OLDER AMERICANS
Substance Abuse & Mental Health
Technical Assistance Center

Evidence-Based Practices for Preventing Substance Abuse and Mental Health Problems in Older Adults

Excerpt: Prevention of Co-Occurring Substance Abuse and Mental Health Problems

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EXECUTIVE SUMMARY

The prevention of substance abuse and mental health problems within the aging population has been recognized as a national priority. The Substance Abuse and Mental Health Services Administration's *Older Americans Substance Abuse and Mental Health Technical Assistance Center* (TAC) is committed to serving as a leading resource for the prevention and early intervention of late-life substance use and mental health problems. Despite the substantial prevalence and adverse consequences of substance use and mental health problems in older persons and the considerable knowledge related to preventing these problems, evidence-based prevention and early intervention services are not widely available nor promoted for this at-risk population. Given financial restrictions facing many health care systems, guidance is needed to direct limited available resources toward the provision of programs that have proven effectiveness. To support this effort, the TAC has reviewed the best available evidence supporting programs that target the prevention and early intervention of substance abuse and mental health problems in older adults.

The purpose of this review is to highlight prevention and early intervention programs that have proven effectiveness. This report identifies the demographic imperative for addressing late-life substance use and mental health problems, describes the current terminology of prevention programs and practices, provides a comprehensive review of the published evidence base for the prevention and early intervention of geriatric substance abuse and mental health problems based on the empirical evidence, and describes dissemination and implementation issues that align with state needs and priorities.

Five specific areas are addressed. These include the prevention and early intervention of alcohol misuse, medication misuse, depression and anxiety, suicide, and co-occurring substance abuse and mental health problems among older adults. This review provides a comprehensive examination of prevention programs in these areas that have been published through September 2005.

Alcohol Misuse

- Brief interventions can reduce alcohol misuse and hazardous drinking among older adults. Specifically, structured brief interventions and brief advice in health care settings have shown to be effective at reducing alcohol consumption in this population.

- Little evidence is available regarding universal prevention programs targeted at the prevention or reduction of alcohol misuse among older adults. Some health education programs have demonstrated increased knowledge among older adults about hazardous alcohol use.

- Recently developed screening and assessment instruments show promise as useful tools to improve identification of older at-risk drinkers and enhance clinician interactions to prevent or reduce alcohol misuse.

Medication Misuse

- Computer-based health education tools designed for older adults have shown gains in knowledge and self-efficacy regarding potential drug interactions, as well as improvements in self-medication behaviors.

- Clinical trials on early interventions with older adults who are at increased risk for medication misuse have had mixed results. Nonetheless, interventions with patients prior to hospital discharge, interventions targeted at changing provider prescription patterns, and home-based medication reviews show some promise to prevent medication misuse.

Depression and Anxiety

- A moderate amount of evidence supports the effectiveness of problem solving therapy (PST) and exercise in preventing the onset or worsening of depression. In addition, targeted outreach is effective in engaging isolated and vulnerable older adults in mental health care.

- More research is needed to determine whether other potentially effective strategies are effective in preventing depression, including: life review, reminiscence therapy, educational classes for older adults and providers, and mind-body wellness.

- Minimal evidence supports prevention programs focused on late-life anxiety.

Suicide

- Supportive interventions that include screening for depression, psychoeducation, and group-based activities have been associated with reduced rates of completed suicide among older adults.

- Telephone-based supportive interventions have also been associated with a reduction in the rate of completed suicide.

- Protocol-driven treatment of depression delivered by a care manager has been associated with reduced suicidal ideation.

Co-occurring Disorders

- Concurrent treatment of substance abuse and depression may be effective in reducing alcohol use and improving depressive symptoms.
- The evaluation and treatment of co-occurring substance use and mental health problems among older adults is an under-studied area.

This report highlights the evidence base for the prevention and early intervention of substance use disorders and mental illness in older adults. Of note, the field of prevention is far less developed than our understanding of the diagnosis and treatment of substance abuse and mental disorders in late-life. In particular, comparatively few scientific efforts have focused on preventive measures, the early identification of and intervention with high-risk individuals, and the promotion of optimal health regarding substance abuse and mental health concerns in late adulthood. However, this summary of the current evidence base provides direction for both providers and consumers regarding substance abuse and mental health prevention and early intervention services. This information can be useful in planning and implementing effective programs and practices, while also underscoring future directions for research and evaluation.

PREVENTION OF CO-OCCURRING SUBSTANCE ABUSE AND MENTAL HEALTH PROBLEMS

The prevalence of older adults with comorbid substance abuse and mental disorders varies by population, and ranges from 7 percent to 38 percent of those with psychiatric illness and from 21 percent to 66 percent of those with substance abuse.[1] Co-occurring mental health and substance use disorders are associated with an increased risk of poor health outcomes, greater inpatient and outpatient service utilization, and increased suicidal ideation and attempts, compared to either disorder alone.[2-4] Depression and alcohol use are the most commonly cited co-occurring disorders in older adults.

Several search strategies were used to identify programs that address the prevention and early intervention of co-occurring disorders in older adults. The PubMed, PsychInfo, CINAHL, Ageline, Social Services Abstracts, and ERIC databases were used to identify published literature using a combination of the search terms: co-occurring disorders, dual diagnoses, alcohol, substance abuse, depressive disorders, and mental illness. Other search strategies were also employed, including searches conducted through Google and federal and foundation grant databases.

The following section describes the evidence supporting approaches to the prevention and early intervention of co-occurring substance abuse and mental health problems. Data on the prevention and early intervention of co-occurring disorders in older adults are limited. We were unable to locate universal prevention programs for older adults. The absence of universal prevention programs for late-life dual diagnosis is expected, because pre-existing substance abuse or mental health problems places preventive efforts at a selective or indicated level. The research literature describing the early intervention of co-occurring disorders is small and is largely focused on the comorbidity of depression and alcohol abuse. Early intervention strategies include programs that combine medication with psychotherapy for depression and integrated service delivery approaches. Table 1 provides an overview of intervention programs for older adults with co-occurring substance abuse and mental health problems. A review of these programs is also provided within the text.

Indicated and Selective Prevention Strategies (Early Intervention)

Effect of Alcohol Use on Depression Treatment Outcomes

Oslin and colleagues found that concurrent treatment of depression and a reduction in alcohol use was effective in achieving positive treatment outcomes.[5] In this large study of older persons (age 60+) hospitalized for late-life depression, outcomes were evaluated 3 to 4 months following discharge. Treatment during hospitalization for the vast majority (88%) included concurrent treatment with antidepressants and abstinence from alcohol. Surprisingly, those with a history of moderate and high alcohol consumption (compared to light consumption) had significantly better social functioning and energy outcomes and a lower proportion used antidepressant medications. The authors found that the vast majority of those in the moderate and high alcohol consumption group significantly decreased their alcohol consumption at the same time as receiving treatment for depression, with approximately 80 percent of patients reducing their drinking by more than 90 percent.[5] Of note, reducing alcohol use was associated with a modest benefit on depression outcomes, compared to older adults who continued to drink. The results of this study suggest that older adults with co-occurring depression and substance abuse benefit from treatment of depression, especially when consumption of alcohol is decreased.

Effectiveness of Naltrexone Combined With Treatment for Depression

Oslin and colleagues recently conducted a randomized clinical trial among alcohol dependent older adults with co-occurring depression.[6] In this study, older adults (age 55+) were randomized to either sertraline (an antidepressant medication) combined with psychosocial support or sertraline combined with psychosocial support plus adjunctive naltrexone (an opioid antagonist). This study failed to find any additional benefit of naltrexone as an adjunctive agent in the treatment of alcohol dependence. However, the investigators found a strong association between reduced depression and lower rates of drinking and relapse during treatment. The authors concluded that appropriate and optimal treatment of co-occurring depression and alcohol dependence should consist of concurrent treatment of both the alcohol dependence and depressive symptoms.

Effect of Integrated Care Compared to Enhanced Referral Care

The Primary Care Research in Substance Abuse and Mental Health for Elderly (PRISM-E) study compared treatment engagement of older primary care patients (age 65+) receiving care through two distinct services models, including integrated substance abuse and mental health treatment and

enhanced referral to a specialty mental health clinic.[7] A subgroup of participants in this study had co-occurring at-risk alcohol use and depression or anxiety (n=148). Of note, older adults with co-occurring disorders were significantly more likely to engage in the integrated model of treatment (4.0 mean treatment visits) compared to the enhanced model of referral to specialty mental health clinics (1.8 mean treatment visits).[7] Both the integrated and enhanced referral conditions were effective in decreasing alcohol use (as measured by number of drinks per week and the number of binges per month) and improving mental health status (as measured by the mental component score of the SF-36).[8] Unfortunately, it is not possible to determine (in the absence of a non-treatment control group) if the positive outcomes were due to the treatment, or a non-specific study effect. However, these results suggest that co-occurring at-risk alcohol use and depression or anxiety can significantly improve over 6 months among older adults receiving mental health and substance abuse services in primary care or specialty mental health settings.

Screening

A recent study by Philpot and colleagues[9] examined the effectiveness of three screening tests to identify problem drinking in older adults with mental illness. This examination evaluated the Alcohol Use Disorders Identification Test (AUDIT), the AUDIT-5, and the CAGE among 128 older adult patients with a mean age of 77 years. Mental health problems among this sample included dementia (54%), affective disorders (25%), schizophrenia/delusional disorders (11%), substance-related psychiatric disorders (3%), and other psychiatric disorders (7%). The sensitivity, specificity, and positive predictive value of the AUDIT (cut-point 7/8) and AUDIT-5 (cut-point 4/5) were similar and were superior to the CAGE (cut-point 1/2). In comparison with clinical case criteria, the AUDIT-5 performed better than either of the other scales and had a sensitivity of 75 percent, specificity of 97 percent, and positive predictive value of 83 percent using a 4/5 cut-point.[9] This study suggests that the AUDIT and AUDIT-5 are both appropriate screening instruments for detecting problem drinking in older adults with mental illness.

Ongoing Prevention Programs Undergoing Evaluation

A search of the NIH Clinical Trials database did not identify any studies that are currently evaluating the effectiveness of preventing or treating co-occurring substance abuse and mental illness in older adults. A broadened search using the terms “co-occurring disorders, dual diagnoses, alcohol and mental illness, and substance and mental illness” identified only six studies, all of which were focused on

younger persons. Entry criteria limited enrollment to individuals ages 18-65 in three studies, 18-70 in one study, 21-60 in one study, and 12-15 in one study. Three of the studies are evaluating the effectiveness of a pharmacological intervention, while three are evaluating the effectiveness of a psychosocial intervention. In addition, a review of current grants supported by the Robert Wood Johnson Foundation and the Hartford Foundation did not identify any projects focused on the prevention or early intervention of co-occurring disorders in older adults.

Conclusions

Dual diagnosis consisting of co-occurring substance abuse and mental illness among older adults is a growing public health problem. The empirical data on interventions for co-occurring depression or anxiety disorders and alcohol use disorders in older adults is limited. Well-designed prevention, early intervention, and treatment studies are needed that specifically address co-occurring disorders in older adult populations. Further research is needed that provides valid criteria for differentiating the diagnostic subtypes that comprise co-occurring disorders and the corresponding treatment interventions. Moreover, selective and indicated prevention efforts that focus on late-life mental illness alone and substance abuse alone should be applied to older adults with co-occurring disorders. Establishing an evidence base for the treatment of comorbid substance abuse and mental health problems represents a critical area of need for older persons with a mental illness or with a history of alcohol dependence, with current alcohol dependence, or with at-risk drinking.[10]

Table 1. Early intervention of co-occurring substance abuse and mental health problems

Reference	Study Design	Model/ Conditions	Age	Sample	Followup	Outcome measures and Results	Limitations/ Comments
Oslin, 2000[5]	Pre-post	Effect of concurrent alcohol use on treatment of depression	60+	Patients admitted to inpatient geriatric psychiatric treatment programs. 72% female. All patients had a DSM-IV diagnosis of a depressive disorder and a geriatric depression scale score > 10. 2,666 with admission data; 1,048 with followup data.	3-4 months following discharge. 39% with both admission and followup data.	Patients with moderate/high alcohol consumption (vs light consumption) had better energy and social functioning outcomes and fewer used antidepressants at followup. 80% of patients in the moderate/ high consumption group significantly decreased alcohol consumption (by 90% or more) while receiving treatment for depression.	Intervention not clearly defined. Low completion of followup data.
Bartels, 2004[7]	RCT. PRISM-e Study.	Integrated substance abuse and mental health treatment. Enhanced referral to a specialty mental health clinic.	65+ 73.5±6.2	Primary care patients. 74% male. Subgroup with co-occurring at-risk alcohol use and depression or anxiety (n=148) Integrated: n=73 Referral: n=75	6 months.	Greater engagement and more treatment visits in the integrated condition than in the referral condition. (79.5% vs. 51.4% engaged) (4.0 vs. 1.8 mean treatment visits)	Unpublished data showed that both groups reduced number of drinks/week and binges/month and had improved overall mental health status[8]. Not possible to determine if outcomes from the integrated or enhanced referral conditions were different than usual care.

Table 1. Early intervention of co-occurring substance abuse and mental health problems (continued)

Reference	Study Design	Model/ Conditions	Age	Sample	Followup	Outcome measures and Results	Limitations/ Comments
Oslin, 2005[6]	RCT	Sertraline + psychosocial support in addition to: placebo (PBO) or naltrexone	55+ Placebo: 62.5±5.6 Naltrexone: 64.2±6.9	Outpatients meeting DSM-IV criteria for alcohol dependence and a depressive disorder who had successfully completed alcohol detoxification (3 consecutive days of abstinence). 80% male. PBO: n=37 Naltrexone: n=37	12 weeks. 83.8% completed 3 months of psychosocial treatment. Drop-out rate did not differ between PBO and naltrexone.	No evidence for efficacy of naltrexone when added to sertraline and psychosocial support for relapse, abstinence, depression remission, or overall improvement.	Strong association between reduced depression and lower rates of drinking and relapse during treatment. Small sample size. Outcomes evaluated for remission and not for a continuous outcome measure.

RESEARCH NEEDS AND FUTURE DIRECTIONS

Attention to the prevention and appropriate treatment of substance abuse and mental health problems was identified as a major priority for older adults by the President's New Freedom Commission on Mental Health.[11] As identified in this review, there is a need for organizing, disseminating, and understanding evidence-based prevention and early intervention programs for late-life substance abuse and mental illness. While progress has been made in understanding the effectiveness of these programs and practices for older adults, there are challenges to matching these models to different service settings and different subgroups of older adults.

The growth in the aging population will have a significant impact on the substance abuse and mental health service delivery systems.[12-14] In anticipation of this growing problem, it is essential that substance abuse and mental health services meet the specific needs of older adults. For instance, cohorts of the young-old (e.g., baby boomers) and the old-old have different patterns of service utilization and different perceptions of stigma associated with receiving care for substance use or mental health disorders. Moreover, the prevalence of substance abuse, mental health disorders, and suicidal ideation vary across ethnic groups.[2,15-20] Mental health services are infrequently utilized by older minority populations[21] and lower utilization rates may be associated with limited access, stigma, distrust of mental health providers, and limited availability of culturally-competent services.[22,23] The lack of information on specific ethnic differences and culturally-appropriate service provision represents a limitation of the current evidence base. A greater understanding of cultural and ethnic differences is needed to enhance the ability to provide appropriate prevention and early intervention to older minorities with substance use and mental health disorders. For instance, social marketing associated with universal prevention interventions should be specifically tailored to cultural and language differences of ethnic groups. In addition, cultural competence should be enhanced across the full spectrum of prevention interventions.

This report provides a comprehensive review of the evidence for prevention and early intervention of alcohol abuse, medication misuse, depression and anxiety, suicide, and co-occurring disorders in older adults. As indicated by our findings, the development of preventive interventions associated with substance abuse surpasses that associated with mental health problems. However, the development and rigorous evaluation of programs that target both of these areas are sorely needed. In addition, there is a need to identify methods to appropriately translate information from clinical trials and research settings into the health care arenas where older adults most frequently receive care, and into social services settings where they receive other needed services. Likewise, population-based programs that target broad audiences of older adults may also offer hope for the universal prevention of substance use and mental health problems. In summary, substance use and mental health problems pose significant

risks for the functioning and well-being of older adults. Although several prevention and early intervention programs have been developed, there is a considerable need for dissemination and implementation of effective programs, as well as for further research aimed at the development and testing of novel programs.

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