lenze, E. J., & Wetherell, J. L. (2011). Anxiety disorders. New developments in old age. *American Journal of Geriatric Psychiatry*, *19*, 301-304.

Lenze, E. J., & Wetherell, J. L. (2009). Bringing the bedside to the bench and then to the community: A prospectus for intervention research in late-life anxiety disorders. *International Journal of Geriatric Psychiatry, 24,* 1-14.

Levy, B., Conway, K., Brommelhoff, J., & Merikengas, K. (2003). Intergenerational differences in the reporting of elders' anxiety. *Journal of Mental Health and Aging, 9* (4), 233-241.

Livingston, G., Watkin, V., Milne, B., Manela, M., & Katona, C. (1997). The natural history of depression and the anxiety disorders in older people: The Islington community study. *Journal of Affective Disorders, 46* (3), 255-262.

Lustman, P. J., Griffith, L. S., Clouse, R. E., & Cryer, P. E. (1986). Psychiatric illness in diabetes mellitus: relationship to symptoms and glucose control. *Journal of Nervous & Mental Disease*, *174*, 736–742.

Mackenzie, C. S., Reynolds, K., Chou, K. L., Pagura, J., & Sareen, J. (2011). Prevalence and correlates of generalized anxiety disorder in a national sample of older adults. *The American Journal of Geriatric Psychiatry*, *19*, 305-315.

Mantella, R. C., Butters, M. A., & Dew, M. A. (2007). Cognitive impairment in late-life generalized anxiety disorder. *The American Journal of Geriatric Psychiatry*, *15*, 673-679.

Martin, P., Bishop, A., Poon, L., & Johnson, M. A. (2006). Influence of personality and health behaviors on fatigue in late and very late life. *Journals of Gerontology: Series B: Psychological Sciences and Social Sciences, 61B* (3), 161-166.

Mayer-Oakes, S. A., Kelman, G., Beers, M. H., De Jong, F., Matthias, R., Atchison, K. A., … Schweitzer, S. O. (1993). Benzodiazepine use in older, community-dwelling southern Californians: Prevalence and clinical correlates. *The Annals Of Pharmacotherapy, 27* (4), 416-421.

Menza, M. A., Robertson-Hoffman, D. E., & Bonapace, A. S. (1993). Parkinson's disease and anxiety: comorbidity with depression. *Biological Psychiatry*, *34*, 465–470.

Mitte, K. (2005). Meta-analysis of cognitive-behavioral treatments for Generalized Anxiety Disorder: A comparison with pharmacotherapy. *Psychological Bulletin, 131* (5), 785-795.

Mohlman, J., Gorenstein, E. E., Kleber, M., de Jesus, M., Gorman, J. M., & Papp, L. A. (2003). Standard and enhanced cognitive-behavior therapy for late-life generalized anxiety disorder. *American Journal of Geriatric Psychiatry, 11* (1), 24-32.

Mulsant, B. H., & Wright, B. A. (1996). Medical assessment. In M. Hersen, & V. B. Van Hasselt (Eds.), *Psychological treatment of older adults: An introductory text* (pp. 91-101). New York: Plenum Press.

Myers, J. K., Weissman, M. M., Tischler, G. L., Holzer, C., Leaf, P., Orvaschel, H., … Kramer, M. (1984). Six-month prevalence of psychiatric disorders in three communities. *Archives of General Psychiatry, 41*, 959-967.

National Institute for Health and Clinical Excellence (2011). *Generalized anxiety disorder (with or without agoraphobia) in adults: Clinical Guideline 113*. Retrieved from http://www.nice.org.uk/guidance/CG113

Norton, J., Ancelin, M. L., Stewart, R., Berr, C., & Ritchie, K. (2012). Anxiety symptoms and disorder predict activity limitations in the elderly, *Journal of Affective Disorders*, *141* (2-3), 276-285.

Ostir, G. V., & Goodwin, J. S. (2006). Anxiety in persons 75 and older: Findings from a tri-ethnic population. *Ethnicity & Disease, 16* (1), 22-27.

Palmer, B. W., Jeste, D. V., & Sheikh, J. I. (1997). Anxiety disorders in the elderly: DSM-IV and other barriers to diagnosis and treatment. *Journal of Affective Disorders, 46*, 183-190.

Parmelee, P. A., Katz, I. R., & Lawton, M. (1993). Anxiety and its association with depression among institutionalized elderly. *The American Journal of Geriatric Psychiatry*, *1*, 46-58.

Pontone, G. M., Williams, J. R., & Anderson, K. E. (2009). Prevalence of anxiety disorders and anxiety subtypes in patients with Parkinson's disease. *Movement Disorder*, *12* (9), 1333-1338.

Porensky E. K., Dew, M.A., & Karp, J. F. (2009). The burden of late-life generalized anxiety disorder: effects on disability, health-related quality of life, and healthcare utilization. *The American Journal of Geriatric Psychiatry*, *17*, 473–482.

Potvin, O., Forget, H., Grenier, S., Preville, M., & Hudon, C. (2011). Anxiety, depression, and 1-year incident cognitive impairment in community-dwelling older adults. *The Journal of American Geriatric Society*, *59*, 1421-1428.

Regier, D. A., Boyd, J. H., Burke, J. D., Rae, D. S., Myers, J. K., Kramer, M., ... Locke, B. Z. (1988). One-month prevalence of mental disorders in the United States: Based on five epidemiologic catchment area sites. *Archives of General Psychiatry, 45*, 977-986.

Sajatovic, M., Blow, F. C., & Ignacio, R. V. (2006). Psychiatric comorbidity in older adults with bipolar disorder. *International Journal of Geriatric Psychiatry, 21* (6), 582-587.

Salzman, C., & Lebowitz, B. (1991). *Anxiety in the elderly: Treatment and research*. New York, NY: Springer.

Schoevers, R. A., Beekman, A. T., Deeg, D. J., Jonker, C., & Van Tilburg, W. (2003). Comorbidity and risk patterns of depression, generalized anxiety disorder and mixed anxiety-depression in later life: results from the longitudinal aging study Amsterdam. *International Journal of Geriatric Psychiatry*, *18*, 994-1001.

Schoevers, R. A., Deeg, D. J. H., van Tilburg, W., & Beekman, A. T. F. (2005). Depression and generalized anxiety disorder. *The American Journal of Geriatric Psychiatry*, *13*, 31-39.

Simon, G., Ormel, J., VonKorff, M., & Barlow, W. (1995). Health care costs associated with depressive and anxiety disorders in primary care. *American Journal of Psychiatry, 152* (3), 352-357.

Sinoff, G., & Werner, P. (2003). Anxiety disorder and accompanying subjective memory loss in the elderly as a predictor of future cognitive decline. *International Journal of Geriatric Psychiatry*, *18*, 951-959.

Skoog, I. The prevalence of psychotic, depressive and anxiety syndromes in demented and non-demented 85-year-olds. *International Journal of Geriatric Psychiatry*, *8*, 247-253.

Smoller, J. W., Pollack, M. H., & Wassertheil-Smoller, S. (2007). Panic attacks and risk of incident cardiovascular events among postmenopausal women in the women's health initiative observational study. *Archives of General Psychiatry*, *64,* 1153–1160.

Smyer, M. A., & Gatz, M. (1995). The public policy context of mental health care for older adults. *The Clinical Psychologist, 48*, 31-36.

Stanley, M., Beck, J., & Glassco, J. (1996). Treatment of generalized anxiety in older adults: A preliminary comparison of cognitive-behavioral and supportive approaches. *Behavior Therapy, 27*, 565-581.

Stanley, M. A., Beck, J. G., Novy, D. M., Averill, P. M., Swann, A. C., Diefenbach, G. J., & Hopko, D. R. (2003). Cognitive-behavioral treatment of late-life generalized anxiety disorder. *Journal of Consulting and Clinical Psychology, 71* (2), 309-319.

Stanley, M. A., Hopko, D. R., Diefenbach, G. J., Bourland, S. L., Rodriguez, H., & Wagener, P. (2003). Cognitive-behavior therapy for late-life generalized anxiety disorder in primary care: Preliminary findings. *American Journal of Geriatric Psychiatry, 11* (1), 92-96.

Stanley, M. A., Roberts, R. E., Bourland, S. L., & Novy, D. M. (2001). Anxiety disorders among older primary care patients. *Journal of Clinical Geropsychology, 7* (2), 105-116.

Stanley, M. A., Wilson, N. L, Novy, D. M., Rhoades, H. M., Wagener, P. D., Greisinger, A. J., … Kunik, M. E. (2009). Cognitive behaviour therapy for generalized anxiety disorder among older adults in primary care: A randomized clinical trial. *Journal of the American Medical Association, 301*, 149-167.

Stein, M. B., Heuser, I. J., Juncos, J. L., & Uhde, T. W. (1990). Anxiety disorders in patients with Parkinson's disease. *American Journal of Psychiatry, 147* (2), 217-220.

Swartz, M., Landerman, R., George, L., Melville, M. (1991). Benzodiazepine anti-anxiety agents: Prevalence and correlates of use in a southern community. *American Journal of Public Health, 81* (5), 592-596.

Taenzer, P., Melzack, R., & Jeans, M. E. (1986). Influence of psychological factors on postoperative pain, mood and analgesic requirements. *Pain, 24* (3), 331-342.

Tamblyn, R., Abrahamowicz, M., du Berger, R., McLeod, P., & Bartlett, G. (2005). A 5-year prospective assessment of the risk associated with individual Benzodiazepines and doses in new elderly users. *Journal of the American Geriatric Society, 53* (2), 233-241.

Therrien Z., Hunsley, J. (2012). Assessment of anxiety in older adults: A systematic review of commonly used measures. *Aging Mental Health*, *16*, 1-16.

Thorp, S. R., Ayers, C. R., Nuevo, R., Stoddard, J. A., Sorrell, J. T., & Wetherell, J. L. (2009). Meta-analysis comparing different behavioural treatments for late-life anxiety. *The American Journal of Geriatric Psychiatry*, *17*, 105-115.

Tolin, D., Robinson, J., Gaztambide, S., & Blank, K. (2005). Anxiety disorders in older Puerto Rican primary care patients. *The American Journal of Geriatric Psychiatry*, *13*, 150-156.

Torado, J. F., Shen, B. J., & Raffa, S. D. (2007). Prevalence of anxiety disorders in men and women with established coronary heart disease. *Journal of Cardiopulmonary Rehabilitation, 27*, 86–91.

Tully, P. J., Baker, R. A., & Knight, J. L. (2008). Anxiety and depression as risk factors for mortality after coronary artery bypass surgery. *Journal of Psychosomatic Research, 64,* 285–290.

U.S. Department of Health and Human Services. (1999). Mental health: A report of the surgeon general.

Vink D. (2008). Risk factors for anxiety and depression in the elderly: A review. *Journal of Affective Disorders, 106,* 29–44.

Vogele C., & von Leupoldt A. (2008). Mental disorders in chronic obstructive pulmonary disease. *Respiratory Medicine, 102,* 764–773.

Wengel, S., Burke, W., Ranno, A., & Roccaforte, W. (1993). Use of benzodiazepines in the elderly. *Psychiatric Annals, 23* (6), 325-331.

Wetherell, J., Gatz, M., & Craske, M. G. (2003). Treatment of generalized anxiety disorder in older adults. *Journal of Consulting and Clinical Psychology, 71* (1), 31-40.

Wetherell, J., Gatz, M., & Pedersen, N. L. (2001). Longitudinal analysis of anxiety and depressive symptoms. *Psychology and Aging, 16* (2), 187-195.

Wetherell, J., Lenze, E. J., & Stanley, M. A. (2005). Evidence-Based Treatment of Geriatric Anxiety Disorders*. Psychiatric Clinics of North America, 28,* 871-896.

Wetherell, J., Sorell, J., Thorp, S., & Patterson, T. (2005). Psychological interventions for late-life anxiety: A review and early lessons from the CALM study. *Journal of Geriatric Psychiatry and Neurology*, *18* (2), 72-82.

Wetherell, J. Thorp, S., Patterson, T., Golshan, S., Jeste, D., & Gatz, M. (2004). Quality of life in geriatric generalized anxiety disorder: A preliminary investigation. *Journal of Psychiatric Research, 38* (3), 305-312.

Wilson, R. S., Begeny, C. T., & Boyle, P.A. (2011). Vulnerability to stress, anxiety, and development of dementia in old age. *The American Journal of Geriatric Psychiatry, 19*, 327-334.

Wittchen, H. U., Carter, R. M., Pfister, H., Montgomery, S. A., & Kessler, R. C. (2000). Disabilities and quality of life in pure and comorbid generalized anxiety disorder and major depression in a national survey. *International Clinical Psychopharmacology, 15* (6), 319-328.

Wolitzky-Taylor, K. B., Castriotta, N., & Lenze, E. J. (2010). Anxiety disorders in older adults: A comprehensive review. *Depression & Anxiety, 27,* 190–211.

Wragg, R. E., & Jeste, D. V. (1989). Overview of depression and psychosis in Alzheimer's disease. *American Journal of Psychiatry, 146* (5), 577-587.

Yohannes, A., Baldwin, R., & Connolly, M. (2000). Depression and anxiety in elderly outpatients with chronic obstructive pulmonary disease: prevalence, and validation of the BASDEC screening questionnaire. *International Journal of Geriatric Psychiatry, 15,* 1090–1096.