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 Mental Health Problems: Suicide Prevention

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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 MENTAL HEALTH PROBLEMS

One in five older adults has a significant mental disorder, including more than 16 percent with a primary psychiatric illness and 3 percent with dementia complicated by psychiatric symptoms.[1] Depression and anxiety disorders are among the most common mental health problems in older persons and affect approximately 3-7 percent and 11 percent of the general older adult population, respectively.[2] The prevalence of other mental health disorders such as schizophrenia and bipolar disorder is much lower (less than 1%), although these disorders impart significant functional impairments in older persons. As with substance abuse, the prevalence of these disorders is heightened among persons receiving health care in the primary care system, in outpatient mental health settings, and in nursing homes.[3,4]

This review focuses on the universal, selective, and indicated prevention of the most common mental health problems in older adults. We specifically address the most prevalent conditions (mood and anxiety disorders) and suicide. Similar to the mental health *treatment* literature, most *prevention* programs target depressive symptoms and do not address late-life anxiety or other mental health conditions. Programs that target the reduction of depressive symptoms also heavily inform our reviews of suicide prevention. We specifically excluded the prevention of cognitive disorders, such as dementia, as this area includes a relatively large, rapidly growing, and complex research literature that is outside the scope of this review. The exclusion of dementia is based on the premise that the prevention and treatment of cognitive impairment disorders are most commonly addressed outside of the mental health care system and are, thus, less pertinent to state and local substance abuse and mental health care service providers and administrators.

Suicide Prevention

Suicide is the ninth leading cause of death among all persons in the United States [5] and is disproportionately common among older adults. Older adults (age 65+) represent 13 percent of the U.S. population,[6] yet account for nearly one fifth of U.S. suicides.[5] Men account for 82 percent of suicides among older adults and have a higher suicide rate than women (38 vs. 5.7 per 100,000 persons).[5] Lethal means are often used in late-life suicide. The most frequent methods of suicide among older adults include the use of firearms (men: 77%; women: 34%) and poisoning (men: 12%; women: 29%).[5,7]

Despite the disproportionate rate of suicide among older adults, most suicide prevention programs have focused on younger persons.[8] However, prevention of suicide in older adults is of special importance for several reasons. Older adults are less likely to report suicidal ideation compared to younger adults, and suicide attempts are more likely to be deliberate and lethal.[9] Compared to younger adults, older adults make fewer attempts per completed suicide.[5] In addition, more than half (58%) of older adults (age 55+) contact their primary care provider within 1 month of completing suicide. This rate is more than twice as high as that for younger persons (23%; age < 35). In contrast, only 11 percent of older persons contact a mental health provider in the month prior to suicide, a rate that is three times less frequent than that of younger persons.[10] It is noteworthy that older adults with active suicidal ideation are more likely to engage in integrated mental health and substance abuse services provided in a primary care setting, as opposed to services provided through specialty mental health clinics (83% vs. 54%).[11]

Early research has identified several risk factors for suicide. Non-modifiable risk factors include older age, male sex, race, and ethnicity.[9] However, several risk factors are modifiable, including the presence of suicidal thoughts and behavior, the presence of a physical or mental illness, alcohol consumption, difficulty adjusting to transitional life events, social support problems, personality vulnerability factors, hopelessness, bereavement, and access to lethal means.[9,12] Significant risk factors for suicide also include depression [13-15] and substance abuse.[16,17] Of note, co-occurring substance abuse and mental disorders are associated with an increased risk for suicide among older adults.[15,18] Moreover, benzodiazepines have been linked with suicide among older adults who have poisoned themselves.[19]

Several search strategies were used to identify programs addressing the prevention of suicide among older adults. The PubMed, PsychInfo, CINAHL, Ageline, Social Services Abstracts, and ERIC databases were used to identify published literature using a combination of search terms: suicide, suicidal ideation, prevention, and older adults. Bibliographic searching helped identify additional references. Other search strategies were also employed, including searches through Google, federal and foundation grant databases, the Center for the Study of the Prevention of Suicide (CSPS), the American Foundation for Suicide Prevention (AFSP), and the online registry of the Evidence-based Practices in Suicide Prevention Program.[8] *(Of note, the online registry reviewed 14 suicide prevention programs through January 2005. Future reviews of suicide prevention programs will be conducted through the SAMHSA NREPP process. Among the 14 prevention programs, only one focused on older persons (age 60+) and nine focused on school-aged children. Four programs were identified as effective, eight were identified as promising, and two did not receive a rating.)*

The following section describes the evidence supporting approaches to the prevention of suicide among older adults. Although national strategies have been developed to address suicide [20-22] and many sources have discussed the prevention of suicide among older adults,[9,12,23-32] only a handful of studies have evaluated the effectiveness of interventions on reducing completed suicide or suicidal ideation among older adults. The literature describing universal prevention of suicide among older adults is largely based on Japanese studies, with results from indicated and selective interventions derived from American and Italian studies. Universal prevention programs are described in Table 1 and consist of screening for depression, psychoeducation, and group activities. Indicated and selected prevention strategies are described in Table 2 and include treatment of depression and the provision of telephone-based support. A review of these programs is also provided within the text.

Universal Prevention Strategies

The evidence base supporting the universal prevention of geriatric suicide is minimal. Very few programs have attempted to reduce the rate of suicide among older adults using a community-wide approach. However, studies by Oyama and colleagues describe universal prevention programs that provide screening for depression, psychoeducation, and group activities. Please see Table 1 for further details regarding each study.

Oyama and colleagues[33] evaluated the effectiveness of a universal depression screening program, followed by mental health or psychiatric care, and depression education in a rural, agricultural community in Japan. Older residents (age 65+) completed the Japanese version of the Zung Self-Rated Depression Scale. Those individuals who screened positive were evaluated or provided treatment by a public health nurse or a psychiatrist (if warranted). Educational health workshops were offered to residents, including information regarding the signs, symptoms, and potential treatments for depression, along with information on using the mental health system, and developing relationships with other community members and neighbors. The intervention was associated with a reduction in suicide rates of 73 percent among older men and 76 percent among older women, compared to no risk reduction in older men or women in the comparison regions. Suicide completion in the pre-implementation to post-implementation phase decreased from 11 to 4 for men and from 16 to 6 for older women. In contrast to other suicide prevention programs, this program showed effectiveness for both genders.[33]

Oyama and colleagues[34] also evaluated the effectiveness of a three-component universal prevention program targeting older members of a rural agricultural community in Japan (age 65+). The first component included local and regional mental health workshops at which a public health nurse or psychiatrist provided group psychoeducation on depression and risk for suicide. The second component included a group activity program that provided opportunities for older adults to participate in social, volunteer, recreational, and exercise activities and was designed to promote and enhance the development of social relationships. Finally, a self-report depression questionnaire was distributed to older adults. Older adults were provided a description of how to evaluate their responses and a referral to a psychiatrist or public health nurse was provided to those who required a consultation. Evaluation of this program showed that the incidence of suicide decreased in older women during the 8-year period following program implementation, as compared to the 8-year period prior to program implementation. No reduction in suicide was seen among the control group, nor was it seen among older men in the intervention region.[34]

Assessment

Few scales have been developed specifically for the assessment of suicide risk or suicidal ideation among older adults. The Harmful Behaviors Scale (HBS) is a 20-item scale that is scored based upon observations of direct and indirect self-destructive behavior among nursing home residents. While this instrument has internal consistency and interrater reliability, it is limited in its reliance on observer ratings.[35,36] Two other instruments have been developed that have potential merit in detecting and measuring suicidal ideation among older adults; however, these instruments are longer and have yet to be fully evaluated. They include the Reasons for Living Scale – Older Adults version (RLS-OA) and the Geriatric Suicide Ideation Scale (GSIS).[9] The development and testing of additional tools for evaluating suicide and its prevention may be a useful addition to this field.[29]

Selective and Indicated Prevention Strategies

The evidence base for indicated and selective prevention of suicide among older adults is also small. Programs that target the reduction of modifiable risk factors include depression treatment and telephone-based social support. Please see Table 2 for further details.

Szanto and colleagues[37] recently examined the course of suicidal ideation among older adults (ages 59 – 95) receiving short-term treatment for depression. This secondary analysis evaluated 395 persons with major depression receiving inpatient or outpatient treatment with antidepressant medication alone or in combination with interpersonal psychotherapy. Suicidal ideation rapidly decreased during the initial stages of treatment and then declined more gradually. After 12 weeks of treatment, only 18.4 percent of participants reported suicidal ideation, thoughts of death, or feelings that life is empty, compared to 77.5 percent at the beginning of treatment. Moreover, after 12 weeks of treatment, only 4.6 percent continued to report thoughts of death, compared to 36.2 percent at the beginning of treatment. The decrease in suicidal ideation was more gradual for those with a recent suicide attempt or current suicidal ideation (median response time: 6 weeks) or with recurrent thoughts of death (median response time: 5 weeks), compared to those with no suicide attempt, suicidal ideation, or thoughts of death (median response time: 3 weeks). This study suggests that suicidal ideation can resolve among older adults receiving active treatment for depression. However, it is noteworthy that individuals with the most severe risk for suicide require treatment for an average of 1½ months to see significant reductions in suicidal ideation.

Bruce and colleagues[38] evaluated the effect of the Prevention of Suicide in Primary Care Elderly: Collaborative Trial (PROSPECT) on reducing suicidal ideation among older adults (age 60+) with depression. PROSPECT combines depression treatment guidelines with depression care management. Guidelines consist of a clinical algorithm for treating geriatric depression in a primary care setting and are modified to address the special circumstances associated with the treatment of depression in older adults, including adverse events, medical comorbidity, functional disability, cognitive functioning, and social stigma. A "depression care manager" who works with the primary care physician and a supervising psychiatrist conducts care management. Data suggest that suicidal ideation resolves more quickly in patients receiving care through a depression care management model employing geriatric specific guidelines, compared to those receiving usual care. PROSPECT participants had significant reductions in suicidal ideation by 4 and 8 months, compared to usual care. Of note, reductions were greater among those diagnosed with major depression, compared to those with minor depression. The intervention was also associated with reductions in depression at 4, 8, and 12 months, compared to usual care. Specific protective factors increased through the PROSPECT intervention included the effective clinical care for mental, physical, and substance use disorders as well as easy access to a variety of clinical interventions and support for help-seeking. The intervention sought to decrease risk factors, including barriers to accessing health care and the presence of untreated mental illness. PROSPECT has

been identified as an "effective" selective and indicated prevention program by the registry of evidence-based suicide prevention programs.[39]

DeLeo and colleagues[40] evaluated the effectiveness of the TeleHelp-TeleCheck service for suicide prevention among older persons in Italy (age 65+). The program targeted older persons with a variety of risk factors, including disability, social isolation, psychiatric problems, poor compliance with hospital outpatient care instructions, or individuals waiting for institutional admission. At-risk older persons were referred by their health care physician or social worker to the TeleHelp-TeleCheck service. Participants were provided with a remote alarm device used to trigger a response network (TeleHelp). In addition, TeleCheck included short, informal, twice-weekly telephone interviews by trained staff. These checks were used to evaluate participant welfare and to provide emotional support. Participants were also able to call the TeleCheck line on a 24-hour basis. This service was evaluated over an 11-year period among more than 18,000 older Italians. The intervention was successful in reducing the number of observed suicides among older women, though it did not significantly lower the rate of completed suicides among older men. In addition, the TeleCheck component of the intervention has been associated with fewer requests for physician home visits, hospital admissions, and depression severity.[40]

In addition to the few studies that have specifically addressed the reduction of suicide or suicidal ideation among older adults, several other programs have concurrently targeted both younger and older adults (not shown in tables). For example, a program in Gotland, Sweden provided education to primary care physicians to improve treatment of depression and lower rates of suicide. The rate of suicide decreased following physician training; however, the rate of suicide increased 2 years after the completion of training. The small number of completed suicides and the lack of focus on older adults makes it difficult to draw conclusions from this study.[41,42] In contrast, placing limits on analgesic packaging has been defined as an "effective" universal prevention program within the registry of evidence-based suicide prevention programs.[43] Due to high numbers of self-poisoning associated with analgesics, the United Kingdom passed legislation in 1998 to limit pack sizes of analgesics to 32 tablets per sale at a pharmacy and 16 tablets per sale at non-pharmacy locations. Printed warnings regarding dangers of overdose were also provided. Rates of self-poisoning in the United Kingdom among persons aged 12 and above were evaluated over a 6-year period through a naturalistic design. Packaging limitations, which restricted access to a lethal means of suicide, were associated with a significant decrease (22%) in self-poisoning with analgesics.[44,45] The effectiveness of this approach has not been evaluated in the United States, nor has it been evaluated specifically among older adults.

Conclusions

A review of the current evidence supporting the universal, selective, and indicated prevention among older adults suggests that current prevention programs can reduce the rate of suicide among older women, but have shown more limited effectiveness among older men. Supportive interventions appear to be effective for older women. There is a need, however, for alternative interventions targeting suicide prevention among older men. Of note, several of the prevention strategies have been developed and evaluated in other countries (including Japan and Italy). While these programs have shown effectiveness in their original setting, it is possible that differences in health care systems and characteristics of the older adult populations may limit their generalizability to samples and settings in the United States.

Although there is little data to support the prevention of older adult suicide, national strategies endorse science-based suicide prevention initiatives. The following goals and objectives have been specifically adapted from the National Suicide Prevention Strategy to meet the needs of older adults:[22,29]

- Promote awareness that suicide in older adults is a public health problem that is preventable;
- Develop broad-based support for elder suicide prevention;
- Develop and implement strategies to reduce the stigma associated with aging and with being a senior consumer of mental health, substance abuse, and suicide prevention services;
- Develop and implement community-based suicide prevention programs for older adults;
- Promote efforts to reduce access to lethal means and methods of self harm by older adults;
- Implement training for recognition and assessment of at-risk behavior and delivery of effective treatment to older adults;
- Develop and promote effective clinical and professional practices;
- Improve access to and community linkages with mental health, substance abuse, and social services designed for the evaluation and treatment of older adults in primary and long-term care settings;

- Improve reporting and portrayals of suicidal behavior, mental illness, and substance abuse among older adults in the entertainment and news media;
- Promote and support research on late-life suicide and suicide prevention;
- Improve and expand surveillance systems;
- Implement interventions that improve social relations and decrease isolation in older adults; and
- Increase access to geriatric specialty health care.

Future directions for the prevention of suicide among older adults may include community-based educational initiatives that attempt to de-stigmatize help-seeking, greater use of mental health screening and treatment among older adults, education of stakeholders (including gatekeepers who could serve an important role in identifying at-risk older adults), and training of health care providers in suicide risk and protective factors.[9] Prevention of suicide should focus on age-specific risk and protective factors that address differences associated with race, ethnicity, and gender.[5] While emphasis should be placed on universal prevention strategies that stress educational interventions, their combination with selective and indicated strategies offers the most hope for effecting significant reductions in late-life suicide rates.[29] For instance, preventing or reducing problem drinking and depressive symptoms, particularly in combination, is likely to reduce risk for suicidal ideation and suicide. Finally, special attention should be placed on the identification and treatment of older adults with suicidal ideation in primary care.

Table 1. Universal prevention of late-life suicide

Reference	Study Design	Model/Conditions	Age	Sample	Followup	Outcome Measures and Results	Limitations/Comments
Oyama, et al., 2004 [33]	Quasi-experimental	Screening for depression, followup with mental health care or psychiatric treatment, and health education on depression. Comparison group did not receive these services.	65+	7,070 residents of a rural agricultural region in Japan covering multiple municipalities (Joboji), compared to a neighboring region (Iwate).	5-year intensive period; 5-year maintenance period, compared to 5-year preparation period and 5-year baseline period. Approximately 30-60% of eligible older adults participated in program.	Suicide mortality in the intervention area decreased by 73% among men and 76% among women over 10-year study period compared to the 10-year baseline and preparation periods. No change was seen in rate of suicide among residents of the comparison region.	Non-randomized, time series analysis could allow for a regression to the mean; program not utilized by all older members in the region.
Oyama, et al., 2005 [34]	Quasi-experimental	Group activities, psychoeducation, and self-assessment of depression available to all older members of a region. Comparison group did not receive these services.	65+	6,817 residents of a rural agricultural region in Japan covering multiple municipalities (Yuri town), compared to a neighboring region (Chokai town).	8-year period prior to intervention, compared to 8-year period after beginning of intervention.	A 76% reduction in suicide was seen among females (age-adjusted incident rate reduction of 0.24; confidence interval (0.10 – 0.58). No change seen in rate of suicide among men or in the comparison region.	Non-randomized, time series analysis could allow for a regression to the mean, intervention only effective for females, program not utilized by all older members in the region.

Table 2. Selective and indicated prevention of late-life suicide

Reference	Study Design	Model/Conditions	Age	Sample	Followup	Outcome Measures and Results	Limitations/Comments
De Leo, et al., 2002 [40]	Quasi-experimental	TeleHelp-TeleCheck service: Twice weekly telephone support and emergency response for up to 20,000 persons referred by general practitioners or social workers.	65+ Mean: 80.0±6.8 years	18,641 older adults in the Veneto region of Italy. Most participants were widowed (68%), females (84%), lived alone (73%), and were partially self-sufficient (63%).	11-year period. 13% of the participants stopped using the service during the followup (45% due to death, 21% due to institutionalization, and other due to a move out of the area).	Observed suicides were significantly lower than expected (observed=6; expected=21). Resulted in significantly fewer suicides among women (n=2) than expected, but no difference in suicides among men (n=4), compared to expected number (n=9).	Non-randomized, intervention only effective for females. A previous examination of this program resulted in reductions in requests for home visits by general practitioners, hospital admissions, and depression scores.
Szanto, et al., 2003 [37]	Secondary analysis of three RCTs	Active treatment for depression with antidepressant medication or interpersonal psychotherapy.	59+ Range: 59-95 Mean: 72.0±7.4	395 inpatients and outpatients with major depression and active treatment with antidepressant medication alone or in combination with interpersonal therapy.	12 weeks.	Reports of suicidal ideation, thoughts of death, or feelings that life was empty decreased from 77.5% to 18.4%. Decrease in suicidal ideation took more time for those with a recent suicidal attempt or current ideation.	Reduction in suicidal ideation took an average of 1.5 months. Secondary analysis of outcome data from a combination of studies.
Bruce, et al., 2004 [38]	Multisite RCT	PROSPECT trial (Prevention of Suicide in Primary Care Elderly: Collaborative Trial). Depression treatment guidelines for older adults coupled with care management, compared to usual care (UC).	60+ Range: 60-94	Urban primary care patients with major or minor depression. 72% female. 28% minorities. Participants randomized to PROSPECT or usual care by site. Intervention: n=320 UC: n=278	4-, 8-, and 12-month followup. After 12 months, 31% of the intervention and 31% of the usual care group had dropped out.	Rates of suicidal ideation differed at baseline, but were similar by 4-, 8-, and 12-month interviews. Raw rates of suicidal ideation declined 12.9% in the intervention and 3.0% in usual care. Among only those patients with suicidal ideation at baseline, there was significantly greater reduction in suicidal ideation at 8 months in the intervention group compared to the usual care group. Differences in suicidal ideation among this subgroup did not differ at 4 or 12 months.	The intervention group had greater suicidal ideation at baseline and thus greater improvement in the intervention group may represent regression to the mean. Depression scores also improved more in the intervention group. Effects on suicidal ideation were more pronounced in those with major depression compared to those with minor depression. It is not known how suicidal ideation is reflected in suicidal behavior.

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.[46] 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.[1,47,6] 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.[15,48-53] Mental health services are infrequently utilized by older minority populations [54] and lower utilization rates may be associated with limited access, stigma, distrust of mental health providers, and limited availability of culturally-competent services.[55,56] 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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