Effects of Problem-Solving Therapy and Clinical Case Management on Disability in Low-Income Older Adults

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Objective: *To test the following hypotheses: (1) Clinical case management integrated with problem-solving therapy (CM-PST) is more effective than clinical case management alone (CM) in improving functional outcomes in disabled, impoverished patients and (2) improvement in depression, self-efficacy, and problem-solving skills mediates improvement of disability.* **Methods:** *Using a randomized controlled trial with a parallel design, 271 individuals were screened and 171 were randomized to 12 weekly sessions of either CM or CM-PST at 1:1 ratio. Raters were blind to patients' assignments. Participants were at least age 60 years with major depression, had at least one disability, were eligible for home-based meals services, and had income no more than 30% of their counties' median. The WHO Disability Assessment Scale was used.* **Results:** *Both interventions resulted in improved functioning by 12 weeks ($t = 4.28$, $df = 554$, $p = 0.001$), which was maintained until 24 weeks. Contrary to hypothesis, CM was noninferior to CM-PST (one-sided $p = 0.0003$, $t = -3.5$, $df = 558$). Change in disability was not affected by baseline depression severity, cognitive function, or number of unmet social service needs. Improvements in self efficacy ($t = -2.45$, $df = 672$, $p = 0.021$), problem-solving skill ($t = -2.44$, $df = 546$, $p = 0.015$), and depression symptoms ($t = 2.25$, $df = 672$, $p = .025$) by week 9 predicted improvement in function across groups by week 12.* **Conclusion:** *CM is noninferior to CM-PST for late-life depression in low-income populations. The effect of these interventions occur early, with benefits in functional status maintained as long as 24 weeks after treatment initiation (clinicaltrials.gov; NCT00540865).* (Am J Geriatr Psychiatry 2015; 23:1307–1314)

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INTRODUCTION

Disability in older adults is a major public health concern with numerous causes, the most common being depression.[1,2] In 2012, the World Health Organization (WHO) listed depression as the leading source of disability globally and a major contributor to disease burden worldwide.[3] Studies in older adults show that the likelihood of becoming disabled increases with each new symptom of depression and that the likelihood of recovering from a disability decreases as depression symptoms increase.[4,5] This is particularly true for older adults living in poverty. The number of older adults living in poverty is high, with 8.1% of U.S. adults aged 65–74 and 10% of those over 75 living below the official poverty line.[6] Older adults living in poverty are 2.6 times more likely to suffer from depression than middle-income older adults and are more likely to be disabled as a consequence.[7–10] The comorbidity of depression and disability in low-income older adults is high[11,12] and increases the cost of healthcare in the United States. These costs are largely due to the disabling effects of depression[13] and could be reduced if depression and the accompanying disability were treated effectively.[14–17]

A number of studies demonstrated the effect of depression treatment on disability in healthy older adults,[18,19] yet few large-scale clinical trials have investigated the impact of depression treatments on disability in low-income adults with physical limitations. A complexity of treating depression in low-income older adults is the limited access and acceptability of depression treatment. Low-income older adults prefer counseling-based interventions to medication management[20,21] and when treated with medications show poor compliance[22–24] and poor outcomes.[25] Psychotherapy, although preferred by this population, is limited in its availability and in its ability to address the social needs of people living in poverty.[26,27] Disabled, impoverished older adults experience numerous social and environmental stressors that require case management (CM) interventions to address unmet needs in a way that antidepressants and psychotherapy cannot.[27–30] Although psychotherapy may address disability through resolution of the depressive syndrome, CM has the potential to augment this effect by linking disabled, impoverished elders to social, medical, and rehabilitative services that may directly address behavioral and physical limitations.[30–32]

Given the preference for psychotherapies and the need for CM services, we developed an intervention that combines problem-solving therapy (PST)[33] with clinical CM.[27] Our decision to combine these two interventions was based on their potential synergy. We conceptualized CM as an intervention that provides access to social and medical resources and entitlements. Accordingly, it creates an environment in which a person with disability can maximize his or her function and reduce the experience of stress. CM has a beneficial effect on disability in adults.[34] PST can provide patients with the skills to use the resources made available by CM by setting goals and developing strategies to meet these goals on their own. Thus, we reasoned that combining CM with PST (CM-PST) has the best chance to reduce disability by providing access to much needed financial, social, and medical resources and by helping impoverished, depressed, disabled older adults develop the skills to use them. Based on the same reasoning, we further hypothesized that the advantage of CM-PST over CM alone in reducing disability would be mediated by reduction in depression and improvement in problem-solving skills and self-efficacy.

We already reported in this journal that CM was noninferior to CM-PST in reducing depression in a sample of disabled, impoverished, older adults with major depression.[35] This is the first report on the primary hypothesis of this study comparing the efficacy of CM-PST to that of CM alone in reducing disability. Further analyses examined whether change in depression severity, problem-solving skills, and sense of self-efficacy during this trial influenced disability at the end of the trial. Finally, we examined the moderating effects of unmet social service needs, depression severity, and cognitive functioning before treatment on differences in efficacy between interventions to determine for whom these treatments may be most effective.

METHODS

Participants

Participants were recruited from neighboring home-based meals programs near the two research sites, the Weill Cornell Institute of Geriatric