Published in final edited form as:

Int J Geriatr Psychiatry. 2010 August ; 25(8): 765–769. doi:10.1002/gps.2556.

Treating Depression in Disabled, Low-income Elderly: A Conceptual Model and Recommendations for Care

Patricia A. Areán, Ph.D.,
University of California, San Francisco

Scott Mackin, Ph.D.,
University of California, San Francisco

Eleanor Vargas-Dwyer, LCSW,
University of California, San Francisco

Patrick Raue, Ph.D.,
Weill Cornell Institute of Geriatric Psychiatry, Weill Cornell Medical College

Jo Anne Sirey, PhD,
Weill Cornell Institute of Geriatric Psychiatry, Weill Cornell Medical College

Dora Kanellopoulos, and
Weill Cornell Institute of Geriatric Psychiatry, Weill Cornell Medical College

George S. Alexopoulos, MD.
Weill Cornell Institute of Geriatric Psychiatry, Weill Cornell Medical College

Abstract

Background—The treatment of depression in low-income older adults who live in poverty is complicated by several factors. Poor access to resources, disability, and mild cognitive impairment are the main factors that moderate treatment effects in this population. Interventions that not only address the depressive syndrome but also manage social adversity are sorely needed to help this patient population recover from depression.

Methods—This paper is a literature review of correlates of depression in late life. In the review we propose a treatment model that combines case management to address social adversity with problem solving treatment to address the depressive syndrome.

Results—We present the case of Mr. Z, an older gentleman living in poverty who is also depressed and physically disabled. In this case we illustrate how the combination of case management and problem solving treatment can work together to ameliorate depression.

Conclusions—The combination of age, disability and social adversity complicates the management and treatment of depression. Case management and problem solving treatment are interventions that work synergistically to overcome depression and manage social problems.

Keywords

case management; depression; poverty; disability

Corresponding Author: Patricia A. Areán, PhD, Department of Psychiatry, University of California, San Francisco, 401 Parnassus Avenue, San Francisco, CA 949143.

Authors have no conflict of interests to report

Introduction

Poverty and depression in late life

10% of people over the age of 65 live at or below the poverty line (Census, 2004), and have higher rates of major depression (9%) than do community dwelling older adults (3.8%) (Gum, Arean, & Bostrom, 2007). Depression in older adults is treatable, particularly when access to these treatments is integrated into settings where older adults are most likely to use them. Studies integrating antidepressant medication management and psychotherapy into primary care settings find an increase in access to these treatments, as well as improved depression and function when compared to older adults who receive care as usual, with positive outcomes lasting as long as two years after treatment initiation (Hunkeler et al, 2006; Unutzer et al, 2002; Bruce et al, 2004). Additionally, data suggest that providing care in the home can reduce depression and increase functioning in older, disabled adults (Rabins et al, 2000; Ceichanowski et al, 2004; Van Citters & Bartels, 2004; Ell et al, 2007).

Although late life depression is a treatable illness in a variety of settings, low-income older adults benefit less from pharmacotherapy and psychotherapy than more affluent older adults (Cohen et al., 2006) Alexopoulos, 2001; Arean & Alexopoulos, 2007; Arean et al., 2005; Spillmann et al., 1997) (Gum et al., 2007). These individuals often experience financial strain, crime and violence and live in an unstable housing environment (Angel RJ, 2003; Gum et al., 2007; Krause, 1987), problems that antidepressant medication and psychotherapy cannot directly address. We argue that the care of depressed, low-income elders should offer direct help and advocacy to meet the social needs that these older adults cannot manage on their own, enhance their ability to utilize the resources that may become available to them, and address their depressive symptoms.

Depression, disability and poverty in late life

Poverty promotes depression by increasing the burden of medical illnesses contributing to depression because of poor health care and health related behaviors (Angel RJ, 2003; Arean & Alexopoulos, 2007; Bruce et al., 2004; Butler, 1991; Cairney & Krause, 2005; Corney, 1984; Dohan, 2002; Epping-Jordan, Bengoa, Kavar, & Sabate, 2001; Frojd, Hakansson, Karlsson, & Molarius, 2003; Garrett, 2003; Gilman, Kawachi, Fitzmaurice, & Buka, 2003; Gum et al., 2007; Krause, 2005; Mellor & Milyo, 2003; Nunez, Armbruster, Phillips, & Gale, 2003; Ostir, Eschbach, Markides, & Goodwin, 2003). It exposes individuals to chronic adversity as even their basic needs are often unsatisfied (Bruce ML, 1994; Butler, 1991; Cairney & Krause, 2005; von Goeler, Rosal, Ockene, Scavron, & De Torrijos, 2003). Disability, whether it comes from depression or from other medical conditions, adds another layer of chronic adversity (Arean et al., 2005; Bruce et al., 2004; Butler, 1991; Fry, 1993; Garrett, 2003; Gilman et al., 2003; Gum et al., 2007). Research suggests that many people in poverty have limited problem solving skills (Krause, 1987, , 1993; Lorant et al., 2003), which further enhance the experience of adversity through difficulties in utilizing available resources (Kraaij, Arensman, & Spinhoven, 2002; Krause, 1995; Ostir et al., 2003). Adversity from unsatisfied needs or from repeated failures contributes to poor self-efficacy, hopelessness, and eventually negative affect (Ashby, Isen, & Turken, 1999; Kraaij et al., 2002; Pudrovskaya, Schieman, Pearlin, & Nguyen, 2005), thus further fueling the experience of adversity and promoting depression (Kraaij et al., 2002; Krause, 2005; Krause & Baker, 1992; Moos, Brennan, Schutte, & Moos, 2006).

An intervention that addresses both access to services and improves problem solving skills may interrupt the spiral of interacting factors contributing to depression in low-income, disabled older adults. Case Management (CM) may improve access to health care and reduce the impact of medical disorders promoting depression, and through the provision of

other services, reduce hardship. Problem Solving Treatment can make elders become better managers of their lives (Krause, Herzog, & Baker, 1992), reducing the experience of adversity (Fry, 1993; Kraaij et al., 2002; Krause & Shaw, 2000). An intervention enabling patients to manage the problems they can address while also improving access to services maximizes the chances of overcoming depression (Ashby et al., 1999).

Case Management (CM)

Different types of case management exist but all share the theme of helping individuals cope with their illnesses through linkage to social services, advocacy, rehabilitation and ongoing support during recovery from illnesses (Moos et al., 2006). Mueser et al. (Nezu CM, 1998) have divided case management into rehabilitation models, intensive case management, and standard case management. Rehabilitation and intensive models are for patients with severe mental illness and involve an array of team-based services. Standard case management has largely been used for less severe mental illnesses, such as major depression, and for chronic health problems.

Standard case management is offered by case managers who are advocates for the client (Coleman & Newton, 2005). Problem resolution is achieved through a joint effort by clients and case managers, but the case managers do most of the problem solving on behalf of the client. Standard case management offers education about treatment, encouragement in utilizing resources, and crisis intervention. Case managers maintain long-term relationships with their clients so that they can monitor their changing needs and provide additional resources (Artistico, Cervone, & Pezzuti, 2003; Phillips, Smith, & Gilhooly, 2002). While CM has therapeutic ingredients (psychoeducation about depression, reduction of adversity, development of a relationship, encouragement, linkage to social and health services), we believe that case management is necessary but not sufficient to treat depression, and an active depression intervention should be part of CM.

Conceptual Consistency of Problem Solving Treatment (PST) with Case Management

Problem Solving Treatment (PST) is an intervention that has been found to be effective in treating depression in older adults (Areán et al., 2005; Johnsen M, 1999). The goal of PST is to teach clients how to objectively and systematically manage the problems that are either causing or exacerbating their depression. The goal of CM is to create a more favorable environment for its clients by addressing their social and health needs through linking clients to services, and thus problem solving is implicit in its mission. PST approaches patient problems from a different, yet complementary, angle. Unlike CM that seeks to increase the availability and utilization of resources by its clients, PST focuses on the patients themselves and helps them develop skills in identifying, prioritizing, and solving problems, and thereby creates a sense of empowerment. Thus, although CM and PST have different theoretical premises, they both focus on the resolution of concrete problems promoting depression.

Integrating PST with CM produces a synergy by compensating for each approach's limitations. A limitation of PST is that depressed low-income older adults often have problems that they cannot solve by themselves even after enhancement of their problem solving skills (Mueser, Bond, Drake, & Resnick, 1998). For example, accessing financial, legal, housing and medical services requires an understanding of the bureaucracy of these services that many low-income older adults do not have. Case managers can overcome some of the barriers through direct action. However, CM recipients rely on case managers and do not learn how to become their own advocates and feel empowered. Access to services alone is insufficient, because depressed elders may make limited use of them. Many depressed elders also have executive dysfunction, which leads to difficulties in planning, initiating, and sequencing their actions. PST has been found effective in such patients (Mueser et al., 1998).

Thus it is logical to expect that helping depressed elders with their needs and improving their ability to cope with stressors and to utilize their new resources would have a synergistic effect. Beyond logic, there is preliminary empirical evidence suggesting that PST can be integrated in CM (Kanter, 1989; Simpson, Miller, & Bowers, 2003) and may even be effective in depressed elders.

The application of CM-PST

UCSF and Cornell University have developed an intervention manual that combines the delivery of CM and PST together. This intervention has been studied on a small scale for feasibility in delivery by case managers who work for home-based meals programs, programs that are most likely to encounter low-income, disabled older adults, with promising results. Treatment consists of 12 weekly meetings in which the case manager teaches the patient the PST model and also updates him/her on case management activities during these sessions. Case management typically takes place between sessions and consists of service linkage, patient advocacy and support. PST consists of teaching seven steps in the problem solving process which includes generating a problem list, defining problems clearly and succinctly, setting a goal, generating solutions, picking the best solution and creating an action plan to implement the solution. CM activities and PST are delivered concurrently.

The first session consists of a needs assessment and education on the CM-PST process. The case manager explains the basic concepts of CM-PST and divides problems into those that the case manager will address and problems that the patient will work on using the PST model. During this introductory discussion, the case manager describes the PST process and indicates that both the case manager and client will use the same PST forms to solve problems. The next 10 minutes is devoted to needs assessment, prioritizing problems and dividing them into problems the case manager will work on and problems the client will work on. The remaining time is spent solving a problem using the PST forms and walking the client through the PST steps. By the end of the first session, both the case manager and the client each have a problem solving plan to implement. During the next 11 sessions clients are instructed how to use PST to solve jointly-identified problems. The case manager uses strategies described under CM to address problems determined to be above the client's ability to solve.

Poverty and disability in late life: The case of Mr. Z

Mr. Z was a 75 year old, widowed Caucasian man who suffered from macular degeneration and diabetes, which had resulted in above the knee amputation and subsequently difficulty getting from place to place. He was treated with insulin, the beta blocker atenolol, aspirin, and vitamins. Because of poor income, poor eyesight and limited mobility, Mr. Z had become increasingly depressed. His depressed mood was noted by his social worker who was unable to get him motivated to use the resources available to him. Psychiatric assessment of Mr. Z revealed that he met DSM-IV criteria for major depression, with impairment in day-to-day functions. According to his physician, Mr. Z should be able to manage his day-to-day activities, despite his illnesses. A case worker trained in case management and problem solving therapy (CM-PST) visited Mr. Z at his home and worked with him to identify problems that were above Mr. Z's ability to deal with as well as problems that Mr. Z could work on using a problem solving approach. Mr. Z's case worker was able to link him to paratransit, which enabled him to go to his senior citizen center and to his medical appointments. The case worker also made arrangements for Mr. Z to obtain a new prosthesis.

Furthermore, Mr. Z and the case worker used the PST approach to identify problems that Mr. Z could address. The case worker helped Mr. Z with decisions related to his daily

routine and some of his affairs, including setting limits with his son. Mr. Z identified the series of steps he needed to take prior to his visit to the senior citizen center, i.e. notify paratransit and prepare his clothes a day ahead of his visit, get up from bed well ahead of the time of his departure, and establish a routine for his personal hygiene. He used a similar approach for his medical visits and developed a plan for injecting his insulin and for taking his medication. Mr. Z also prepared a written list of contingency actions that he could undertake if challenged by his son. Twelve weeks after this intervention, Mr. Z's depressive symptoms subsided and his HDRS dropped to 7 from a baseline of 32. Mr. Z reported feeling connected with the world, supported by the services he had received, and empowered by his increased ability to prioritize his problems, think of alternatives, and decide on a course of action.

Conclusions

Depression afflicts 9% of low-income elders and occurs in the context of high medical burden and disability. Beyond personal suffering, family disruption, and exacerbation of disability, depression worsens the outcome of medical illnesses and increases the risk of suicide. The clinical context in which late-life depression occurs coupled with the limitations imposed by financial problems creates a formidable challenge for care. While pharmacotherapy can be efficacious, its benefits may be limited in depressed, low-income elders, who often experience executive dysfunction, a clinical state associated with poor treatment response. Very few older adults consistently take antidepressants, which even when taken regularly only results in a 35–40% remission rate. Psychotherapy alone may not be feasible or adequate for depressed, low income elders who have to struggle for their next meal, are distressed over the loss of their home, or live with pain and disability because of limited access to care. Case management (CM) facilitates access to social services and medical care and offers to its client's education about their treatment needs, and encouragement and support in utilizing their resources, especially those related to their treatment and rehabilitation. The resources offered by CM are critically needed by depressed, low-income elders. However, CM may be insufficient because it does not enrich its clients' behavioral repertoire with problem solving skills needed to negotiate adversity and to overcome the inertia created by depression. Clinical logic and emerging empirical data suggest that integrating CM with PST may have a synergistic effect in depressed low-income elders, as CM can help them with their social needs and PST can improve their ability to cope with chronic stressors and utilize their new resources. Case workers are often social workers, whose professional orientation is focused on problem solving approaches, including case management. We have documented that social workers can be trained in PST. Like CM, PST when delivered in patients' homes has been well accepted. Thus, CM-PST has the potential to be an efficacious and efficient clinical intervention addressing the complex socioeconomic and clinical problems of the most disadvantaged and suffering elderly population.

References

- Alexopoulos GS. Interventions for depressed elderly primary care patients. *Int J Geriatr Psychiatry*. 2001; 16(6):553–559. [PubMed: 11424163]
- Angel RJFM, Angel JL, Chiriboga DA. Financial strain and health among elderly Mexican-origin individuals. *J Health Soc Behav*. 2003; 44:536–551. [PubMed: 15038148]
- Areán PA, Alexopoulos G. Psychosocial interventions for mental illness in late-life. *Int J Geriatr Psychiatry*. 2007; 22(2):99–100. [PubMed: 17245798]
- Areán PA, Gum A, McCulloch CE, Bostrom A, Gallagher-Thompson D, Thompson L. Treatment of depression in low-income older adults. *Psychol Aging*. 2005; 20(4):601–609. [PubMed: 16420135]

- Artistico D, Cervone D, Pezzuti L. Perceived self-efficacy and everyday problem solving among young and older adults. *Psychol Aging*. 2003; 18(1):68–79. [PubMed: 12641313]
- Ashby FG, Isen AM, Turken AU. A neuropsychological theory of positive affect and its influence on cognition. *Psychol Rev*. 1999; 106(3):529–550. [PubMed: 10467897]
- Bruce MLHR. Social and physical health risk factors for first on-set major depressive disorder in a community sample. *Soc Psychiatry Psychiatr Epidemiol*. 1994; 29:165–171. [PubMed: 7939965]
- Bruce ML, Ten Have TR, Reynolds CF 3rd, Katz II, Schulberg HC, Mulsant BH, et al. Reducing suicidal ideation and depressive symptoms in depressed older primary care patients: a randomized controlled trial. *Jama*. 2004; 291(9):1081–1091. [PubMed: 14996777]
- Butler RN. The poverty of living alone. *Geriatrics*. 1991; 46(10):13.
- Cairney J, Krause N. The social distribution of psychological distress and depression in older adults. *J Aging Health*. 2005; 17(6):807–835. [PubMed: 16377773]
- Cienchanowski P, Wagner E, Schmalting K, et al. Community-integrated home-based depression treatment in older adults: A randomized controlled trial. *JAMA*. 2004; 291(13):1569–1577. [PubMed: 15069044]
- Census, U. 2004. <http://www.census.gov/hhs/www/poverty.html>.
- Cohen A, Houck PR, Szanto K, Dew MA, Gilman SE, Reynolds CF 3rd. Social inequalities in response to antidepressant treatment in older adults. *Arch Gen Psychiatry*. 2006; 63(1):50–56. [PubMed: 16389196]
- Coleman MT, Newton KS. Supporting self-management in patients with chronic illness. *Am Fam Physician*. 2005; 72(8):1503–1510. [PubMed: 16273817]
- Corney RH. The mental and physical health of clients referred to social workers in a local authority department and a general practice attachment scheme. *Psychol Med*. 1984; 14(1):137–144. [PubMed: 6709779]
- Dohan D. Managing indigent care: a case study of a safety-net emergency department. *Health Serv Res*. 2002; 37(2):361–376. [PubMed: 12035998]
- Ell K, Unutzer J, Aranda M, Ginns N, Lee P, Xie B. Managing depression in home health care: A randomized clinical trial. *Home Health Care Service Quarterly*. 2007; 26(30):81–104.
- Epping-Jordan J, Bengoa R, Kwar R, Sabate E. The challenge of chronic conditions: WHO responds. *Bmj*. 2001; 323(7319):947–948. [PubMed: 11679371]
- Frojd K, Hakansson A, Karlsson I, Molarius A. Deceased, disabled or depressed--a population-based 6-year follow-up study of elderly people with depression. *Soc Psychiatry Psychiatr Epidemiol*. 2003; 38(10):557–562. [PubMed: 14564384]
- Fry. Mediators of depression in community-based elders. In: Cappeliez P, FR., editor. *Depression and social environment: research and intervention with neglected populations*. Montreal: McGill-Queen's University Press; 1993.
- Garrett L. Gaps between the rich and the poor. The widening differences in wealth, life expectancy, public health infrastructure and perception of threats, and the consequences for global security. *EMBO Rep*, 4 Spec No. 2003:S15–S19.
- Gilman SE, Kawachi I, Fitzmaurice GM, Buka L. Socio-economic status, family disruption and residential stability in childhood: relation to onset, recurrence and remission of major depression. *Psychol Med*. 2003; 33(8):1341–1355. [PubMed: 14672243]
- Gum AM, Areán PA, Bostrom A. Low-income depressed older adults with psychiatric comorbidity: secondary analyses of response to psychotherapy and case management. *Int J Geriatr Psychiatry*. 2007; 22(2):124–130. [PubMed: 17096464]
- Hunkeler E, et al. Long term outcomes from the IMPACT randomized trial for depressed elderly patients in primary care. *BMJ*. 2006; 332(7536):259–263. [PubMed: 16428253]
- Johnsen MSL, Calsyn R, Blasinsky M, et al. Case management models for persons who are homeless and mentally ill: The ACCESS demonstration project. *Community Mental Health Journal*. 1999; 35:325–346. [PubMed: 10452700]
- Kanter J. Clinical case management: definition, principles, components. *Hosp Community Psychiatry*. 1989; 40(4):361–368. [PubMed: 2714749]

- Kraaij V, Arensman E, Spinhoven P. Negative life events and depression in elderly persons: a meta-analysis. *J Gerontol B Psychol Sci Soc Sci*. 2002; 57(1):P87–P94. [PubMed: 11773227]
- Krause N. Life stress, social support, and self-esteem in an elderly population. *Psychol Aging*. 1987; 2(4):349–356. [PubMed: 3268227]
- Krause N. Neighborhood deterioration and social isolation in later life. *Int J Aging Hum Dev*. 1993; 36(1):9–38. [PubMed: 8425749]
- Krause N. Assessing stress-buffering effects: a cautionary note. *Psychol Aging*. 1995; 10(4):518–526. [PubMed: 8749579]
- Krause N. Negative interaction and heart disease in late life: exploring variations by socioeconomic status. *J Aging Health*. 2005; 17(1):28–55. [PubMed: 15601782]
- Krause N, Baker E. Financial strain, economic values, and somatic symptoms in later life. *Psychol Aging*. 1992; 7(1):4–14. [PubMed: 1558704]
- Krause N, Herzog AR, Baker E. Providing support to others and well-being in later life. *J Gerontol*. 1992; 47(5):P300–P311. [PubMed: 1512435]
- Krause N, Shaw BA. Giving social support to others, socioeconomic status, and changes in self-esteem in late life. *J Gerontol B Psychol Sci Soc Sci*. 2000; 55(6):S323–S333. [PubMed: 11078109]
- Lorant V, Deliege D, Eaton W, Robert A, Philippot P, Ansseau M. Socioeconomic inequalities in depression: a meta-analysis. *Am J Epidemiol*. 2003; 157(2):98–112. [PubMed: 12522017]
- Mellor JM, Milyo J. Is exposure to income inequality a public health concern? Lagged effects of income inequality on individual and population health. *Health Serv Res*. 2003; 38(1 Pt 1):137–151. [PubMed: 12650385]
- Moos RH, Brennan PL, Schutte KK, Moos BS. Older adults' coping with negative life events: common processes of managing health, interpersonal, and financial/work stressors. *Int J Aging Hum Dev*. 2006; 62(1):39–59. [PubMed: 16454482]
- Mueser KT, Bond GR, Drake RE, Resnick SG. Models of community care for severe mental illness: a review of research on case management. *Schizophr Bull*. 1998; 24(1):37–74. [PubMed: 9502546]
- Nezu CMNA, Dudek JA. A cognitive behavioral model for assessment and treatment for intellectually disabled sexual offenders. *Cogn Behav Pract*. 1998; 5:25–64.
- Nunez DE, Armbruster C, Phillips WT, Gale BJ. Community-based senior health promotion program using a collaborative practice model: the Escalante Health Partnerships. *Public Health Nurs*. 2003; 20(1):25–32. [PubMed: 12492822]
- Ostir GV, Eschbach K, Markides KS, Goodwin JS. Neighbourhood composition and depressive symptoms among older Mexican Americans. *J Epidemiol Community Health*. 2003; 57(12):987–992. [PubMed: 14652267]
- Phillips LH, Smith L, Gilhooly KJ. The effects of adult aging and induced positive and negative mood on planning. *Emotion*. 2002; 2(3):263–272. [PubMed: 12899359]
- Pudrovskaya T, Schieman S, Pearlin LI, Nguyen K. The sense of mastery as a mediator and moderator in the association between economic hardship and health in late life. *J Aging Health*. 2005; 17(5):634–660. [PubMed: 16177454]
- Robins P, Black BS, Roca R, et al. Effectiveness of a nurse-based outreach program for identifying and treating psychiatric illness in the elderly. *JAMA*. 2000; 283(21):2802–2809. [PubMed: 10838648]
- Simpson A, Miller C, Bowers L. Case management models and the care programme approach: how to make the CPA effective and credible. *J Psychiatr Ment Health Nurs*. 2003; 10(4):472–483. [PubMed: 12887640]
- Spillmann M, Borus JS, Davidson KG, Worthington JJ 3rd, Tedlow JR, Fava M. Sociodemographic predictors of response to antidepressant treatment. *Int J Psychiatry Med*. 1997; 27(2):129–136. [PubMed: 9565719]
- Unutzer J, et al. Collaborative care management of late-life depression in the primary care setting: a randomized controlled trial. *JAMA*. 2002; 288(22):2836–2845. [PubMed: 12472325]
- Van Citters AD, Bartels SJ. A systematic review of the effectiveness of community-based mental health outreach services for older adults. *Psychiatric Services*. 2004; 55(11):1237–1249. [PubMed: 15534012]

von Goeler DS, Rosal MC, Ockene JK, Scavron J, De Torrijos F. Self-management of type 2 diabetes: a survey of low-income urban Puerto Ricans. *Diabetes Educ.* 2003; 29(4):663–672. [PubMed: 13677177]