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CLINICAL COMMENT



## Family Behavior Therapy for Alcohol and Drug Problems in Later-Life

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### ABSTRACT

Alcohol and drug use problems among older individuals are a growing public health concern. However, few treatments have been developed for this population, despite an emerging body of literature suggesting that older substance users are more likely to benefit from interventions tailored to meet their specific needs. In particular, older adults with a history of substance abuse have expressed a preference for treatments that focus on financial problems, physical health, and mobility issues, and make attempts to prescriptively involve supportive others in treatment. To address these needs, we developed a modified version of Family Behavior Therapy (FBT) for older individuals with substance use problems that involves participation from significant others and covers skills that are relevant to an older clientele. This modified form of FBT is illustrated through the case of Jack—a 55-year-old man with a longstanding addiction to methamphetamine. After completing 16 sessions, Jack's alcohol and drug use was substantially reduced, and he reported strong confidence in his ability to resist substance use in the future. Despite this promising first case, further work is needed to fully examine the efficacy of this modified version of FBT for older individuals with substance use problems.

### KEYWORDS

Behavioral interventions;  
behavior problems; family  
therapy; older adult;  
substance abuse

### Introduction

Substance abuse among adults age 50 and older is a growing public health concern (SAMSHA, 2012). In 2015, approximately 1.7% of individuals diagnosed with substance use disorders were 65 or older, however, 17.6% were adults age 50–64 (Center for Behavioral Health Statistics and Quality, 2016). There is growing evidence to suggest that the profile of the older adult substance abusing population (65+) will dramatically change within the next 5–10 years as the “baby boomer” generation enters older adulthood. Adults aged 50–64 are known to use and abuse drugs more than previous generations (Gfroerer, Penne, Pemberton, & Folsom, 2003), and illicit drug abuse (i.e., cocaine, methamphetamine, etc.) is much more common in this age group than those currently 65 or older (Searby, Maude, & McGrath, 2015; Wu & Blazer, 2011).

Thus, there will not only be a greater number of older adults in need of substance abuse treatment, but the type of substance use disorders being treated will likely change as well, suggesting an urgent need for novel approaches to the treatment of substance use disorders in late-middle age and older adults. In

addition, older substance users are less likely to seek treatment (Kessler et al., 2001), and are frequently excluded from substance abuse clinical trials, often due to mobility issues or comorbid medical disorders (Humphreys & Weisner, 2000; Zulman et al., 2011). Taken together, these trends underscore the need for treatments that work for older, substance-abusing adults.

However, substance abuse treatments sensitive to the needs of older individuals are conspicuously absent (Mowbray & Quinn, 2016; SAMSHA, 2012), despite a growing body of evidence supporting their benefits (Choi, DiNitto, & Marti, 2014; Morse, Watson, MacMaster, & Bridge, 2015). For example, substance-abusing older adults who participate in interventions tailored for an older clientele tend to stay in treatment longer, attend more sessions, and have better outcomes compared to usual care (Blow, Walton, Chermack, Mudd, & Brower, 2000).

Based on interviews with older individuals who had participated in a range of substance use interventions, Holland and colleagues (2016) suggested that treatments developed for substance abusing

older adults should consider factors related to finances, physical health, mobility, and make attempts to prescriptively involve significant others in treatment.

### **Family behavior therapy (FBT)**

Family Behavior Therapy (FBT) is one treatment option that may be particularly well-suited for older individuals with alcohol or drug use problems. FBT is one of only a few comprehensive treatments to demonstrate significant reductions in both illicit drug and alcohol abuse in clinical efficacy trials involving both adolescents and adults (Carroll & Onken, 2005; McGowan & Engle, 2010). It is a manualized treatment that includes modules designed to address issues common among substance abusing populations, including impulse and environmental management, motivation, financial strain, employment, family discord and comorbid psychopathology (Donohue & Allen, 2011; Donohue et al., 2009). In addition, FBT involves significant others who play a crucial role in treatment.

Although FBT has not been tested with an exclusively older adult sample, there is reason to believe that it could hold promise for this population. Specifically, the emphasis on supportive other involvement may be particularly beneficial as older adults with supportive family or social networks that do not permit alcohol or drug use could serve to limit substance use (Jennison, 1992; Satre, Mertens, Areán, & Weisner, 2004). Some research also suggests that spouse participation in treatment improves outcomes for substance abusing elders (Atkinson, Tolson, & Turner, 1993). The involvement of significant others in FBT substance abuse treatment is a notable advantage of its application to older adults as compared to traditional treatment services.

Nevertheless, few empirical studies have examined the efficacy of family-based interventions for older adults, and no study to our knowledge has examined a family-based intervention for substance use problems in later-life. Given these gaps in the literature, our purpose here is twofold. First, we describe the development of a novel version of FBT that incorporates modifications for older adults. Next, we present a case of a 55-

year-old man with longstanding methamphetamine (meth) problems who participated in this modified form of FBT.

### **Modifications to FBT for older adults**

FBT for substance abuse in later-life incorporates the existing interventions, structure, protocols, and therapeutic style evaluated in previous efficacy trials (Donohue et al., 2009), while also including modifications to address the unique needs and life circumstances of substance abusing older adults. For example, FBT handouts were modified to include enlarged text and simplified content to enhance the readability and utility of handouts. More specifically, in Table 1 each FBT module is briefly described with an accompanying explanation of the modifications that were made for an older clientele. These modifications are advantageous as compared to traditional approaches because current evidence-based therapies are primarily validated in younger adult samples (Zulman et al., 2011), and are commonly applied to older adults without a great deal of consideration of the unique life circumstances common among older adults entering substance abuse treatment. These modifications are also easily incorporated into the traditional FBT framework, and give providers flexibility in treating well-functioning older adults as well as those that are displaying a greater degree of age-related impairment.

Of particular note, this modified version of FBT included opportunities to explore and pursue Meaningful Pursuits, beyond paid employment, including volunteer work and other community activities. The repertoire of interpersonal communication skills were also expanded to enhance older individuals' ability to repair damaged relationships, ask for help when needed, and productively navigate interpersonal challenges that may arise in and out of the home.

### **Case presentation**

This modified version of FBT was implemented by the first author (CPP) under the supervision of the second author (JMH). The client, a 55-year-old Caucasian man we will refer to as Jack, responded to an advertisement for outpatient FBT services. At his initial

**Table 1.** Family Behavior Therapy Components and Modifications for Older Individuals

FBT Component	Description	Special Considerations for Older Adults
1. Behavioral Goals and Rewards	Involves developing a list of triggers to alcohol and drug use, developing behavioral goals and utilizing significant others (SOs) to contingently reward goal completion.	Standardized list of antecedents to alcohol and drug use was expanded to include antecedents common among older adults, such as boredom, loneliness, and late life stressors (e.g., loss, chronic pain) (Schofeld & Dupree, 1991).
2. Treatment Planning	Client and SO asked to rank order FBT interventions from a standardized list based on the importance of each intervention to the client's problems.	Modified from previous iterations of FBT to account for the possibility that some clients could need more help in planning the course of treatment.
3. Self-Control	Focuses on identifying antecedents of drug and alcohol use and developing skills to resist cravings when antecedents are present.	Modified to account for antecedents common among older adults (e.g., boredom, loneliness, chronic pain).
4. Environmental Control	Concentrates on identifying environmental contingencies that either increase or decrease the likelihood of substance use and scheduling assignments to spend more time with people, places and things that decrease the likelihood of substance use.	Environmental contingencies unique to older adults, such as managing addictive medications and structuring one's day with activities (inconsistent with alcohol/drug use) that can be performed regardless of cognitive or physical status were included (Mowbray & Quinn, 2016).
5. Communication Skills Training	This module includes <i>Positive Request</i> and <i>Reciprocity Awareness</i> , which focus on developing skills to express needs to others and increase positive communication.	Communication skills modules were expanded to include <i>Interpersonal Effectiveness</i> training, which involved learning skills related to assertive communication (e.g., using "I" language), active listening, and staying on point to enhance the quality of social support (SAMHSA, 2001; Wang, Kearney, Jia, & Shang, 2016).
6. Job-Getting Skills Training/ Meaningful Pursuits	Involves learning to identify and pursue employment opportunities.	This module was expanded and relabeled, <i>Meaningful Pursuits</i> , to provide older adults with activities that feel personally meaningful and support a substance free lifestyle. This includes acquiring employment (i.e., Job-Getting Skills) or other meaningful activities when employment is not feasible or desired (e.g., disabled, retired).
7. Financial Management	Focuses on working with the client and their SO to balance finances and strive towards reducing or eliminating debt.	Supplemental information was included on financial issues that are likely to be relevant to older individuals (e.g., retirement planning, securing elder-specific housing if necessary, saving, etc.) (Solway, Estes, Goldberg & Berry, 2010).

Note: SO = Significant other.

interview, Jack reported living with his 48-year-old girlfriend, Rachel, and 52-year-old brother in the home of his deceased father, who died only 1 month prior. Jack was dependent on his father for housing and financial support at the time of his death. At the initiation of treatment, Jack's primary source of income was from disability disbursements due to a chronic injury to his leg resulting from a motorcycle accident when he was younger. Given his issues with chronic pain and difficulties with both alcohol and illicit substance use, in many ways Jack exemplifies the complexity of problems experienced among those in the aging baby boomer population—10,000 of which turn 65 every day in the United States (Pew Research Center, 2010).

### **Pretreatment assessment**

Jack was asked about his substance use over the past 90 days at his pretreatment assessment using the Timeline Followback method (Sobell & Sobell, 1992). He reported having about 8–9 drinks per day, on average, and bingeing on alcohol approximately 10 times in a typical month. Jack also acknowledged smoking meth nearly every day during this same time. Further, on a brief Situational Confidence Questionnaire (Breslin, Sobell, Sobell, & Agrawal, 2000), Jack was initially only 41% confident (range, 0% to 100%) in his ability to resist substance use in a variety of situations.

### **Course of treatment**

#### **Sessions 1–4**

Consistent with the FBT model, one of the initial goals of treatment was to teach Jack strategies to identify and manage drug cravings (Self Control) and environmental triggers to substance use (Environmental Control). Jack struggled initially to learn the Self Control skills as he had problems recollecting triggering events immediately prior to his drug use. Following repeated practice and coaching, Jack began to feel comfortable using the skill. Jack reported that saying “Stop!” and thinking of negative consequences to using alcohol and drugs was particularly helpful for managing his urges.

Environmental Control was implemented to assist in identifying triggers to substance use. Jack stated that he's “been using drugs so long pretty much everything is a trigger.” However, following multiple queries he reported drugs/paraphernalia, interpersonal conflict, loneliness, finances/employment, and housing problems to be the most prominent triggers for him.

Jack's girlfriend, Rachel, agreed with his assessment and reported that he will often “disappear” after arguments and return home “high” and irritable. Jack reported that conflict with Rachel made it difficult to resist drug use, but he felt that “being alone would make it nearly impossible.” Jack tearfully reported that he wanted to learn how to be a “good man” and “treat his woman right.” The importance of using these skills in real life situations was emphasized to motivate him to reach his personal and relationship goals.

Jack also found it very difficult to develop a “safe list” of people, places or activities that would make him less likely to use substances as he felt he was his “own worst enemy.” However, he reported that he does find it easier to stay sober when he is working, at church, spending time with sober peers, and attending recovery meetings. Assignments were scheduled each week to spend more time engaged in these activities. Jack showed notable improvements in his ability to resist drug use following the implementation the Self Control and Environmental Control modules, reducing his meth and alcohol use from daily to 1–2 days per week.

#### **Sessions 5–8**

Jack reported that one of his primary triggers to substance use was related to interpersonal conflict. Jack and Rachel often argued in session when any issue relevant to their relationship was discussed. They automatically began to accuse and blame each other for their problems and were unable to effectively communicate their needs.

Communication skills training was implemented when this occurred to teach them how to clearly identify what they were trying to communicate to each other and then follow the standardized “Positive Request” format to express the need in a non-combative and diplomatic manner. It took several role-plays with the therapist before

Jack was able to practice the skill effectively with Rachel. She expressed her appreciation to him for making an attempt to change the way he communicates with her and reported a greater desire to listen and follow through with his request when he is not aggressive or confrontational.

Similarly, Reciprocity Awareness and Interpersonal Effectiveness were implemented in-session when Jack appeared agitated or when conversation began to spiral in a negative direction. For example, Jack and Rachel were asked to state things that they loved, admired or respected about each other. Each skill was role played first with the therapist, and feedback was then provided. Once Jack showed that he could implement the skill he was asked to practice with Rachel in session. Homework was then assigned to practice the skills at home. Jack often struggled to complete practice assignments at home, but Rachel indicated that she noticed a positive change in the way he was communicating with her.

### **Sessions 9–12**

Jack reported that the stress related to his finances also often led him to use drugs. He described his finances as “a mess,” and had debt collectors calling him daily. Financial Management was implemented requiring Jack to list his expenses and income from all sources. A plan was developed to minimize spending and acquire employment in order to focus Jack’s resources on his mounting debt. He was also referred to debt consolidation programs.

Jack reported that going through his finances in a structured format was an “eye-opening” experience. He found out he was making enough money each month to survive independently, but his expenses on substances and substance-related activities each month were largely responsible for his mounting debt. Jack was frustrated that he was struggling to survive each month, which provided further motivation to abstain from substances. In response to this increase in motivation to stay clean, strategies to manage cravings (Self Control) and environmental triggers (Environmental Control) were reviewed to ensure he was sufficiently prepared.

### **Sessions 13–16**

Once Jack began to consistently abstain from substance use, he struggled to fill his time with positive activities that supported a substance free lifestyle.

Meaningful Pursuits was implemented to develop a list of activities that interested him (e.g., recovery group, attending church, applying to work at a local mining company). Each activity was segmented into smaller, achievable goals and homework was assigned each week to incorporate these activities into his daily life. Rachel was asked to support Jack in this process by encouraging him to engage in his scheduled activities and if completed, to reward him with additional time together doing something fun. In the last few sessions, Jack began to attend church regularly and made attempts to participate in his church’s recovery group.

### **Between-session phone calls**

Phone calls were completed between each session to check in on assigned homework, encourage significant other support, and problem-solve barriers to accomplishing goals. These calls were rated by Jack as one of the most helpful features of the treatment in maintaining his motivation to avoid substance use in his daily life, especially when his natural supports were unavailable or perceived as unhelpful.

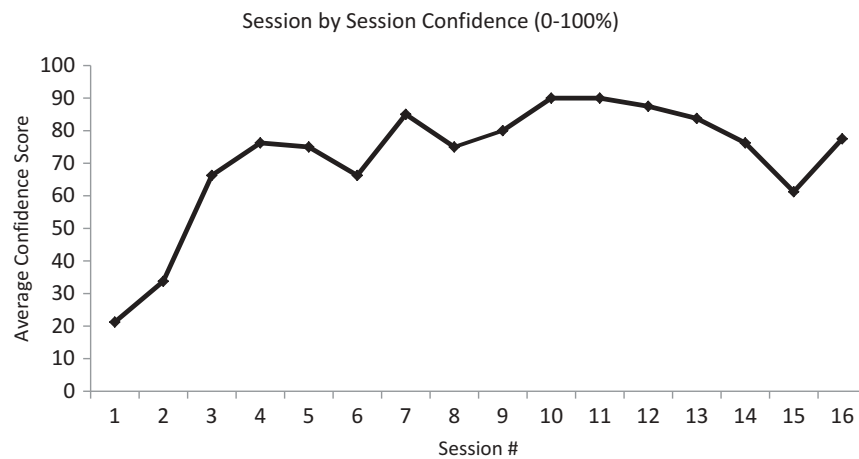
### **Post-treatment assessment**

In the 90 days preceding the post-treatment assessment, on average, Jack reported having .66 drinks daily (reduced by 8 drinks since pretreatment), including 1.67 binges per month (roughly 8 fewer binges than at pretreatment). Jack also saw notable reductions in his meth use, reporting only 7 days of use in the last 90 days (83 less than at pretreatment).

By the end of treatment, Jack reported being 85% confident in his overall ability to resist substance use (up 44% from pretreatment). [Figure 1](#) shows a graphical representation of Jack’s self-reported confidence to resist substance use across all sessions.

### **Treatment fidelity**

During the course of treatment, the provider followed standardized, step-by-step protocols for the delivery of each FBT intervention, and made checks for each completed step. The overall adherence score was 94.3%, suggesting good adherence to the FBT model.



**Figure 1.** Client's Confidence to Refrain from Substance Use across Sessions

## Discussion

This initial case trial represents one of the first efforts to develop and evaluate a family-based comprehensive intervention for substance abuse problems in later life. Though we cannot generalize beyond this one case, this preliminary test provides promising data suggesting that a modified form of FBT could be efficacious for those with substance abuse problems in later periods of life. In Jack's case, significant other support, primarily from his girlfriend, was used to motivate and support him to practice techniques outside of session. We believe that a similar approach could be used for other older individuals with substance use problems who may have difficulty staying focused on recovery goals and need additional support and encouragement.

A few points regarding the administration of this modified form of FBT are worth noting. First, regular between-session phone calls were made in this case and were reported as quite useful by Jack. Though future studies are needed to determine the precise added value of making between-session phone calls with older adults, when memory problems or other obstacles are anticipated to interfere with treatment goals, phone calls may serve to remind clients of assigned home practice, problem-solve unanticipated barriers, and ultimately increase compliance with the treatment.

It is also noteworthy that the two interventions that were most different from the original FBT protocol—Meaningful Pursuits and Interpersonal

Effectiveness—were well tolerated and were reported by Jack to be helpful. The Meaningful Pursuits module, which involved providing job-getting skills and exploring various volunteer and community activities, was welcomed and approached enthusiastically, particularly after initial levels of substance use were reduced and he was searching for positive activities to fill time that was once consumed by alcohol and drugs. We similarly found in this case, that as Jack began engaging in more meaningful and social activities, the need for interpersonal effectiveness skills and coaching increased. The Interpersonal Effectiveness module (e.g., involving practice with skills related to active listening, assertive communication, and staying on point) provided some foundation for navigating difficulties that could arise in new or tense interpersonal situations, which in Jack's case, was reported as quite relevant and helpful.

Despite these promising, preliminary results, future research should seek to validate the efficacy of FBT for substance abuse problems in later life using larger samples and a control group. Future studies would also do well to evaluate this intervention with diverse populations (e.g., with regard to culture, socioeconomic status, or medical comorbidities). Trials with older individuals, in their 60s, 70s, or 80s would also be advisable. Although Jack experienced some issues that were similar to what might be seen among those in older cohorts (e.g., problems with health, finances, transportation), he differed in several important ways. Specifically, he was able to work despite his chronic injury, was actively seeking treatment, and his cognitive abilities were largely intact. These

differences may, to some degree, hinder the generalizability of this case to 65+ adults. However, this case example is an important step in the development of substance abuse treatments that meet the unique needs of the “baby boomer” generation as they progress into older age.

### Clinical implications

The need is great for evidence-based programs in the treatment of substance abuse in later life, and there continues to be persistent calls among researchers and providers to develop and evaluate evidence based programs for substance abusing older adults. Notably, 82% of substance abuse treatment centers do not provide services tailored to the needs of older adults (Rothrauff, Abraham, Bride, & Roman, 2011), despite the growing evidence suggesting that elder specific treatments result in notable improvements in retention, engagement and outcomes (Blow et al., 2000). With some modification, FBT appears to be a viable treatment option with this population. Once tested and refined in larger trials, FBT could be disseminated to help meet the growing demand for treatments of late-life substance abuse.

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### References

- Atkinson, R. M., Tolson, R. L., & Turner, J. A. (1993). Factors affecting outpatient treatment compliance of older male problem drinkers. *Journal of Studies on Alcohol*, *54*, 102–106. doi:10.15288/jsa.1993.54.102
- Blow, F. C., Walton, M. A., Chermack, S. T., Mudd, S. A., & Brower, K. J. (2000). Older adult treatment outcome following elder-specific inpatient alcoholism treatment. *Journal of Substance Abuse Treatment*, *19*, 67–75. doi:10.1016/S0740-5472(99)00101-4
- Breslin, F. C., Sobell, L. C., Sobell, M. B., & Agrawal, S. (2000). A comparison of a brief and long version of the situational confidence questionnaire. *Behaviour Research and Therapy*, *38*, 1211–1220. doi:10.1016/S0005-7967(99)00152-7
- Carroll, K. M., & Onken, L. S. (2005). Behavioral therapies for drug abuse. *The American Journal of Psychiatry*, *162*, 1452–1460. doi:10.1176/appi.ajp.162.8.1452
- Center for Behavioral Health Statistics and Quality (CBHSQ). (2016). *2015 national survey on drug use and health: Methodological summary and definitions*. Retrieved from <http://www.samhsa.gov/data/>
- Choi, N. G., DiNitto, D. M., & Marti, C. N. (2014). Treatment use, perceived need, and barriers to seeking treatment for substance abuse and mental health problems among older adults compared to younger adults. *Drug and Alcohol Dependence*, *145*, 113–120. doi:10.1016/j.drugalcdep.2014.10.004
- Donohue, B., & Allen, D. N. (2011). *Treating adult substance abuse using family behavior therapy: A step-by-step approach*. Hoboken, NJ: John Wiley & Sons.
- Donohue, B., Azrin, N., Allen, D. N., Romero, V., Hill, H. H., Tracy, K., & Van Hasselt, V. B. (2009). Family behavior therapy for substance abuse and other associated problems: A review of its intervention components and applicability. *Behavior Modification*, *33*, 495–519. doi:10.1177/0145445509340019
- Gfroerer, J., Penne, M., Pemberton, M., & Folsom, R. (2003). Substance abuse treatment need among older adults in 2020: The impact of the aging baby-boom cohort. *Drug and Alcohol Dependence*, *69*, 127–135. doi:10.1016/S0376-8716(02)00307-1
- Holland, J. M., Rozalski, V., Beckman, L., Rakhkovskaya, L. M., Klingspon, K. L., Donohue, B., & Gallagher-Thompson, D. (2016). Treatment preferences of older adults with substance use problems. *Clinical Gerontologist*, *39*, 15–24. doi:10.1080/07317115.2015.1101633
- Humphreys, K., & Weisner, C. (2000). Use of exclusion criteria in selecting research subjects and its effect on the generalizability of alcohol treatment outcome studies. *American Journal of Psychiatry*, *157*, 588–594. doi:10.1176/appi.ajp.157.4.588
- Jennison, K. M. (1992). The impact of stressful life events and social support on drinking among older adults: A general population survey. *International Journal of Aging and Human Development*, *35*, 99–123. doi:10.2190/F6G4-XLV3-5KW6-VMBA
- Kessler, R. C., Aguilar-Gaxiola, S., Berglund, P. A., Caraveo-Anduaga, J. J., DeWit, D. J., Greenfield, S. F., ... Vega, W. A. (2001). Patterns and predictors of treatment seeking after onset of a substance use disorder. *Archives of General Psychiatry*, *58*, 1065–1071. doi:10.1001/archpsyc.58.11.1065
- McGowan, M. J., & Engle, B. (2010). Evidence for optimism: Behavior therapies and motivational interviewing in adolescent substance abuse treatment. *Child and Adolescent Psychiatric Clinics of North America*, *19*, 527–545. doi:10.1016/j.chc.2010.03.006
- Morse, S. A., Watson, C., MacMaster, S. A., & Bride, B. E. (2015). Differences between older and younger adults in residential treatment for co-occurring disorders. *Journal of Dual Diagnosis*, *11*, 75–82. doi:10.1080/15504263.2014.993263



- Mowbray, O., & Quinn, A. (2016). A scoping review of treatments for older adults with substance use problems. *Research on Social Work Practice, 26*, 74–87. doi:10.1177/1049731515579075
- Pew Research Center (2010). *Baby boomers retire*. Retrieved from <http://www.pewresearch.org/fact-tank/2010/12/29/baby-boomers-retire/>.
- Rothrauff, T. C., Abraham, A. J., Bride, B. E., & Roman, P. M. (2011). Substance abuse treatment for older adults in private centers. *Substance Abuse, 32*, 7–15. doi:10.1080/08897077.2011.540463
- Satre, D. D., Mertens, J. R., Areán, P. A., & Weisner, C. (2004). Five-year alcohol and drug treatment outcomes of older adults versus middle-aged and younger adults in a managed care program. *Addiction, 99*, 1286–1297. doi:10.1111/add.2004.99.issue-10
- Schonfeld, L., & Dupree, L. W. (1991). Antecedents of drinking for early- and late-onset elderly alcohol abusers. *Journal of Studies on Alcohol, 52*(6), 587–592. doi:10.15288/jsa.1991.52.587
- Searby, A., Maude, P., & McGrath, I. (2015). Growing old with ice: A review of the potential consequences of methamphetamine abuse in Australian older adults. *Journal of Addictions Nursing, 26*, 93–98. doi:10.1097/JAN.0000000000000076
- Simoni-Wastila, L., & Yang, H. K. (2006). Psychoactive drug abuse in older adults. *The American Journal of Geriatric Pharmacology, 4*, 380–394. doi:10.1016/j.amjopharm.2006.10.002
- Sobell, L. C., & Sobell, M. B. (1992). Timeline follow-back: A technique for assessing self-reported alcohol consumption. In R. Z. Litten, & J. P. Allen (Eds.), *Measuring alcohol consumption* (pp. 41–72). New York, NY: Humana Press.
- Solway, E., Estes, C. L., Goldberg, S., & Berry, J. (2010). Access barriers to mental health services for older adults from diverse populations: Perspectives of leaders in mental health and aging. *Journal of Aging & Social Policy, 22*, 360–378. doi:10.1080/08959420.2010.507650
- Substance Abuse and Mental Health Services Administration (SAMSHA). (2001). *Substance abuse among older adults: Treatment Improvement Protocol (TIP) series 26*. DHHS publication no. (SMA) 01–3585. Rockville, MD: U.S. Department of Health and Human Services.
- Substance Abuse and Mental Health Services Administration (SAMSHA). (2012). *Substance abuse among older adults: Treatment Improvement Protocol (TIP) Series*. Rockville, MD: U.S. Department of Health and Human Services.
- Wang, J., Kearney, J. A., Jia, H., & Shang, J. (2016). Mental health disorders in elderly people receiving home care: Prevalence and correlates in the national U.S. population. *Nursing Research, 65*, 107–116. doi:10.1097/NNR.0000000000000147
- Wu, L., & Blazer, D. G. (2011). Illicit and nonmedical drug use among older adults: A review. *Journal of Aging and Health, 23*, 481–504. doi:10.1177/0898264310386224
- Zulman, D. M., Sussman, J. B., Chen, X., Cigolle, C. T., Blaum, C. S., & Hayward, R. A. (2011). Examining the evidence: A systematic review of the inclusion and analysis of older adults in randomized controlled trials. *Journal of General Internal Medicine, 26*, 783–790. doi:10.1007/s11606-010-1629-x