

EDITORIAL

Psychosocial Interventions for Mental Disorders in Late Life: Are We Making Progress Toward Efficiency and Impact?

Christine McKibbin, Ph.D., Brett Deacon, Ph.D.

It is estimated that 20% of older adults in the general US population have a mental illness. Now that the anticipated age wave has arrived with the first of the baby boom cohorts turning 65, it is expected that we will see a dramatic increase in the number of older adults with mental illness.¹ In fact, the sheer number of older adults in need of psychiatric services is estimated to continue to increase over the next two decades, reaching 15 million by the year 2030.¹ This estimate is particularly concerning because late-life mental disorders may have detrimental consequences to older adults and their family members by increasing morbidity, disability, and mortality, and increasing the likelihood of relocation or institutionalization.²

A majority of older adults with mental illness who seek treatment are expected to present to and be managed by the primary care sector.³ Although psychosocial treatments of disorders like late-life major depression with probable efficacy are available,⁴ mental disorders are often underdiagnosed and undertreated, particularly in primary care settings.⁵⁻⁷ With recent educational efforts to reduce the unmet needs of older individuals suffering from mental disorders, primary care providers are more likely than ever in the past to identify some mental disorders (i.e., depression). These efforts, however, may result in cases of "met un-need," in which patients with subthreshold symptoms receive mental health diagnosis or treatment.⁸

One study presented in this issue of the *American Journal of Geriatric Psychiatry*, along with other work,^{9,10} suggests that overprescribing may be occurring in older adults. Maust and colleagues¹¹ examined psychiatric symptomatology in 412 low-income older adult patients who received newly written prescriptions for antidepressant, anxiolytic, or antipsychotic therapy. They found that almost one-half of the older-adult sample did not meet criteria for a mental health disorder. They also found a low level of psychiatric symptomatology for the majority of the group with few differences in physical, cognitive, and psychiatric functioning that were evident between patients receiving antidepressants, antipsychotics, and anxiolytics. Nearly one-third of all older adults in the study reported that poor sleep or stressful life events was the reason for the prescription and approximately one-half of the individuals did not know the reason for being prescribed an antipsychotic. Although Maust and colleagues¹¹ did not have corroborating physicians' reasons for the prescription, the authors speculated that primary care physicians may be using their most readily available tool, a prescription, to respond to patient reports of distress. Findings presented in this article highlight a pattern of overprescribing of psychiatric medications with unfavorable cost-benefit profiles to mildly symptomatic older adults. The authors also alert us to the importance of considering whether some type of psychological or social

Received July 10, 2011; accepted July 14, 2011. From the Department of Psychology, College of Arts and Sciences, University of Wyoming, Laramie. Send correspondence and reprint requests to Christine McKibbin, Ph.D., Department of Psychology, College of Arts and Sciences, University of Wyoming, 1000 E University Ave, Laramie, WY 82071. e-mail: cmckibbi@uwyo.edu

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intervention might be a more appropriate treatment, at least for some older adults. Perhaps primary care providers would benefit from increased access to mental health specialists, or by the increased prescription of psychosocial interventions (e.g., physical exercise) in place of pharmacotherapy for mildly distressed patients.

The efficacy of psychosocial interventions for treatment of mental disorders in older adults is encouraging.^{4,12} However, several reports have called upon researchers to do better in their effort to prevent mental illness and promote recovery.¹³⁻¹⁵ The recent National Institute of Mental Health (NIMH) strategic plan to improve mental health outcomes has called for a more disciplined scientific approach to preventing and treating mental illness.¹³ Likewise, the National Advisory Mental Health Council's work group (NAMHC), in their report titled, *From Discovery to Cure*,¹⁵ recommended that researchers systematically test the effects and the limits of somatic and behavioral therapies, separately and in combination, to understand their mechanisms of action. They also encouraged the personalization of interventions by accounting for patient preference and by understanding the biologic, behavioral, and psychosocial variables that moderate treatment response. Consequently, there has been a shift in intervention science from a field focused on the development of one-size-fits-all intervention packages and adaptation of those packages for different populations to a rapid formulation of novel interventions to optimally benefit persons with mental disorders.^{4,14,15} Each of the interventions featured in this issue of the *American Journal of Geriatric Psychiatry* represents one strategy to efficiently develop evidence-based psychosocial interventions and/or to understand moderating factors in outcome to aid in the process of personalization.

Many psychosocial interventions comprise a combination of individual components. While some of the intervention components pertain to an aspect of the actual program (e.g., program content), others may reflect a method of program delivery (e.g., whether the message is delivered by telephone or by face-to-face contact).¹⁶ Multiple components are often included in interventions with the idea that they will impact the targeted outcome. However, not all components have the intended effect. In fact, some components may have an effect that is counter to that which was intended.¹⁶ Collins and colleagues¹⁶ noted

that standard randomized controlled trials examine psychosocial interventions as a whole, thereby prohibiting the direct evaluation of any individual component, a collection of components, or the interaction between intervention components. It may also obscure the interacting effects of a particular component or collection of components, the individual, and/or the environment. Therefore, it is difficult to know at the outset of a large and expensive trial of an intervention, whether researchers have best combination of intervention components. It is also not known if they are delivering a set of components to the right people or whether, when it comes to a particular subgroup, they are "missing the boat."

Collins and colleagues¹⁶ propose a framework, titled Multiphase Optimization Strategy as one approach by which researchers can improve the efficiency of intervention development and potency of an intervention. Multiphase Optimization Strategy operates by *optimizing* the effect of an intervention package before completing a large confirmatory trial. The framework allows investigators to efficiently identify which components work well and which should be discarded or revised, which intervention component dosages are most appropriate, which intervention delivery elements enhance efficacy, and whether or not individual or group characteristics interact with the program components or intervention delivery strategies. Three phases of the optimization strategy for behavioral interventions as outlined by Collins include screening, refining, and confirmation.¹⁶

Two of the featured articles in this issue reflect the phase outlined by Collins and colleagues¹⁶ referred to as *screening*. In this phase, the researchers use theory and experimentation to select the important intervention components or combinations of components that have good potential for efficacy. Cohen-Mansfield and colleagues¹⁷ examined the impact of environmental, personal, and stimulus characteristics on level of engagement in nursing home residents. The goal of their work was to efficiently identify key intervention elements that promote engagement in older adults with dementia. Using the Comprehensive Process Model of Engagement, they examined the impact of multiple environmental (i.e., introduction type, sound, presence of others) and stimulus characteristics presented in a randomized order and measured engagement. They also utilized Generalized

Estimating Equations, which allowed them to simultaneously include multiple influences in their engagement model. While previous work has shown a single influence on engagement, Cohen-Mansfield and colleagues¹⁷ were able to show that a combination of effects including environmental, stimulus, and personal attributes impact engagement. Their results point to likely influences that, when incorporated into an intervention package for adults with dementia and/or their care providers, will result in a high potential for efficacy. The results also provide some initial indication of who may show the greatest benefit from interventions to promote engagement.

In situations where the objective is to improve an existing intervention, it is also consistent with Multiphase Optimization Strategy to begin with existing program components and supplement with new components.¹⁶ In another featured article in this issue, Lavretsky and colleagues¹⁸ tested an adjunctive intervention to reduce symptoms and improve functioning in older adults who had an incomplete response to pharmacotherapy. Specifically, the authors asked whether mind-body exercise added to escitalopram would augment the treatment of geriatric depression designed to achieve symptomatic remission and improvements in health functioning and cognitive performance. The authors reported a statistically significant advantage of augmenting escitalopram with *Tai Chi Chih* relative to health education. While these results are encouraging, it also appears that patients improved substantially after 4 weeks of escitalopram. The degree of additional improvement produced by these psychosocial interventions was modest and smaller than the three points considered necessary for clinical significance by the National Institute of Clinical Excellence.¹⁹ Additional work will be needed to understand the efficacy of *Tai Chi Chih* as a routine augmentation strategy. The addition of mind-body exercises to depression treatment, if confirmed to be efficacious in subsequent small screening trials and large confirmatory trials, would offer a highly transportable model for treatment of depression in older adults. The validation of delivery models involving electronic-based technology may improve the reach of this intervention to underserved, rural communities where access and travel are a challenge.

Another strategy to improve the potency of psychosocial interventions, which may be completed in

conjunction with a large randomized trial, is to understand the moderators of treatment response.¹³ Understanding the factors that influence response to treatment allows providers to personalize treatments by achieving the best match between patient and evidence-based practice. The final study featured in this issue involved the exploratory, post-hoc examination of age influences on treatment response to a telephone-delivered collaborative depression treatment program for comorbid mental illness in post-coronary artery bypass graft (CABG) surgery that was developed in a previous study.²⁰ Schulberg and colleagues²¹ asked whether there were differences in outcome for post-CABG patients with comorbid depression who were younger than 60 or age 60 or older. The telephone-based delivery model of this program is particularly interesting because, like Lavretsky and colleagues¹⁸ intervention, it represents a highly transportable model that can likely be used to reach more isolated adults for whom transportation is a barrier (e.g., rural or homebound adults). Schulberg and colleagues²¹ findings suggest that similar outcomes (i.e., depression response and remission rates) can be achieved by younger and older age groups and that these two groups respond to comparable components of collaborative care programming. These results provide some preliminary indication about whether a collaborative-care intervention can be disseminated, as is, to all post-CABG patients with depression or whether it should be adapted for subgroups of patients with particular sociodemographic or clinical characteristics. This study, taken together with others, will also inform both providers and patients about what collaborative care treatments are best for given patients' characteristics and circumstances.

In summary, there is a need for improved treatment of mental disorders experienced by older adults including improving the efficiency and speed with which we develop efficacious interventions as well as extending the reach of these interventions to underserved populations. This issue of the *American Journal of Geriatric Psychiatry* features the work of clinical researchers who are moving toward the efficient development of novel interventions or those who are examining factors that inform whether intervention programs for older adults are ready for dissemination. With novel intervention development, transportable treatment models, and innovative

delivery modalities, these and other researchers are moving toward the direction of the plan laid out by the NIMH strategic plan¹³ and the NAMHC report.¹² The NIMH strategic plan notes that none of the progress made in clinical research will have the necessary impact on public health unless we close the gap between what we know and what we apply in practice.¹⁴ Therefore, intervention developers should consider the dissemination endpoints early in the process of intervention development to maximize the feasibility and desire to adopt interventions by service providers at other points in the care delivery

system whether it be primary care, hospitals, nursing homes, or home-based care and in rural or urban settings. We are on our way toward creating efficient and impactful psychosocial interventions to treat or augment treatment of mental disorders experienced by older adults, but we still have a long way to go.

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