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# Editorial

# Anxiety disorders in Late Life

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# Introduction

In the United States, anxiety disorders are the most prevalent group of psychiatric disorders [1]. They cause significant social and functional impairments in individuals who are affected by these disorders [2]. Current data indicates that the prevalence of anxiety disorders in greater in the older adults than previously acknowledged [3]. The rates of anxiety symptoms that did meet the criteria for a psychiatric diagnosis in older adults were 15% to 20% in the general community and primary care samples [4]. The National Comorbidity Survey Replication (NCS-R) found that among adults older than 60 years in age, the prevalence of any anxiety disorder was 15.3%. Among the anxiety disorders, specific phobia was the most prevalent (7.5%) followed by social phobia (6.6%), generalized anxiety disorder (GAD) (3.6%), posttraumatic stress disorders (PTSD) (2.5%), panic disorder (2%), agoraphobia without panic (1%) and obsessive compulsive disorder (OCD) (0.7%) [1].

# **Risk factors**

The risk factors for late life anxiety include chronic medical illnesses, disability, and major illness in spouse [3]. Other known risk factors included personality traits of neuroticism and low self-efficacy. In a longitudinal study, the onset of anxiety was best predicted by having a partner who developed a major illness [5]. However, older age and the presence of cognitive dysfunction are not known risk factors for the development of late life anxiety disorders. The presence of multiple risk factors concurrently appears to have an additive effect [5].

### Consequences

In older adults the presence of anxiety is associated with reduced physical activity & functional status, poorer self-perceptions of health, decreased life satisfaction and increased loneliness [6-8]. Anxiety is also associated with decreased quality of life, increased service use and the overall greater cost of care [9,10]. The National Epidemiologic Survey on Alcohol and Related Conditions found that majority of individuals with GAD had a co-morbid mood or anxiety disorders [11]. In addition approximately one-quarter of individuals also met the criteria for a personality disorder. Data also indicates that higher levels of anxiety and vulnerability to stress are associated with increased risk of Alzheimer's disease (AD) and a more rapid decline in global cognition [12].

# Assessments

Anxiety disorders in late life are often under-recognized and undertreated [4]. One study found that among older adults, primary care physicians only correctly made the diagnosis of any anxiety disorder in approximately 9% of the cases [13]. One reason for poor recognition include of anxiety disorders in the elderly is that the physical symptoms associated with anxiety especially sleep disturbances, fatigue, restlessness, difficulty-concentrating overlap with medical disorders that often occur in older adults. In addition, the current diagnostic criteria for anxiety disorders were developed for use in younger adults and hence are not sensitive enough to detect these disorders in older adults [14]. Furthermore, late life anxiety disorders are often co-morbid with depression, substance use disorders and cognitive disorders resulting in greater complexity in making the appropriate diagnosis [14].

A thorough history is an essential first step in making a diagnosis of an anxiety disorder in late life [14]. Additionally, a corroborative history should be obtained from a well-informed family member or significant other [15]. Furthermore, a mental status examination, formal cognitive testing, physical examination and laboratory testing are essential parts to the complete work-up of an individual with anxiety disorder. Standardized assessment scales like the Beck Anxiety Inventory (BAI) or the Hamilton Anxiety Rating Scale (HARS) will aid in qualifying and quantifying the symptoms of anxiety disorders [16,17]. Neuropsychological testing may be needed in cases where there is the co-morbid personality disorder and /or cognitive disorder.

# Prevention

One study indicated that the stepped-care program where the participants sequentially received a watchful waiting approach, cognitive behavior therapy-based bibliotherapy, cognitive behavior therapy-based problem-solving treatment and a referral to a primary care clinician for medications, if required reduced the incidence of anxiety disorders in late life by almost 50% [18]. Additionally this care program was found to be cost-effective [19].

# Treatments

### A. Non-pharmacological

A meta-analysis of non-pharmacological interventions for late-life anxiety disorders that included a total of fifteen outcome studies found that psychological interventions were more effective than no treatment on self-rated and clinician-rated measures of anxiety with an effect size of 0.55 [20]. In another meta-analysis the investigators found that treatments for older adults with anxiety symptoms were on average, more effective than active control conditions [21]. The effect sizes were comparable to CBT for anxiety in the general population or for pharmacotherapy in anxious older adults. CBT (alone or augmented with relaxation therapy (RT)) did not seem to add anything beyond RT alone.

### **B.** Pharmacological

A summary four studies of benzodiazepines for the treatment

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of anxiety disorders indicate that three of the four benzodiazepines used in the studies are not available in the US (abecarnil, alpidem, Ketazolam) [22-25]. Also, these studies were of short duration as they lasted between 3 and 6 weeks. However, these drugs reduced anxiety to a greater extent than placebo and were fairly well tolerated.

Four RCTs of antidepressants indicates that these medications are helpful in the treatment of late life anxiety disorders [26-29]. In a study by Sheikh and Swales, twenty-five older adults (55 to 73 years in age) with a DSM-III-R diagnosis of panic disorder were randomized to receive alprazolam, imipramine or placebo for eight weeks [26]. Both alprazolam and imipramine reduced the number of panic attacks per week and resulted in an improvement on the anxiety and depression scales at the end of the study when compared to baseline. Additionally, both drugs were well tolerated and their daily doses were about half the normal adult doses. In a pooled secondary analysis, Katz et al included data from one hundred and eighty four individuals  $\geq 60$  years in age with a DSM-IV diagnosis of GAD [27]. The participants received fixed or flexible doses of venlafaxine ER with a dose range of 37.5 to 225 mg a day or matched placebo. On the Clinical Global Impression of Improvement (CGI-I) 66% of the individuals in the venlafaxine ER group responded when compared with 41% in the placebo group (P <0.01). Approximately, 23% of older adults in the venlafaxine ER group discontinued treatment prematurely when compared to 31% of the individuals in the placebo group. The investigators concluded that venlafaxine ER is safe and well tolerated in older adults for the treatment of GAD.

In a RCT, thirty-four participants  $\geq$  60 years in age with a DSM-IV diagnosis of anxiety disorder (mainly GAD) were randomly assigned to receive either citalopram or placebo for a period of eight weeks [28]. Eleven (65%) of the seventeen citalopram-treated participants responded by 8 weeks when compared to four (24%) of the seventeen placebo-treated participants. The most common side effects in both groups were dry mouth, nausea and fatigue. The investigators concluded that citalopram shows efficacy in the treatment of latelife anxiety disorders. Alaka et al conducted a flexible-dosed study to evaluate the efficacy and safety of duloxetine 30 to 120 mg once daily for the treatment of GAD in older adults [29]. At week 10, duloxetine was superior to placebo on mean changes from baseline on the rating scales (P<0.001). Treatment-emergent adverse events occurred in  $\geq$ 5% of duloxetine-treated individuals with a rate that was twice that of placebo including constipation, dry mouth and somnolence. The investigators concluded that treatment with duloxetine improved symptoms of anxiety and functioning in older adults with GAD and the drug's safety profile was consistent with previous GAD studies.

In a sequenced treatment that combined pharmacotherapy with cognitive-behavioral therapy (CBT) for individuals with GAD who were  $\geq 60$  years of age, the participants initially received 12 weeks of open-label escitalopram [30]. Then, these individuals were randomly assigned to one of four groups: 16 weeks of treatment with escitalopram (10 to 20 mg a day) plus modular CBT, followed by 28 weeks of maintenance escitalopram; escitalopram alone, followed by maintenance escitalopram; escitalopram plus CBT, followed by pill placebo; and escitalopram alone, followed by placebo. The investigators found that escitalopram augmented with CBT improved symptoms on the rating scales more that escitalopram alone. However, both escitalopram and CBT prevented relapses more often than placebo.

Available data indicates that any psychotherapeutic modality

is better than no treatment for the treatment of anxiety disorders in late life. Among pharmacotherapeutic agents, benzodiazepines and antidepressants have shown benefit in treating anxiety disorders when compared to placebo.

# Conclusions

Available evidence indicates that anxiety disorders are fairly common in late life. They are also associate with significant comorbidity and mortality in late life. These disorders are often underdiagnosed or misdiagnosed in late life due to their symptomatic overlap with medical conditions, drug effects and the lack of standard diagnostic criteria developed specifically for detecting anxiety disorders in older individuals. Current data indicates efficacy for both psychotherapeutic and pharmacotherapeutic modalities for anxiety disorders in late life.

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#### References

- Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, et al. (2005) Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. Arch Gen Psychiatry 62:593-602.
- Mendlowicz MV, Stein MB (2000) Quality of life in individuals with anxiety disorders. Am J Psychiatry 157: 669-682.
- Beekman AT, Bremmer MA, Deeg DJ, van Balkom AJ, Smit JH, et al. (1998) Anxiety disorders in later life: a report from the Longitudinal Aging Study Amsterdam. Int J Geriatr Psychiatry 13: 717-726.
- Wetherell JL, Lenze EJ, Stanley MA (2005) Evidence-based treatment of geriatric anxiety disorders. Psychiatr Clin North Am 28: 871-896, ix.
- de Beurs E, Beekman A, Geerlings S, Deeg D, Van Dyck R, et al. (2001) On becoming depressed or anxious in late life: similar vulnerability factors but different effects of stressful life events. Br J Psychiatry 179: 426-431.
- Tinetti ME, Inouye SK, Gill TM, Doucette JT (1995) Shared risk factors for falls, incontinence, and functional dependence. Unifying the approach to geriatric syndromes. JAMA 273: 1348-1353.
- Porensky EK, Dew MA, Karp JF, Skidmore E, Rollman BL, et al. (2009) The burden of late-life generalized anxiety disorder: effects on disability, healthrelated quality of life, and healthcare utilization. Am J Geriatr Psychiatry 17: 473-482.
- de Beurs E, Beekman AT, van Balkom AJ, Deeg DJ, van Dyck R, et al. (1999) Consequences of anxiety in older persons: its effect on disability, well-being and use of health services. Psychol Med 29: 583-593.
- Porensky EK, Dew MA, Karp JF, Skidmore E, Rollman BL, et al. (2009) The burden of late-life generalized anxiety disorder: effects on disability, healthrelated quality of life, and healthcare utilization. Am J Geriatr Psychiatry 17: 473-482.
- Vasiliadis HM, Dionne PA, Préville M, Gentil L, Berbiche D, et al. (2013) The excess healthcare costs associated with depression and anxiety in elderly living in the community. Am J Geriatr Psychiatry 21: 536-548.
- Mackenzie CS, Reynolds K, Chou KL, Pagura J, Sareen J (2011) Prevalence and correlates of generalized anxiety disorder in a national sample of older adults. Am J Geriatr Psychiatry 19: 305-315.
- Wilson RS, Begeny CT, Boyle PA, Schneider JA, Bennett DA (2011) Vulnerability to stress, anxiety, and development of dementia in old age. Am J Geriatr Psychiatry 19: 327-334.
- Calleo J, Stanley MA, Greisinger A, Wehmanen O, Johnson M, et al. (2009) Generalized anxiety disorder in older medical patients: diagnostic recognition, mental health management and service utilization. J Clin Psychol Med Settings 16:178-85.
- Kogan JN, Edelstein BA, McKee DR (2000) Assessment of anxiety in older adults: current status. J Anxiety Disord 14: 109-132.
- Seignourel PJ, Kunik ME, Snow L, Wilson N, Stanley M (2008) Anxiety in dementia: a critical review. Clin Psychol Rev 28: 1071-1082.

- 16. Stanley MA, Beck JG (2000) Anxiety disorders. Clin Psychol Rev 20: 731-754.
- Beck JG, Stanley MA, Zebb BJ (1996) Characteristics of generalized anxiety disorder in older adults: a descriptive study. Behav Res Ther 34: 225-234.
- van't Veer-Tazelaar PJ, van Marwijk HW, van Oppen P, van Hout HP, van der Horst HE, et al. (2009) Stepped-care prevention of anxiety and depression in late life: a randomized controlled trial. Arch Gen Psychiatry 66: 297-304.
- Van't Veer-Tazelaar P, Smit F, van Hout H, van Oppen P, van der Horst H, et al. (2010) Cost-effectiveness of a stepped care intervention to prevent depression and anxiety in late life: randomised trial. Br J Psychiatry 196: 319-325.
- Nordhus IH, Pallesen S (2003) Psychological treatment of late-life anxiety: an empirical review. J Consult Clin Psychol 71: 643-651.
- Thorp SR, Ayers CR, Nuevo R, Stoddard JA, Sorrell JT, et al. (2009) Metaanalysis comparing different behavioral treatments for late-life anxiety. Am J Geriatr Psychiatry 17: 105-115.
- Koepke HH, Gold RL, Linden ME, Lion JR, Rickels K (1982) Multicenter controlled study of oxazepam in anxious elderly outpatients. Psychosomatics 23: 641-645.
- 23. Bresolin N, Monza G, Scarpini E, Scarlato G, Straneo G, et al. (1988) Treatment of anxiety with ketazolam in elderly patients. Clin Ther 10: 536-542.
- 24. Frattola L, Piolti R, Bassi S, Albizzati MG, Cesana BM, et al. (1992) Effects of

alpidem in anxious elderly outpatients: a double-blind, placebo-controlled trial. Clin Neuropharmacol 15: 477-487.

- Small GW, Bystritsky A (1997) Double-blind, placebo-controlled trial of two doses of abecarnil for geriatric anxiety. J Clin Psychiatry 58 Suppl 11: 24-29.
- Sheikh JI, Swales PJ (1999) Treatment of panic disorder in older adults: a pilot study comparison of alprazolam, imipramine, and placebo. Int J Psychiatry Med 29: 107-117.
- 27. Katz IR, Reynolds CF 3rd, Alexopoulos GS, Hackett D (2002) Venlafaxine ER as a treatment for generalized anxiety disorder in older adults: pooled analysis of five randomized placebo-controlled clinical trials. J Am Geriatr Soc 50: 18-25.
- Lenze EJ, Mulsant BH, Shear MK, Dew MA, Miller MD, et al. (2005) Efficacy and tolerability of citalopram in the treatment of late-life anxiety disorders: results from an 8-week randomized, placebo-controlled trial. Am J Psychiatry 162: 146-150.
- 29. Alaka KJ, Noble W, Montejo A, Dueñas H, Munshi A, et al. (2014) Efficacy and safety of duloxetine in the treatment of older adult patients with generalized anxiety disorder: a randomized, double-blind, placebo-controlled trial. Int J Geriatr Psychiatry 29: 978-986.
- Wetherell JL, Petkus AJ, White KS, Nguyen H, Kornblith S, et al. (2013) Antidepressant medication augmented with cognitive-behavioral therapy for generalized anxiety disorder in older adults. Am J Psychiatry 170: 782-789.

Page 3 of 3