Partners in Care: A Model of Social Work in Primary Care

Common problems in the elderly, such as reduced cognitive functioning, depression, medication safety, sleep abnormalities, and falls have been shown to exacerbate chronic physical problems, increase health care utilization, and cause premature entry into institutional settings. Focusing on these issues, the Partners in Care (PIC) project sought to address problems of the elderly as they relate to the fragmentation between the medical and psychosocial healthcare delivery system. PIC placed social workers into a variety of physician practice settings to identify at-risk elderly, particularly those with cognitive impairment and/or depression and to build a more closely linked system of care through social work interventions.

PIC builds upon a series of demonstration projects funded by The Hartford Foundation during the 1990s. These projects were aimed at enhancing primary care for the elderly by utilizing social workers and physician’s assistants within primary care settings to integrate medical care with social services. However, the projects did not study the cost-benefit to Medicare. While "every site achieved the objective of improving the quality and comprehensiveness of services," the initiative did not include a formal research evaluation, making it difficult to generalize about what works, under what circumstances, for whom, and why (Netting & Williams, 1999). Since this series of demonstration projects was reported, several studies on integrative care for older adults have been conducted that have shown promising results (Unutzer et al, 1997; Bartels et al, 2004).

The PIC project objectives are to assess the value of this model from a clinical and financial standpoint through a broad-based, multifaceted treatment/control research design. The PIC research evaluation commenced in February 2000, and all interventions and data collection activities were completed by December 2003. Subjects were enrolled at 7 treatment sites (where a PIC social worker was placed) and 4 control sites (no PIC social worker). Patients were seen by a total of 125 different physicians. The physician practice sites included fee-based private practices, heavily HMO funded private practices, a hospital-based university clinic, and a community-based hospital outpatient clinic.

These sites represent a broad range of demographic, educational, and socioeconomic variability, including African-American, Hispanic American, Russian immigrants, and Caucasian patients. The elderly PIC participants were drawn from middle class and predominantly minority practices in Chicago, as well as upper middle class suburban Cook County, downstate urban, and rural areas in Illinois.

A standardized interview, which took subjects between 30 to 60-minutes to complete, was conducted to gather demographic and clinical data. In addition, physician and staff satisfaction data were collected to determine the level and quality of the social workers’ integration into the practice team. We also conducted a six-month retrospective review of each subject’s medical chart.

In all, 2,0882 patients were enrolled in the research evaluation, which included demographic information and measurements and scales. There was a high retention rate at all sites (i.e., participants had at least one follow-up interview), reaching 95% at some sites. Patients 65 years
of age and older were recruited in the offices of their primary care physicians. Each signed an informed consent, and was given a battery of measurements and scales by trained research assistants or the PIC social worker. By research design, 452 (21.7%) participants were from control sites and were not eligible for PIC social work services, although for ethical and clinical reasons, physicians from these sites were provided any information about cognitive impairment and/or depression detected during the baseline data collection. They were free to use this information for patient follow up. Of the 1,663 PIC treatment site participants, 993 (60.8%) were logged as having received PIC social work services.

Presenting Characteristics of Elderly Persons in Diverse Primary Care Practices

Based on the full sample of 2088 patients, mean age of all participants was 75.9 years, with a range from 62 to 100. Most participants were female (63.5%) and most were married (45.2%) or widowed (37.9%): 5.7% were never married and 11.2% were divorced. 37.9% of participants were reported to be living with a spouse or partner, and 38.8% were living alone, while 10.3% lived with an adult child, 6.5% lived with a spouse, partner and some other person, and 6.4% lived with some other family member or friend. The majority of participants were non-Russian (60.7%), or Russian (11.9%) Whites; 22.1% were African American and 2.3% were Hispanic; 3% of participants listed "other" for ethnic group. Overall, educational levels were typical for older adults: 26.1% had completed high school, 23% had experience in a trade school or some college, and 21.6% had completed college. However, 17.6% reported educations of 8th grade or less and another 11.8% reported completing 9th-11th grade.

An important research question was to examine the prevalence of depression, prevalence of cognitive impairment, functional status, and stressors among older adults in the general primary care practice setting. Most of the patients in this research evaluation study showed no cognitive impairment at baseline: 83.4% scored between 24 to 30 on the Mini-Mental Status Exam. Another 14.2% showed mild impairment and just 1.7% showed moderate impairment. Less than 1% was found to have severe impairment. Similarly, most patients (77.8%) showed insufficient symptomatology to screen positively for depression at baseline, although 13.7% showed symptoms of mild depression while 5.7% displayed symptoms of moderate depression. However, 2.8% of patients showed symptoms of severe depression.

The SF-12 is a 12 question survey used to determine functional status in the domains of physical health and mental health. PIC participants scored somewhat below the mean of 50 for physical health status (42.93) but just above the mean of 50 for mental health status (51.36), though participants at some sites scored above the mean for mental health status only. Thus, as a group, the PIC sample had somewhat lower physical health status than average and showed a higher mental health status than physical health status. The mean score for all participants on the Hassles-R, a measure of stressors of daily life, was 8.31, though there was great variation by site with a high of 15.28 at one site versus a low of 4.08 at another. The lowest score possible on this measure is 0 (i.e., zero hassles), and the highest score possible is 60.

Results of the Research Evaluation Study

The PIC research evaluation study posed a number of research questions. These questions are addressed in our principal findings reported below:
All practices continued to participate throughout the duration of the program. At all treatment sites, physician staff surveys indicated a consistently high level of satisfaction with the social workers included on primary care teams (c.f., satisfaction survey results, focus group summaries). Six of the seven treatment sites elected to retain a social worker on staffs after formal funding of the PIC social worker ended.

25.3% of the treatment site sample screened positively for the presence of cognitive impairment, and 22% screened positively for the presence of depression. These two groups comprised our "signal" cases, i.e. those whom we targeted for intervention and flagged for special physician attention. Combined, the overall percent of our population who were signal cases (cognitively impaired, depressed, or both on screen) equaled 39.8% of all patients screened.

64% of the sample was identified as having current sleep problems.

15.2% had experienced at least one fall in the previous six months.

68.6% of all subjects completed the full year of interview. However, only 40.3 of those with cognitive impairment completed the study.

78.5% of those who screened positively for depression on screen did not complete the study.

Patients who demonstrated substantial cognitive deterioration during the study period were also likely to have received extended social work services (more than two sessions). Yet, despite cognitive deterioration, they also showed improvement in global measures of health and well-being.

Patients who obtained more intensive social work services to meet health/aging-related needs as well as financial problems demonstrated improved global mental health status and relative preservation of functioning, though, as a whole, their physical health declined.

Individuals who received limited social work intervention (two or less sessions), as expected, were relatively healthier and showed less change.

At four of the seven treatment sites, patients receiving more social work services demonstrated statistically significant clinical improvement on one or more outcome measures (i.e., GDS, Hassles-R, SF-12). Counter-trend effects were noted at only one site, an inner-site clinic where economic and health insurance problems played a major role in redirecting social work service delivery. Because of the significant financial problems and periodic need to change health insurance providers at this clinic, social work time was disproportionately spent on financial matters, as opposed to mental health matters.

At the treatment sites, those patients who screened positive for depression at baseline, as measured by the Geriatric Depression Scale (Yesavage et al., 1983) and who received more intensive social work services, demonstrated greater reduction in depression compared to those with limited or no social services. With respect to physician detection rates of depression, although some specific site effects were identified, no unequivocal findings regarding depression detection were identified. However, at the seven treatment sites we found significantly greater improvement in reducing false positives for depression than at control sites. Overall, both detection rates and false positive rates remain generally low across all sites.

The PIC project also attempted to determine the effectiveness of using the 7-minute screen (7MS) (Solomon, et. al., 1975) to predict the presence of Alzheimer’s Disease.
among elderly persons in diverse primary care practices. Without inclusion of a formal procedure for identifying the presence of Alzheimer’s Disease, this question may not be answered directly by the present design. However, at baseline, the 7MS found that 18.6% of participants screened positive for cognitive impairment. At the same time, the MMSE showed that 16.6% of all participants had mild to severe levels of cognitive impairment.

- Because this was a naturalistic study and physicians at the control sites were informed about signal cases, one control site established interventions on its own with a pharmacist. Another control site referred cognitively impaired patients to its geographically contiguous memory clinic. Thus, results from the control sites also show clinical improvements in one or more outcome measures.

- Mental health and aging knowledge were measured by the Palmore’s Facts on Aging and Facts on Mental Health quizzes, which were administered to physicians and office staff. Physicians, nurses, and secretarial staff showed improvement on the Facts on Mental Health Quiz from pre to post time. However, results on the Facts on Aging quiz did not change. Although clinicians improved in their knowledge of mental health and aging issues, no control site versus treatment site or other site differences were found. From baseline to follow-up, there were no significant differences between occupation groups.

- Consumer satisfaction remained high throughout the study, although there was some decline in both control and treatment groups. The control group scored somewhat better, although this finding may be skewed by the fact that one of the four control groups showed great improvement in consumer satisfaction. Shortly after our baseline data were obtained, this site introduced a new administrative process that substantially shortened lengthy waiting time and patients were seen on a much more timely basis. Although no evidence of greater satisfaction or improvement in consumer satisfaction was detected at treatment versus control sites, substantial site differences in satisfaction change were detected both within the set of treatment sites and within the set of control sites.

- Physician detection rates for cognitive impairment and depression did not appreciably change over the study, though there was wide variation from site to site. This reinforces our view that physicians need assistance in identifying cognitive impairment and depression. In general, symptoms of either depression or cognitive impairment were unlikely to be noted in patient charts. However, at the intervention sites, the number of false positives for depression declined significantly, suggesting that physicians were less likely to misidentify depression in patients who are not depressed following the introduction of the social worker.

- The most commonly-used social work service was related to financial need, followed closely by mental health needs. Both types of problems were found in over 1/3 of the treatment site patients who received social work services. Depression was associated with greater intervention, whereas cognitive impairment was associated with less mental health intervention but more personal care services.

- At three sites, improvement in Hassles-R (stressors of daily life) scores was positively related to the intensity of social work services. Subjects with limited social work interventions also showed improvement on this scale.

- Both in the full treatment sample, and within specific sites, "dose-effect" relationships were detected primarily on mental health measures. That is, more intensive social worker services were associated with greater reductions in depression (GDS) and greater improvement in the Hassles-R and Global Mental Health (SF12-mental component).
Such dose-effect findings were not detected for measures of physical health status (SF-12-PC), MMSE, or Instrumental Activity Function (Lawton IADL). Within-site analyses compared patient sub-groups defined by the amount of social work services received (i.e., “dosage” effects). Some significant effects were detected: for example, extended treatment cases showed a relatively greater reduction in depression (using the Geriatric Depression Scale) than limited treatment cases. Within particular sites, measures concerning mental health and well-being were more likely to show a dose-effect pattern than measures concerning physical health and functional status.

- Overall, our analyses showed no statistically significant differences for treatment sites to outperform control sites on change in measures of patient functional status, stress level, etc. However, we did find substantial changes within sites from baseline to follow-up, whether treatment site or control. This suggests that attempts to investigate treatment effects may be more successful if examining treatment group differences within site.

- Overall, our analyses showed no systematic tendency for treatment sites to outperform control sites on change in measures of patient functional status, stress level, etc. However, although general control versus treatment site differences were not detected, we did find substantial changes within sites from baseline to follow-up, whether treatment or control. This suggests that attempts to investigate treatment effects may be more successful if examining treatment group differences within site.

These results demonstrate that improved clinical outcomes are associated with the introduction of a social worker into primary care settings heavily populated with older patients. The PIC research team is awaiting financial data for further analysis to determine whether or not economic benefits also exist. Interviews, focus groups, peer reviews, discussions and repeated patient measures provide evidence to support advocacy efforts to reform Medicare and Medicaid’s funding policies. Advocacy should be directed toward adding a care management component that would be more responsive to the overall needs of older adults by integrating the medical and psychosocial approaches to patient care.

The PIC project demonstrates that it is possible to integrate a social worker into a primary care practice, but that efforts must be made to (1) establish routine paths for communication, (2) define protocols for patient referrals to the social worker, (3) delineate a process for facilitating results of the social workers’ assessments back to the physician, and (4) ensure that patients return for follow-up visits with the social worker. PIC has shown that the biopsychosocial model of care is associated with positive clinical outcomes, is logical and humane, and diminishes the fragmentation in our healthcare system.

Policy Implications of the PIC Research Evaluation Results
The PIC study generated a number of observations regarding health care delivery systems, primary care practice models, and reimbursement mechanisms. These findings are important for considering the policy implications of the PIC model. Most importantly, extended social work services (more than two social work contacts) were associated with better clinical outcomes at six of the seven treatment sites, suggesting that social work care management is vitally needed in primary care settings. Primary care physicians are deluged with the social and psychological needs of their patients.
However, most medical practitioners narrow their focus to concrete physical problems and realistically do not have time to explore or meet psychosocial needs. A brief screening tool to identify patients’ must be introduced to help physicians identify and address mental health issues. The current medical system, however, lacks the means to identify and address problems related to cognitive impairment, depression, and sleep problems. In addition, primary care sites are as diverse in organization, structure, and culture as the patient populations they serve. Nevertheless, there are similarities in arranging for the integration of social workers, including office logistics, development of relationships, and delivery of specific social services. Finally, curricula in medical schools and social work schools should include this critical information on how to utilize a social worker as part of the healthcare team, as well as how to screen for behavioral health issues.

1. Financial data was ordered from CMS when they became available in the summer of 2004 and will be available for analyses in the winter of 2004.
2. Sample sizes vary slightly for the different analyses described in this report, as findings may be based on a total sample of all treatment site participants and/or control site participants, or on a sub-group (for example, only treatment site patients receiving intensive social work services).