

Prevalent mental health disorders in the aging population: issues of comorbidity and functional disability - Mental Health Disorders in Aging

Older adults are as vulnerable as younger persons to the most prevalent mental health disorders in our population--depression, anxiety, and alcohol abuse. However, less is known about them than about acquired cognitive disorders such as dementia and delirium, which are more troublesome for elders than for younger adults. It is estimated that up to 11% of persons over age 65 and 36% of persons over age 85 have some form of dementia (Rojiani & Morgan, 2000). Gottlieb (2000) projects increases in the numbers of elders with dementia of the Alzheimer's type to as many as 14 million by the year 2040.

Estimates of the other prevalent mental health disorders among persons over age 65 are few and variable. Historically, epidemiologic studies of mental health disorders in both general and clinical populations have used age 54 as a cut off point. Some of the earliest seminal studies about mental health needs of elders included Regier et al. (1988) and Cohen (1991). In the former, the Epidemiologic Catchment Area Program (ECA), which provided the largest population-based data on mental health disorders in the United States, mood and anxiety disorders in elders were estimated at 2.5% and 5.5%, respectively. But in 1991, Cohen suggested that 15% to 25% of elders demonstrated significant symptomatology. In 1992, the National Institute of Health (NIH) concluded that depressive disorders especially are (a) widespread among older adults, (b) frequently comorbid with medical illness, and (c) a serious public health concern. The National Center of Health Statistics (1993) echoed NIH's concern and reported that elderly white males have the highest suicide rates of all age groups. The American Psychiatric Association (1994) contended that, except for dementias, the frequency of most mental health disorders does not increase in the elderly population. However, Kessler, Berglund, and Zhao (1996) estimated that 25% of older people experience specific mental disorders such as depression, anxiety, and substance abuse that are not part of normal aging. Although more current and precise prevalence estimates about mood and anxiety disorders among elders are not available, partly because only 24 of the 50 states and the District of Columbia have operational mental health plans that address screening, crisis intervention, and treatment needs or services for their aging populations (U.S. Department of Health and Human Services, 2000), the Surgeon General (1998,1999) has emphasized the need for health professionals to become more engaged in meeting the mental health needs of elders.

In younger individuals, mental health disorders may occur singly. In elders, however, mental health disorders are frequently comorbid, occurring in conjunction with any one of a number of common chronic illnesses such as respiratory problems, arthritis, diabetes, cardiac disease, and the like. In combination, these disorders impact physical functioning, independence, perceived well-being, quality of life, and health outcomes in subtle and complex ways (Lichtenberg, 1998). The biological and psychological declines that typically accompany aging--stamina and endurance, memory, and alterations in metabolism, to name a few--can be compensated for in some individuals to the extent that their daily functioning is not compromised. But for elders with comorbid mental health and physical impairments, typical declines become more pronounced, threatening their abilities and capacities for self-care.

The relationships between mental health disorders and functional disability in elders may seem obvious; but as Williamson, Shaffer, and Parmelee (2000) note, empirical data suggest the links are complex. Fried and Guralnik (1997) and Fried, Ettinger, Lindh, Newman, and Gardin (1994) posit a spiral over time. A mental health disorder, such as depression or anxiety, increases the risk of both self-perceived and behavioral disability which, in turn, increase the risk of more depression or anxiety. A process of reciprocal reinforcement continues, resulting in greater vulnerability of the individual to further disease and decline in overall health and quality of life. This is a particularly salient issue among persons with disabilities because depression and anxiety are seen in them more frequently than those without disabilities (Centers for Disease Control, 1998). This spiral relationship evolves over time and is exemplified by the following: A co-existing cognitive disorder such as vascular or Alzheimer's dementia attendant to diabetes may erode a person's ability to understand how to take blood glucose measurements and what to do about resultant readings, eroding self-management of the diabetes.

Investigations of comorbidities for factors such as physical functioning, psychological functioning, and psychosocial variables, are relatively recent and few. But, as noted earlier, developing greater understanding of these associations and relationships is of critical concern to better understanding and treatment of a growing aging population in the United States. At the present time, the disciplines concerned with comorbid disorders and the subtle and complex relationships between comorbid mental health disorders, chronic illnesses and disabilities, and functional health outcomes include geriatric neuropsychiatry, behavioral neurology, clinical geropsychology, neuropsychopharmacology, sociology, and related disciplines. Coffey and Cummings (1994), Anderson and Haley (1997), and Haley et al. (1998) note that there is a gross lack of availability of individuals with expertise in gerontologic patient care, education, and research.

General medical and primary care settings are the initial points of health care contact for many elders, including those with mental health disorders. In the past, health care professionals in these settings paid less attention to mental state than the physical. Today, however, nurse practitioners, family physicians, and social workers include assessment of patients' emotional health in service protocols.

Some rehabilitation professionals (e.g., physical, occupational, speech, and recreation therapists; orthotists and prosthetists; biomedical engineers and independent living specialists) are likely to encounter elders in secondary or tertiary care settings or community office-based practices. Rehabilitation counselors who have knowledge of both chronic physical illness and disabilities and mental health disorders may come to work with older clients in future care environments that integrate clinical and case management elements in programs designed to be more holistic.

The purpose of this article is to describe the most common mental health disorders in elders in order to help rehabilitation professionals prepare for elder care opportunities that will evolve in integrated systems. Symptoms of mental health disorders, possible associated medical problems, and relevant, scientifically based treatment approaches will also be discussed. Family concerns will be addressed briefly as well. It is hoped that readers will come away with a deeper understanding of prevalent psychopathologies among the aging population and the complexities of comorbidity.

Prevalent Psychopathologies

The most common mental health disorders prevalent among elders are depression and dysthymia; anxiety, especially phobias; and alcohol abuse and dependence. Also prevalent are the dementias,

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primarily cortical dementias such as Alzheimer's and vascular dementia, also known as multi-infarct dementia. All of these psychopathologies have neurobiological components; all cause functional limitations in activities of daily living; and all have spillover consequences for family members and other caregivers. All of these mental health disorders, although not curable, are treatable with appropriate medications, psychotherapies, and environmental psychosocial interventions.

Cognitive Disorders--Cortical and Subcortical Dementias

Dementia is a syndrome of acquired persistent decline in several realms of cognitive ability including memory, problems with language and math, difficulty problem solving, impaired recognition, and disturbances in planning a sequence of activities such as going to the grocery store or trying to do errands (American Psychiatric Association, 1994; Reichman, 1994). In addition to the intellectual declines that characterize dementia, there are often changes in the individual's behavior and mood or the individual's ability to manage his or her emotions. In terms of behavior, some individuals may become aggressive and anxious while others become disinhibited or passive. Many persons with dementia develop problems in the sleep/wake cycle. Activities of daily living such as grooming, dressing, eating, toileting and managing personal affairs are also impacted. Different forms and types of dementia are classified according to the regions of the brain impaired, i.e., cortical impairment with early cognitive symptoms and signs such as those seen in Alzheimer's disease, the predominant type, or rarer subcortical impairments with sudden focal neurologic deficits and emotional symptoms and signs, such as those seen in Parkinson's or Huntington's disease and progressive supra-nuclear palsy. The characteristic differences in major types of dementia manifest in verbal output, mental status, and movement (Gottlieb, 2000)

Cortical dementias, including frontal lobe dementias such as Pick's Disease, have a rather insidious onset and a slow but progressive decline. Memory and language and thinking abilities are usually effected first (Kaplan & Sadock, 1998). Alzheimer's patients experience problems in learning new information and retrieving older memories. Language declines follow a characteristic progression beginning with word finding trouble, progressing to aphasia, and finally to diminished comprehension and muteness. Visuospatial problems also appear early--examples include an individual's putting an iron in the freezer compartment of the refrigerator, not being able to find one's bed or favorite chair despite having lived in that environment for many years, and the inability to draw a clock face, correctly placing the hands of the clock at a specified time. In the middle stages of cortical dementias, individuals develop behavioral and motor problems (Kelley, 1998). In this phase, patients may wander, thereby requiring caregivers to monitor exits with alarms of some sort. Patients may become paranoid, have visual hallucinations, be agitated, and demonstrate marked personality changes, all of which tax the resilience of family caregivers (Gottlieb, 2000).

Treatment of the cortical dementias is symptom-focused and designed to slow progression of the disorder and improve functional capacities to the extent possible. Medications such as Cognex or Aricept can eliminate some of the memory deficits in early stages of the dementia, but physicians estimate that improvement lasts for about six months only (Fawver, 2000). Low dose psychotropics are prescribed for anxiety and sleep. For agitation and psychosis, novel antipsychotics such as risperidone, olanzapine, and quetiapine seem to help (Bartels, Haley, & Dumas, 2002). For depression, behavioral treatment is modestly effective (Teri et al., 2000, as cited in Bartels, Haley, & Dumas, 2002).

Lower incidence subcortical dementing disorders such as Parkinson's or Huntington's are characterized by early neuropsychiatric signs--confusion at night, depression, somatic complaints, and emotional lability

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(Kaplan & Sadock, 1998). Because early features of these diseases seem more emotional or psychiatric than intellectual, the subcortical dementias may be mis- or underdiagnosed. This was the case for folk singer Woodie Guthrie who had Huntington's disease and actor Dudley Moore who had progressive supranuclear palsy. A similar phenomenon occurs in AIDS patients who have dementia. They may demonstrate apathy, psychomotor retardation, or lack of motivation, all of which may be attributed to depression rather than dementia induced by the virus. According to Clark (1997), differential diagnosis of symptoms such as these is challenging for health professionals who treat such patients because metabolic disturbances associated with AIDS and medications used in treatment, particularly protease inhibitors, interact, producing problems that interfere with quality of life.

Families and caregivers need advice, help, and support regarding psychosocial issues that are part of dementing disorders. Some practical and very helpful information is available through the Alzheimer's Association, through support groups, and from Mace and Rabin's (2001) seminal book, *The Thirty-Six Hour Day*. Modifying certain features in the patient's home environment may help in dealing with behavioral and emotional changes. For example the rehabilitation professional who has an understanding of accommodation may be able to provide helpful advice such as affixing labels to kitchen cabinets ("the glasses are in here") and replacing buttons with velcro fasteners. Instituting some simple daytime exercise routines are also helpful. Referral to respite care and/or personal care attendant services may also be helpful for those families who strive to maintain their loved elders in a home environment. Most standard insurances do not pay for such services, but some newer long term care policies include provisions for nonskilled health care.

Depression and Related Mood Disorders

Major depression, whether deep, dark, and filled with black metaphors as in melancholia; or seasonal pattern; or dysthymia, a chronic milder form of depression, impairs social and occupational functioning (American Psychiatric Association, 1994). Contrary to a popularly held lay view, depression is not a defining characteristic or intractable problem imbedded in aging (Zarit & Zarit, 1998). Depression can, however, complicate medical illnesses and lower life expectancy in the elderly, especially in white males (Cremens, 2000).

The internal mood state that accompanies depression or dysthymia can range from suffering, to profound sadness, to apathy and a sense of numbness, to sharp irritability. Accompanying these feelings are vegetative symptoms (changes in weight or appetite or sleep), changes in psychomotor activity (restlessness and pacing versus the "couch potato"), and even cognitive signs such as difficulty thinking, concentrating, or making decisions (Kaplan & Sadock, 1998). In addition, recurrent thoughts of death or suicidal ideation, plans, or attempts, or even homicidal-suicidal ideation, may be part of the syndrome as well (American Psychiatric Association, 1994; Jamison, 1999). The extent to which the signs and symptoms of depression overlap with medical problems is a major diagnostic conundrum (Zarit & Zarit, 1998). Somatic complaints such as fatigue, pain, or sleeping problems, which are frequently features of chronic illnesses, are also features of depression and it is difficult to discriminate between the two. Additionally, elders, many of whom do not have the vocabulary to describe inner feeling states, somaticize depressive symptoms. It is therefore important to have well trained and highly skilled mental health professionals providing individualized assessment for persons who are elderly and are suspected of having either depression or somaticized medical problems.

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Possible etiologic factors for depression and dysthymia in later life include the following: (a) existence of major depressive disorder earlier in life; (b) stressful events such as loss and bereavement; (c) cognitive style; (d) biologic influences such as the co-occurrence of medical problems ranging from cancer to endocrine disorders to nutritional deficits and cardiac illness; (e) social isolation; (f) decrease or altogether loss of stimulating and pleasurable activities of life; and (g) normal neurobiological processes associated with aging, specifically the diminution of neurotransmitters such as serotonin, norepinephrine, and dopamine (Stahl, 2000). Empirical evidence to date suggests that simplistic explanations are deficient and "truth" most likely resides in combinations of complex and interacting factors. Practice standards for the treatment of depression and dysthymia in elders include psychopharmacology, interpersonal and/or cognitive psychotherapies, and psychosocial interventions such as support, and long-term case management (American Psychiatric Association, 1996; Barrels, Haley, & Dumas, 2002; Kaplan & Sadock, 1998).

When comorbid with physical illness, injury, or long-standing disabilities, depression impacts long-term recovery and resumption of independent activities of daily living. This finding has been demonstrated in studies related to geriatric stroke (Parikh, Robinson, & Lipsey, 1990), hip fracture (Cummings et al., 1988; Diamond, Holroyd, Macciocchi & Felsinthal 1995; Lichtenberg, 1998); in wound repair or healing secondary to problems such as diabetes (Kiecolt-Glaser, Maruch, Malarkey, Mercado, & Glaser, 1995) and in immune functioning (Applegate, Kiecolt-Glaser, & Glaser, 2000). This finding may be attributable in part to the fact that elders with chronic depression perceive their physical maladies as much more serious and incapacitating than do objective observers (Schrader, 1997). When depression co-occurs with neuropsychiatric illnesses such as Parkinson's disease, stroke, vascular dementia, or epilepsy, symptoms manifest as mood lability, anxiety, irritability, and a pessimistic sense of foreboding (Kaplan & Sadock, 1998).

Recommended treatment approaches for comorbid depression in elders include (a) the use of medications, (b) electroconvulsive therapy, (c) psychotherapy and (d) treatment of family members or caregivers with whom the elder has close contact (Kelley, 1998; Zarit & Zarit, 1998). With regard to psychopharmacologic treatment, there are more than 35 antidepressants available; however, some have cardiotoxic, sedative, or pyramidal side effects which are adverse in the elderly. Selective serotonin reuptake inhibitors (e.g., Paxil, Zoloft), other antidepressants (e.g., Effexor, Welbutrin, Remeron) and novel antipsychotics (e.g., Risperidone, Olanzapine) are among preferred medications prescribed today, but care and diligence must be exercised in dosages prescribed because of the altered pharmacokinetics and pharmacodynamics in elders' physiology, as well as potential interactions of psychotropic medications with other medications an elderly individual may be taking (Cremens, 2000). For elders whose depression may be intractable, electroconvulsive therapy (ECT) may have some efficacy; however, no treatments come without risk and the medical risks involved with ECT include falls, cardiovascular symptoms, confusion, and short term memory loss (Kaplan & Sadock, 1998). Efficacious psychotherapies with elders, as noted previously, include behavioral, cognitive behavioral, and interpersonal techniques. Similarities shared by these three counseling approaches include an emphasis on adaptive behavior and adaptation to the present environment, as well as encouraging control of that which is controllable, and increased physical activity of any sort. Whatever psychotherapeutic approach is used, the American Psychiatric Association (1996) recommends that it be present-focused and consider key areas such as grief or bereavement, interpersonal disputes, and role transitions. The therapist's role is that of a collaborator and supporter. Sessions are typically shorter in length to accommodate the elder's endurance and stamina. In some situations, group psychotherapy and/or support groups for elders may be helpful. This can be determined on an individualized basis. With regard to family members and caregivers, several studies have

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demonstrated that depressed elders are less likely to have successful responses to treatment when their family member or caregiver is also struggling with psychiatric symptoms (Han & Haley, 1999; Hinrichsen & Zweig, 1994; Kelley & Lambert, 1992; Weitzner, Haley, & Chen, 2000). Therefore, treatment including supportive counseling and medication may be indicated for the family or caregiver as well.

Anxiety and Phobias

Anxiety is both a symptom and syndrome. What differentiates normal anxiety from psychopathological anxiety is the duration and intensity of the symptoms. Empirical studies concerning anxiety disorders in elders are few and far between; however, the ECA data (Regier et al., 1988; Sheikh, 1994) indicated a prevalence rate of 19.7% in the 65 or older age group. Gurian and Miner (1991) state that anxiety symptoms in older people generally occur in conjunction with other medical disorders. These can include hearing and vision loss, iatrogenic reactions to illness and hospitalization, somatic symptoms, cardiovascular and chronic obstructive pulmonary diseases, Alzheimer's and Parkinson's diseases, and various endocrine conditions including hyper- or hypothyroidism, hypoglycemia, and the like. There is lack of consensus whether anxiety disorders are primary or secondary in elders, that is, whether anxiety symptoms have been present much earlier in life, persist, and/or recur as more stressful situations present themselves, or whether anxiety symptoms arise as chronic illnesses develop (Small, 1997; Smith, Sherrill, & Colenda, 1995; Zarit & Zarit, 1998). In addition, elders may react to various medications or combinations of medications and the side effects from these drug reactions may manifest as anxiety.

Medications that can induce such symptoms include steroids, thyroid preparations, stimulants including caffeine, and even excessive doses of over-the-counter sleep aids (Frey, 2001). As is the case with depression, when anxiety is comorbid with a broad range of physical illnesses (cancer, cardiovascular disease, gastrointestinal impairments, respiratory disorders), alcohol abuse, or chronic insomnia, assessment and treatment are more challenging and successful health outcomes are more difficult to realize.

Assessing whether anxiety symptoms are preexisting, part of a medical problem, or a psychosocial response to the medical problem and its treatment, are a challenge to the health professional. Carmin, Pollard, and Gillock (1999) present a comprehensive review of tools and resources which may be used in assessing anxiety disorders in the elderly. They note that some preliminary investigations provide useful and helpful information about primary fears and phobias among the elderly; yet, these authors point out that more information is needed to bring adequate clinical attention to elders.

Treatment and management of geriatric anxiety include the use of both psychopharmacologic agents and cognitive behavioral psychotherapy techniques. With regard to the former, anti-depressants, specifically selective serotonin reuptake inhibitor medications such as Prozac and Zoloft, and beta blockers such as Inderal, are used. Benzodiazepines, which are addictive, have several adverse side effects including sedation, depression, cognitive impairment, and even intoxication, and are used sparingly in elders. With regard to psychotherapy, cognitive behavioral treatment, which has been shown to be successful in younger populations, is less well studied with elders. A few case studies such as those of Woods and Britton (1985) describe successful behavioral treatment of elders with agoraphobia. More case studies of this type would be instructive as models for contemporary clinicians.

Alcohol Abuse and Dependence

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Alcohol use disorders among elders range from problem drinking to abuse to dependence. Onset may be early or late in life. In the latter circumstance, factors such as loneliness, loss, decline in physical capacities, and a host of other psychosocial factors can contribute to the initiation and maintenance of alcohol use disorders. Atkinson and Ganzini (1994) point out that while denial of substance abuse is common in affected persons of all ages, it may be exaggerated in elderly patients because of problems such as memory, shame, pessimism about recovery, or the desire not to discontinue use of alcohol. The National Institute of Alcoholism and Alcohol Abuse (1995) cautions that even light to moderate drinking may have multiple negative health effects in elders, more so than in younger individuals. These facts are substantiated by a number of experts in the field including Barry and Blow (1999), Benschhoff and Janikowski (2000), and Lichtenberg (1999). Case finding and treatment of alcohol use disorders in elders is complicated to some extent by the fact that they present largely with somatic complaints in primary care settings and many primary care physicians have not been well trained to recognize alcohol use disorders in this population (US Department of Health & Human Services, 1997). Nevertheless, the Healthy People 2000 guidelines indicate that primary care systems are in an excellent position to intervene on these types of problems. While third party reimbursers such as Medicare will reimburse acute care for alcoholism in the elderly, private insurance reimbursement for longer term treatment, especially residential treatment in a structured environment, is problematic (Moyers, 2000).

In elders, chronic alcohol use can have more potent neurotoxic effects on the central nervous system, resulting in cognitive deficits including Korsakoff's Syndrome, insomnia, mood, and movement disorders (American Psychiatric Association, 1994; Regier et al, 1990). Although the prognosis for alcohol dementia is different from that in Alzheimer's dementia, in that specific neuropsychological functions may be preserved in alcohol dementia, there is frontal lobe atrophy resulting in impairment of executive function and cerebellar atrophy resulting in impairment in movement. Both have long-term care implications. Also, sleep architecture is impaired in chronic alcohol consumption and empirical evidence suggests that, even after several years of abstinence, slow wave or REM sleep is not restored.

Families can be impacted too. Hargrave (2002) describes a poignant case study in which family members are deeply concerned about an elderly relative who has chronic alcoholism with a comorbid mental health disorder. Recovery was not realized in that case study; but it should be emphasized that Alcoholics Anonymous, Al-Anon, and residential-treatment programs such as Hazelden, are all making a concerted effort to reach out to elders and their families to intervene in alcohol use disorders and facilitate recovery. For those who cannot stop drinking, guardianship issues may arise.

Implications for Rehabilitation Professionals

During the past decade some professional programs in rehabilitation and related disciplines (e.g., physical therapy, occupational therapy, therapeutic recreation, and orthotics and prosthetics) have integrated information about serving the aging population into their respective curricula. Rehabilitation counseling programs, however, typically have not addressed aging issues in the traditional curriculum. Most rehabilitation counseling students have not received exposure to aging concerns in either academic course work or in supervised practica and internships. And few rehabilitation graduates have pursued careers in gerontology. But several current social and health care practice trends underscore the emerging importance to do so. Issues facing rehabilitation today include elders returning to the workplace, integrated health care delivery systems, modern day health care practices which move elders from acute care hospitals to intermediate extended care facilities followed by longer term outpatient physical

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restoration in rehabilitation clinics, and increasing reliance on community supports and resources for psychosocial interventions (Haley et al., 1998).

In the future, the aging population will be treated more in integrated health care settings that focus on a specific chronic illness such as cardiovascular disease, diabetes, or respiratory disease. It is in these integrated health care settings that rehabilitation professionals will find opportunities and challenges to serve the aging population. It is likely that collaborative care will include not only cooperation of medical personnel, but also consulting, case management, and life care planning functions in which rehabilitation professionals are well versed. To better serve the aging population, rehabilitation education will be challenged to provide opportunities for rehabilitation graduate students to participate in field experiences in settings where these individuals are likely to be, especially in the community. Rehabilitation education and research will then be challenged to demonstrate empirically that their professional expertise and sensitivities are conducive to effective care for the growing numbers and growing needs of the elderly population.

This overview has described the prevalent mental health disorders, among elders. Rehabilitation professionals who master this knowledge and pair it with their understanding and skills concerning physical illness and disability will be prepared to respond to the growing need for professionals who are cross trained and multi skilled in gerontologic consumer care, family education and support, and protection of elders' quality of life in the community.

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