

Guest Editorial

Public Health Models of Mental Health Care for Elderly Populations

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During the past 30 years, the growth of geriatric psychiatry services has been dramatic. Indeed, the majority of developed countries can boast of an impressive range of hospital-based, community-based, and long-term-care programs (Reifler & Cohen, 1998). For the most part, these services are traditional clinical services: The client (or caretaker) identifies a problem and the mental health professional offers comprehensive assessment and treatment.

Such services will not reduce substantially the burden of mental illness in elderly populations for two reasons. First, it appears that a relatively small proportion of elderly people with mental disorders have contact with these services. For example, among 27 elderly per thousand each year who have moderate-severe depression, 22 consult a family physician who detects the disorder in 5.3; of these, only 2.8 are referred to a psychiatric service, let alone a geriatric psychiatry service (Cole & Yaffe, 1996). Even if these clinical services were remarkably effective, only 10% of the elderly with depression would benefit from them. A similar argument applies to two other common mental disorders, dementia and delirium.

Second, traditional services do not address subsyndromal illness in elderly populations. The frequency distribution of depression symptom scores in an elderly community population in New York (Gurland et al., 1983) shows that a small proportion of subjects (14.8%) scored 8 or more points, indicating the presence of a probable depressive disorder. However, a larger proportion (26.4%) scored 3-7 points, indicating important symptoms but no disorder. There is evidence that subjects with such symptoms have outcomes intermediate between those with no symptoms and those with depressive disorders (Wells et al., 1989). A similar argument applies to symptoms of delirium in elderly medical inpatient populations: Patients with even one or two core symptoms of delirium have outcomes intermediate between those with no symptoms and those with DSM-defined delirium (Cole et al., submitted for publication). These findings suggest that the mental health care of elderly populations must reduce the frequency of symptoms as well as disorders.

Public health models of mental health care may be alternatives to traditional clinical services. These models involve many of the following elements:

identification of a problem by mental health professionals or society (based on its frequency, morbidity, mortality, and the potential for treatment or prevention), screening, prevention, or selective assessment and intervention. Three public health models include: 1. Identification of a population at risk and implementation of a population-based intervention; 2. Screening of a population at risk, identification of individuals at risk, and implementation of risk factor abatement programs for these individuals; 3. Screening of a population at risk, identification of individuals with symptoms or disorders, and implementation of treatment programs for these individuals. Examples of services for each of these models are described below.

MODEL 1: IDENTIFICATION OF A POPULATION AT RISK AND IMPLEMENTATION OF A POPULATION-BASED INTERVENTION

Llewellyn-Jones et al., 1999

This was a randomized trial of a multi-component intervention for depression in a large residential population in Sydney, Australia. Subjects identified to measure the impact of the intervention were aged 65 years or more, were cognitively intact, and scored 10 or more on the Geriatric Depression Scale (GDS). The population-based intervention (applied to all residents during 9 months) involved removing barriers to care (e.g., improved general practitioner and staff communication through monthly liaison committee meetings), carer education (e.g., interactive workshops for general practitioners on assessing and managing depression, depression education, and support for staff from a nurse specialist), and health education and promotion (e.g., encouraging resi-

dents to recognize depression, seek help, and attend positive activities; bimonthly newsletters combating misconceptions about depression; exercise, relaxation, and stress management classes; volunteer programs to provide emotional support and assist frail, isolated, and depressed residents). Outcomes were assessed using the GDS. At follow-up, there was significant movement to "less depressed" GDS scores in the intervention group ($p = .012$) and an average improvement of 1.87 points (95% confidence interval [CI], -2.97 to -0.76, $p = .001$) more on the GDS in the intervention group.

Lazarus & Hagens, 1968

This was a nonrandomized trial of a psychosocial intervention to prevent postoperative delirium in a surgical inpatient population. Subjects were cognitively intact middle-aged adults about to have open-heart surgery in Milwaukee. The population-based intervention involved preoperative psychiatric assessment, education, and support for all subjects by a psychiatrist and postoperative support and reorientation by the psychiatrist and a nurse. The outcome measure was the incidence of symptoms of delirium during the first 2 postoperative days. Overall, 19% of intervention subjects had symptoms of delirium, as compared to 33% of control subjects.

MODEL 2: SCREENING OF A POPULATION AT RISK, IDENTIFICATION OF INDIVIDUALS AT RISK, AND IMPLEMENTATION OF RISK FACTOR ABATEMENT PROGRAMS FOR THESE INDIVIDUALS

Inouye et al., 1999

This was a nonrandomized trial of a multicomponent intervention to pre-

vent delirium in a medical inpatient population. Patients were aged 70 years or more, with or without dementia, consecutively admitted to two general medical wards (intervention ward vs. usual care ward) in New Haven and who had at least one of six risk factors (cognitive impairment, sleep deprivation, immobility, visual or hearing impairment, dehydration) for delirium. The risk factor abatement program involved standardized intervention protocols for each of the six targeted risk factors. The outcomes measure was the incidence of delirium during hospitalization. The incidence of delirium was significantly lower in the intervention group (odds ratio [OR] 0.6, 95% CI 0.39-0.92, $p = .03$).

MODEL 3: SCREENING OF A POPULATION AT RISK, IDENTIFICATION OF INDIVIDUALS WITH SYMPTOMS OR DISORDERS, AND IMPLEMENTATION OF TREATMENT PROGRAMS FOR THESE INDIVIDUALS

Gustafson et al., 1991

This nonrandomized trial assessed a medical intervention for acute confusion in a surgical inpatient population. Subjects were 65 years or more, with or without dementia, admitted for emergency surgical repair of hip fracture in Sweden. The treatment component of the intervention involved several postoperative assessments by a geriatric specialist to detect and treat complications of surgery associated with confusion (e.g., anemia, heart failure, urinary tract infections, etc.). The outcome measures were the incidence and duration of severe confusion and length of hospital stay during the first week after surgery. There

were significant reductions in the incidence of severe confusion (6.8% vs. 29.7%, $p < .0001$) and length of hospital stay (11.6 days vs. 17.4 days, $p < .001$).

Banerjee et al., 1996

This randomized trial assessed an intervention for depression in a home care population. Subjects were socially isolated, disabled elderly receiving home care services in London. The intervention involved screening for depression and referral of depressed individuals to a multidisciplinary team (nurse, occupational therapist, social worker, psychologist, psychiatrist), formulation of a treatment plan, and implementation of the plan by one or more team members. The outcome measure was recovery from depression. More than twice as many subjects in the intervention group recovered (58% vs. 25%), difference 33% (95% CI for difference 10%-55%).

Rabins et al., 2000

This was a randomized trial that evaluated an intervention for mental disorders in a population aged 60 years or more and residents of six public housing sites in Baltimore. The intervention had four parts. First, the program nurse met with building management to introduce the program. Second, a structured education program (7 x 1-hour sessions) was conducted to enable building staff to recognize and refer residents needing mental health care. Third, the nurse visited weekly to receive referrals. Fourth, referred residents were contacted by telephone, then assessed at home by the nurse who subsequently discussed the case with a psychiatrist and implemented a treatment plan. Outcome measures (at 26 months) were the Montgomery Asberg Depression

Rating Scale (MADRS), the Brief Psychiatric Rating Scale (BPRS), and the number of undesirable moves. At follow-up, the intervention group scored 6 points less on both the MADRS and BPRS; there was no difference in the number of undesirable moves.

These public health models of mental health care are characterized by a concern for the mental health of elderly populations in their entirety and may include surveillance, health promotion, disease prevention, access to treatment, and evaluation. These public health models extend beyond simple clinical models that provide treatment only to those who request it, to include systematic approaches to identifying cases, facilitating access to treatment, ensuring the delivery of quality care, and assessing outcomes. These public health models of mental health care appear to provide opportunities that should not be disregarded, opportunities to reduce substantially the burden of mental illness in selected elderly populations.

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