

Rural Integrative Care Planning in Sullivan County, New Hampshire

Rural Integrative Mental Health:
Best Practices Extended Bibliography

Prepared for:

Endowment for Health, Program Year 2008
Rural Integrative Care Project Stakeholders

Prepared by:

Anders Goranson, M.A.

Megan Phillips, M.A.

James Fauth, Ph.D.

Center for Research on Psychological Practice
Clinical Psychology Department
Antioch University New England



September, 2008

RURAL INTEGRATIVE MENTAL HEALTH BIBLIOGRAPHY

Amundson, B. (2001). America's rural communities as crucibles for clinical reform: Establishing collaborative care teams in rural communities. Families, Systems, & Health, 19(1), 13-23.

The authors discuss the successful implementation of a collaborative health care model within a rural community, emphasizing the sharing of human resources among care organizations. In the model, different institutions contribute members to a team, which is united structurally by care management software. Group members include physicians, social workers, behavioral health consultants, health educators, and case managers. One group member is assigned to head each case. Curriculum and training materials are used to build "teamness." Regular team meetings and family-focused treatment are central components of the program. Early findings from the team experience include increased professional cooperation and consultation between mental health and primary care. In addition, benefits have been seen in the management of particular diseases (diabetes, congestive heart failure, asthma), decreases in utilization rates of ER, office visits, and hospitalizations, and increased patient responsibility and compliance. Collaboration both improves services and reduces costs. The article provides useful information regarding structures for and benefits of collaborative care models. The article also highlights the need to assess provider availability within the rural community.

Arean, P.A., & Ayalon, L. (2005). Assessment and treatment of depressed older adults in primary care. Depression in Primary Care Medicine, 12(3), 321-335.

This article identified assessment and psychotherapeutic intervention techniques for older adults within a primary care setting. It also discussed the role of psychologists in managing depression within this population and setting. The authors reviewed assessment tools and psychotherapeutic techniques, providing their determinations of those most suitable to use with older adults in a primary care setting. On the basis of psychometric quality, ease of administration, and the demands of the primary care clinic setting, the authors suggest the use of the Patient Health Questionnaire (PHQ-9) and the Center for Epidemiological Studies-Depression Scale (CES-D). In regard to psychotherapeutic interventions, the authors suggest using Problem-Solving Therapy for Primary Care (PST-PC). The role of "depression care manager" is suggested for psychologists in this setting. This role consists of assessment, patient psychoeducation, treatment coordination with the PCP, monitoring of progress, and brief psychotherapy. The study stresses the importance of properly selecting both assessment tools and psychotherapeutic interventions when working with older adults in the primary care setting. The article also presents the possible role of "depression care manager" for psychologists or supervised students.

Badamgarav, E., Weingarten, S. R., Henning, J. M., Knight, K., Hasselblad, V., Gano, A., & Ofman, J. (2003). Effectiveness of disease management programs in depression: A systematic review. The American Journal of Psychiatry, 160, 2080-2092.

The authors performed a meta-analysis of 19 studies (from 1987 – 2001) on disease management of depression, with disease management being defined as "an intervention designed to manage or prevent a chronic condition by using a systematic approach to

health care and potentially employing multiple treatment modalities.” Outcomes indicated that disease management interventions resulted in statistically significant improvements in depressive symptoms, physical functioning, health status, satisfaction with treatment, and adherence to treatment regimens. One program was found to have a significantly larger effect than the others and was set apart from the others by an explicit screening component intended to increase the detection of depression. The authors highlighted the importance of this finding, given that 40%-50% of psychiatric disorders go undetected in primary care patients. This article is pertinent in its confirmation that interventions other than usual care improve depression outcomes in primary care. The authors did note that the disease management model is in its early stages and is still evolving, and that as mechanisms for implementation evolve and improve, efficiency, effectiveness and cost will likely improve as well. Future research on the following will be key: screening tools for use in primary care facilities, the costs of disease management programs and ways to offset costs, provider satisfaction, and mechanisms for implementation.

Baik, S., Bowers, B.J., Oakley, L.D., & Susman, J.L. (2005). The recognition of depression: The primary care clinician's perspective. Annals of Family Medicine, 3, 31-37.

This study sought to identify influences on primary care clinicians' (PCC) ability to recognize depression within the primary care setting, as well as examine the strategies of PCCs in responding to patient depressive symptoms. The authors used a grounded theory approach, interviewing eight PCCs, including family physicians, general internists, and nurse practitioners, with unstructured questions that served to guide the development of further conceptual categories for investigation in their conversations with PCCs. The study found three major influences on how PCCs responded to patient complaints of depressive symptoms, including how familiar they were with their patients, their general level of clinical experience, and time availability. They also identified three major processes that PCCs used to recognize depression. These included 1) “ruling out,” or disconfirming a broad range of medical-physical conditions before considering depression as a cause of the symptoms, perhaps due to stigma associated with mental health concerns, 2) “opening the door,” or allowing patients space to talk freely enough about their health concerns so that they were willing to share the personal information necessary for an accurate diagnosis of depression, and 3) “recognizing the person,” or asking a series of screening questions when they grew suspicious of mental health concerns based on a familiar patient's erratic behavior or complaints. The study is especially important in identifying the constraints that a highly time-limited practice can impose on the accurate diagnosis of depression within the primary care setting. It offers useful considerations for ways in which depressive symptoms can be more readily and successfully recognized.

Bauer, D., Batson, R., Hayden, W., & Counts, M. M. (2005). Integrating behavioral health services within a primary care center in a rural setting. Families in Society, 86, 63-70.

The Rural Care Program installs a team of licensed social workers (LSW) within primary care offices in rural, impoverished, and underserved settings in southwestern Pennsylvania. LSWs provide generalist services, including referrals, case management,

crisis intervention, education, support, and counseling. The project included six primary implementation processes: (a) defining direct behavioral health services, (b) planning and mobilizing support, (c) staff education and training, (d) interagency relationships and community involvement, (e) program evaluation and outcomes assessment, and (f) financial sustainability. Feedback from primary care doctors and nurse practitioners was very positive, indicating that they were able to do their own work more effectively and efficiently. The article touches on several pertinent issues, including accessibility, stigma and confidentiality, inter-agency collaboration, and community outreach and education. The authors acknowledged that additional funding is crucial for the continuance of the program beyond the initial 2-year grant period. The Primary Care Center associated with the study applied for and received the Federally Qualified Health Center status, which will allow the center to employ a licensed LSW beyond the grant period.

Bauer, M.S. (2001). The collaborative practice model for bipolar disorder: Design and implementation in a multi-site randomized controlled trial. Bipolar Disorders, 3, 233-244.

This article described a collaborative practice model (referred to as BDP) for bipolar disorder that emphasizes illness management skills by the patient, support of provider accessibility, and joint-decision making between patient and provider. The goal is to improve collaboration between patient and caregivers as a step toward reducing costs of treatment and decreasing the ‘efficacy-effectiveness’ gap between controlled trials and effective treatment within general medical practice. The model includes three manualized components: 1) provider support through standardized algorithm-driven somatotherapy, 2) patient education to improve illness management skills, and 3) easy access to a single primary mental health provider (a BDP nurse) who works with a psychiatrist to implement treatment. Outcomes of BDP include high patient retention rates (over 90%), increased doses of efficacious mood medications without increased side effects, increased usage of outpatient mental health services accompanied by decreased use of emergency services, and significant declines in hospital stays and direct treatment costs for patients with high use at baseline. The patient education program showed a preliminary beneficial impact on patients’ ability to manage their illness. Overall, the study suggests that such a collaborative model for the management of a chronic mental illness shows generalizability to multiple medical practice sites, helping to bridge the efficacy-effectiveness gap. The study supports the development of collaborative models, especially for patients who are high users of medical care. This has implications for the ways in which patients are referred and screened for participation, suggesting that early efforts be targeted at those who present with psychiatric concerns and are current intensive users of medical resources.

Bird, D. C., Lambert, D., Hartley, D., Beeson, P.G., & Coburn, A.F. (1998). Rural models for integrating primary care and mental health services. Administration and Policy in Mental Health, 25 (3), 287-308.

The study identified and described models for integrating primary care and mental health services in rural communities. The focus was on structural factors that shaped service integration, the organizational characteristics of integrated service providers, and the effects of integration. The study was conducted using the responses of 53 rural primary care organizations in 22 states. Data was collected by structured interview. The study

found that various types of integration already existed within rural settings. These types of integration (diversification, linkage, referral, and enhancement) were found to exist in combinations rather than pure types. The structures that were identified to likely be responsive to policy intervention included availability of specialty staff and services, reimbursement, licensure and certification, transportation, telecommunications, and state agency structure. The article provided useful data about how current systems function and thus allow for more informed design of future programs that could integrate smoothly into existing networks.

Bower, P., Gilbody, S., Richards, D., Fletcher, J., & Sutton, A. (2006). Collaborative care for depression in primary care. British Journal of Psychotherapy, 89, 484-493.

The authors sought to identify the “active ingredients” in collaborative care models for depression within a primary care setting. Studies were obtained from multiple databases and coded for the collaborative care content (interventions used) as well as outcome data on change in antidepressant use and change in depressive symptomatology. Using meta-regression, an examination was done of the relationships between intervention content and treatment outcomes. The authors found no significant predictor for the effect of collaborative care on antidepressant use. Predictors for depressive symptom outcomes were identified as systematic identification of patients, the use of case managers who have a mental health background, and regular supervision of the case managers. The article provides potentially valuable data for the development of a collaborative care model by highlighting the need for reliable supervision and the involvement of care managers with professional backgrounds and experience.

Brand, M.K., & Hayes, K.L. (2002). Interdisciplinary health care training in the USA: Lessons learned from a rural training grant program. Journal of Interprofessional Care, 16(2), 103-106.

The article reviews interdisciplinary health care in rural areas within the United States, using input from individuals who have received training for this work. The authors state that physical realities and lower population density lend themselves to a team approach within interdisciplinary care. The role of the provider in these areas is one of “multi-tasker” and engagement in multiple roles. The authors report that interdisciplinary care requires more effort and better communication skills than typical care, and demands that interdisciplinary team members be able to adapt to rural culture. Because of this, they emphasize the importance of integrating trained mental health professionals who are members of the community. Keys to successful collaboration include good partnering skills, strong organization and management involvement, adequate knowledge of the community’s needs, and effective public relations to spread the word to the community. A challenge was finding consistent funding for training. The study provides useful planning and implementation information in regard to developing effective collaborative rural care. It raises the importance of developing and maintaining community connections and primary care partnerships as well as conducting a needs assessment of the targeted rural community. The authors also emphasize the involvement of individuals who originate from the community.

Bush, T., Rutter, C., Simon, G., Von Korff, M., Katon, W., Walker, E., Lin, E., & Ludman, E. (2004). Who benefits from more structured depression treatment? International Journal of Psychiatry in Medicine, 34, 247-258.

This article uses data from two studies that have demonstrated the overall effectiveness of collaborative care interventions for depression in primary care. The authors aim to evaluate factors associated with poor outcomes overall and with greater or lesser effects of treatment. Because the two studies recruited similar patients, delivered similar interventions, and obtained similar outcomes, the authors combined the data and analyzed them on two levels. First, the general prognostic influence of six potential risk factors were evaluated. Second, differential treatment effects (interaction effects) for each of these risk factors were evaluated. The authors found that higher levels of neuroticism and a history of recurrent major depression or dysthymia predicted poor outcomes in general. However, the results indicated that none of the risk factors are strong enough predictors to suggest that treatment is unwarranted. Frequently cited predictors of persistence of depression (age, gender, depression severity, medical and psychiatric comorbidity) were not significantly associated with greater or lesser benefit from collaborative care. The authors conclude that, at the time of diagnosis, it is not possible to predict who is most likely to benefit from collaborative care. Rather, it is important that outcomes of treatment be routinely monitored among depressed patients.

Callahan, C.M., Kroenke, K., Counsell, S.R., Hendrie, H.C., Perkins, A.J., Katon, W., Noel, P.H., Harpole, L., Hunkeler, E.M., & Unutzer, J. (2005). Treatment of depression improves physical functioning in older adults. Journal of the American Geriatrics Society, 53, 367-373.

The authors examined the effect of collaborative care treatment of depression on physical functioning in older adult patients. The study consisted of 18 primary care clinics from eight healthcare organizations. 1801 patients age 60 or older with major depressive disorder were randomly assigned to the Improving Mood: Promoting Access to Collaborative Treatment (IMPACT) intervention or to treatment as usual. Following treatment, measures were taken over 12 months that examined depressive symptoms and components of physical functioning. Intervention patients showed significantly better physical functioning at 1-year than treatment as usual patients. They were also less likely to rate their health as poor or fair. Overall, patients whose depression improved were more likely to experience improvement in physical functioning. The article has strong implications for primary care treatment of depression in the elderly and demonstrates evidence of additional gains for the primary care treatment of depression beyond depressive symptomology. It provides additional support for the argument that depression care has the potential for decreasing overall healthcare costs in older adults.

Chené, R., García, L., Goldstrom, M., Pino, M., Roach, D.P., Thunderchief, W., & Waitzkin, H. (2005). Mental health research in primary care: Mandates from a community advisory board. Annals of Family Medicine, 3, 70-72.

This article describes the opinions of a community advisory board on the training of junior faculty and graduate students for participatory, community-based research on mental health in primary care. Key themes were identified from the transcripts of several community advisory board sessions, affiliated with the University of New Mexico's

effort to improve research training for minority junior faculty and graduate students. The sessions focused on research collaboration with communities regarding the interface of primary care and mental health. The authors identified themes that centered on the importance of considering the prior experiences and practices of the surrounding community in areas where there is a proposed interface between mental health and primary care. These could include traditional healing practices, traumas related to prior attempts at conflict resolution and collaboration between organizations, and previous research that was exploitative in nature. They conclude that such research should actively involve community representation and be sensitive to policy concerns important to the community. This article astutely points out the need for sensitivity to and respect of a community's prior experiences and concerns in the implementation of a project that should ultimately be designed to meet the needs of local consumers.

Coyne, J. C., Thompson, R., Klinkman, M. S., & Nease, D. E. (2002). Emotional disorders in primary care. Journal of Consulting and Clinical Psychology, 70, 798-809.

This article highlighted the high prevalence of and difficulties detecting and treating emotional disorders in primary care. Even when treated with antidepressants under routine care, patients often do not obtain anticipated benefits. However, the cost of stationing mental health professional in primary care is prohibitively expensive and only modestly effective. Screening is an essential first step, but can be hampered by the high number of false positives for depression, as well as the fact that psychological distress in primary care often does not meet diagnostic criteria for specific disorders. This suggests that the DSM may not be the best nosological system for primary care. Additionally, unlike patients seeking treatment in mental health settings, patients identified in primary care may not be motivated for treatment. Based on existing depression research, the dominant "best practice" is to screen, detect, medicate, and observe improvement (typically, there is greater emphasis on medication than psychotherapy), although research indicates that screening and monitoring outcomes do not improve outcome or adequacy of treatment of depression in primary care. Furthermore, cost-effectiveness analyses show that screening is only justified under highly restricted conditions, and improvement rates on average are only 48% (lower than placebo in clinical trials). In terms of physician- and practice-centered strategies, the authors noted several null findings. For practice-level interventions and outcomes monitoring, only small, short term improvements were found, which lessened over time. The authors concluded that current approaches have minimized the role of patients. Patient preferences exert strong control over detection of depression and enrollment in treatment. It will be essential to recognize the central role of the patient and the multiple influences on the behavior and decisions of both patients and providers.

Dickinson, L.M., Rost, K., Nutting, P.A., Elliot, C.A., Keeley, R.D., & Pincus, H. (2005). RCT of a care manager intervention for major depression in primary care: 2-year costs for patients with physical vs. psychological complaints. Annals of Family Medicine, 3(1), 15-22.

The article focuses on the effects of a care manager intervention on outpatient costs when comparing the treatment of patients presenting with physical vs. psychological

symptoms. The RCT involved 12 primary care practices where treatment as usual was compared to more enhanced, ongoing care management for a period of 24 months. Patients were identified through the use of a depression screening questionnaire. In examining the effect of the enhanced treatment, findings show an overall \$980 cost decrease for patients presenting with depressive complaints alone and a \$1,378 cost increase for patients presenting with physical complaints only. In addition, outpatient costs for patients given the enhanced treatment decreased over time, while the costs for those patients receiving usual care increased. The enhanced treatment was also associated with lower emergency department costs. The study indicates the importance of depression screening combined with ongoing intervention for lowering outpatient costs. The authors suggest differential treatment plans for those patients who screen positively for depression and those who screen for depression but also present with physical complaints. Suggestions include cognitive behavioral therapy for somatic complaints.

Dietrich, A.J., Oxman, T.E., Williams, J.W., Kroenke, K., Schulberg, H.C., Bruce, M., & Barry, S.L. (2004). Going to scale: Re-engineering systems for primary care treatment of depression. Annals of Family Medicine, 2(4), 301-304.

The article attempts to assess the feasibility of implementing a chronic care model for depression within a primary care clinic. Five medical groups and health care plans (HCOs) consisting of 180 clinicians in 60 practices were utilized in implementation. Treatment components consisted of collaboration between mental health and primary care professionals on care management, assessment of progress, and practices to provide depression management. Initial recognition, diagnostic evaluation, management, and follow up care was provided by the PCP. Patients receive telephone support calls from a care manager in the weeks following the initial PCP visit. These care managers adjust management and treatment as needed through weekly supervision calls with a psychiatrist. Care managers and the supervising psychiatrist maintain feedback loops to the PCP. The authors found that it is possible to implement the clinical model and alter current practices within diverse practice settings. Despite the fact that it required new care management resources, as well as supportive roles from psychiatrists, the model was supported by the five HCOs. The article suggests the importance of a “turn-key” approach to implementation, where a simple system based on proven methods allows for customization to diverse institutions. It also stresses the importance of obtaining support from individual specialties within the HCOs to facilitate model adoption.

Feldman, M.D., Arean, P.A., Ong, M.K., Lee, D.L., & Feldman, S. (2005). Incentives for primary care providers to participate in a collaborative care program for depression. Psychiatric Services, 56(11), 1344-1346.

The article examines the difficulties surrounding “carve-out,” or subcontracted mental health treatment, within primary care. It examines the incentives for primary care physicians (PCPs) to utilize more collaborative models of referral. The authors review PCP utilization of a collaborative care program for depression and identify which incentives are most influential in supporting such utilization. PCPs were offered the services of depression case managers to aid with psychoeducation and ongoing support of patients, as well as psychiatrist consultation for difficult cases. Despite financial and training incentives, the authors found that the use of restrictive criteria for patient referral was a deterrent to PCP utilization. Incentives that facilitated PCP involvement included

access to depression case managers or psychiatrist consultation when needed. The article emphasizes the importance of understanding the factors that influence PCP utilization of a collaborative model.

Ford, D.E., Pincus, H.A., Unutzer, J., Bauer, M.S., Gonzalez, J.J., & Wells, K.B. (2002). Practice-based interventions for the NIMH affective disorders workshop. Mental Health Services Research, 4(4), 199-204.

The article reviews several studies in which a chronic disease model of depression treatment was implemented in a primary care setting. Challenges of implementation and directions for future research are the primary focus. The authors examined the last twenty years of evolving research in primary care treatment of mental illness. Previous studies were reviewed for effectiveness, cost-effectiveness, and ease of dissemination into diverse settings. The article identified several gaps in knowledge, such as lack of information about treatment across multiple disease conditions, how information technology can be used to improve treatment or cost effectiveness, and how to design practice interventions or implementation to optimize effectiveness or cost-effectiveness. The authors suggest further research into effective methods for educating consumers about depression, as well as an examination of social interventions from other fields such as quality engineering and social marketing. Other areas needing development include outcomes for children with depression and adults with bipolar disorder. The article's utility resides in the identification of areas in need of further research and improved model design.

Fortney, J.C., Pyne, J.M., Edlund, M.J., Robinson, D.E., Mittal, D., & Henderson, K.L. (2005). Design and implementation of the telemedicine-enhanced antidepressant management study. General Hospital Psychiatry, 28, 18-26.

The study was a discussion of an evaluation of a collaborative care model for rural primary care clinics that utilized telemedicine technology in the treatment of depression. The focus was on describing the design of the program evaluation. The study took place in rural Veterans Administration community outpatient clinics. Patients were screened to include those who could be treated at a primary care level. Screening served the purpose of determining whether there was a sufficient amount of depressed rural patients to fill a telemedicine program to the degree necessary for meaningful evaluation. The authors found that despite small rural patient populations, there are enough potentially depressed patients in rural areas to fill a telemedicine program so that it could be properly evaluated. The study's finding that 82% of the sample met criteria for major depressive disorder gives possible evidence that a rural telemedicine program could be supported.

Fox, J.C., Blank, M., Rovnyak, V.G., & Barnett, R.Y. (2001). Barriers to help seeking for mental disorders in a rural impoverished population. Community Mental Health Journal, 37, 421-436.

This study examined the factors that motivate and prevent mental health help seeking in rural, impoverished areas. The authors hypothesized that rural respondents who screened positive for psychological disorders would endorse more barriers to help seeking than those who screened negative, and that a psychoeducational intervention would result in a reduction in the endorsement of such barriers. The authors screened residents in a rural impoverished area and asked them about perceived barriers to their seeking of health and

mental healthcare. Those who screened positive for at least one mental disorder were assigned to either no intervention or an educational intervention. The educational intervention consisted of information about common mental disorders and referral information for mental health providers in their region. Participants were contacted at one and eight months for follow-up. Those who screened positive for the presence of a mental disorder endorsed significantly more barriers than those who screened negative. Subjects who received the educational intervention endorsed barriers at significantly lower rates at follow-up, though few of those who screened positive for mental disorders sought help after the intervention. Of those who did not seek help, the majority cited their reason as: "Felt there was no need." The authors conclude that barriers to mental healthcare seeking are more significant than previously assumed. A targeted and intensive community outreach effort in rural areas may be necessary to persuade those who need mental health services that treatment can be effective and relevant to their needs.

Gallo, J.J., Zubritsky, C., Maxwell, J., Nazar, M., Bogner, H.R., Quijano, L.M., Syropoulos, H.J., Cheal, K.L., Chen, H., Sanchez, H., Dodson, J., & Levkoff, S.E. (2004). Primary care clinicians evaluate integrated and referral models or behavioral health care for older adults: Results from a multisite effectiveness trial (PRISM-E). Annals of Family Medicine, 2(4), 305-310.

This study examined the opinions of clinicians whose patients were treated with integrated rather than enhanced referral care for depression and other conditions. The randomized, multisite trial was conducted in primary care settings around the United States. Questions about preference for integrated or enhanced referral were asked of 127 primary care clinicians. Nearly all clinicians reported that integrated care led to better communication between themselves and mental health professionals. Better coordination of care and lowered stigma for patients were also endorsed. Clinicians saw integrated care as leading to better management of depression, anxiety, and alcohol problems. The study emphasizes the need for focus on the use of an integrated model over an enhanced referral structure. Obtaining the attitudes of the primary care clinicians through survey should also be explored.

Gerdes, J. L., Yuen, E. J., Wood, G. C., & Frey, C. M. (2001). Assessing collaboration with mental health providers: The primary care perspective. Families, Systems, & Health, 19(4), 429-443.

This study examined how to best measure the strength of collaborative relationships between primary care and mental health professionals and service outcomes within integrated health systems. Efforts to create a method for measuring collaborative strengths were reported and the association between organizational and provider variables and collaboration strength was explored. The study participants were selected from three hospitals, 96 primary care clinics, several network primary care sites, and a variety of behavioral healthcare services in both rural and urban communities. Findings from the study indicated that collaborative program development should focus on developing new systemic care patterns that include PCPs, nurses, and mental health practitioners (MHPs). This arises from the finding that site characteristics contribute more to the quality of collaborative relationships than do the frequency of PCP/MHP contact or individual characteristics of either group. Variables that were associated with collaboration strength included having a MHP at the PCP site, MHPs developing collaboration implementation

strategies that are sensitive to provider specialties and cultures, and having both PCP and MHP employed by the same integrated system. Other findings indicated that the PCP/MHP relationship is not hindered or benefited by rurality or distance, but that MHPs within 30 minutes of the PCP are associated with greater collaborative frequency. The findings of the study indicate that the most important components to effective collaboration is having a MHP on-site, being sensitive to PCP specialization, having MHPs and PCPs within the same system, and having the MHP within 30 minutes of the PCP.

Gilbody, S., Bower, P., & Whitty, P. (2006). Costs and consequences of enhanced primary care for depression. British Journal of Psychiatry, 189, 297-308.

This is a systematic review of all full economic evaluations accompanying randomized controlled trials of enhanced primary care for depression. The authors identified 11 complete evaluations. Studies involving only psychotherapy or drug treatments were excluded unless they included one or more of the following: a) clinician education, b) dissemination and implementation of treatment or management guidelines, c) reconfiguration of roles within primary care, d) case management or active follow-up, or e) consultant-liaison or other methods of improving relationships between primary care and specialist services. Two near-universal findings were that interventions involving education alone did not improve outcomes but were associated with increased costs, and interventions based on collaborative care/case management resulted in improved outcomes but were also associated with increased costs. The authors highlighted the lack of a universal measure of cost-effectiveness. One long-term study indicated that increased costs associated with enhanced care in the short-term dissipated over time. This is a significant finding, and as more long-term follow up is conducted we may see the benefits of front-loaded intervention costs offset over a longer period. This article provides useful considerations for the cost-effectiveness of enhanced primary care for depression, and suggests the usefulness of long-term program evaluation.

Graham, M.A. (1996). Telepsychiatry in Appalachia. American Behavioral Scientist, 39, 602-615.

This article describes efforts to expand access to mental healthcare in rural, underserved areas through the introduction of telepsychiatry. Obstacles to dissemination of telepsychiatry efforts in rural settings are described. Telemedicine most often connects academic medical centers with rural community clinics or hospitals in an attempt to disseminate medical resources and specialty expertise into isolated, underserved areas. APPAL-LINK connects two community mental health programs in rural Appalachia with resources at the state psychiatric hospital through videoconferencing, including telepsychiatry aftercare clinics, consultation, joint treatment planning, involuntary commitment hearings, and forensic evaluations. A major goal is to reduce inpatient hospitalizations for those suffering from chronic mental illness. Inpatient hospitalizations have been reduced for participating patients since the introduction of APPAL-LINK and this is attributed to enhanced crisis intervention through the network. Patients are overwhelmingly positive about telepsychiatry and appreciate the continuity of care. Obstacles include the high cost of equipment, though cost analysis should be considered related to the diversion of unnecessary hospitalizations, reduced travel, and more efficient use of limited specialty expertise across networks. Integrative care efforts should consider

the clinical and cost benefits of opportunities for access to scarce psychiatric resources through technology such as teleconferencing, especially for potential high users of medical resources.

Gryma, L., Haverkamp, R., Little, S., & Unutzer, J. (2006). Taking an evidenced-based model of depression care from research to practice: Making lemonade out of depression. General Hospital Psychiatry, 28, 101-107.

The authors presented how an adapted version of the Improving Mood-Promoting Access to Collaborative Treatment (IMPACT) could be implemented into the “real-world” setting of an HMO three years following the completion of an RCT examining the treatment’s effects on depression. Adult patients assigned to a post-study (PS) group were compared to a historical control population of patients involved in the IMPACT intervention previously conducted at the same site. Severity of depression, treatment contacts, use of antidepressants and psychotherapy, and total health care costs were compared. The IMPACT model, which utilizes depression care managers (DCMs), was adapted for PS by adding an optional group depression education class and including a medical assistant to help expand the DCM’s caseload by tracking cases. The RCT and PS groups were equivalent for baseline and 6-month depression scores, as well as the percentage of patients who experienced a 50% improvement in depression. The number of treatment contacts for PS was fewer than the RCT. The authors showed that an adapted version of the DCM-centered IMPACT program could achieve similar results in natural settings, without external funding and a controlled research environment.

Harowski, K., Turner, A.L., LeVine, E., Schank, J.A., & Leichter, J. (2006). From our community to yours: Rural best perspectives on psychology practice, training, and advocacy. Professional Psychology: Research and Practice, 37(2), 158-164.

The article discusses current research on training of individuals for rural psychology practice. The authors emphasize the need for psychologists to move outside the “monoculture” of psychology to better collaborate with other providers. The authors discuss the “de facto” rural mental health system within primary care, identifying difficulties for primary care physicians (PCPs) in obtaining mental health referrals and receiving timely feedback and written consultation from psychologists. The authors also identified a lack of training in medical school for how to make use of psychological consultations and referrals. The article suggests that because PCPs are the current de facto providers of mental health services, it is up to psychologists to adapt to primary care culture. The article provides useful guidelines for how ongoing communication should be structured between mental health professionals and primary care. It also raises the importance of enhancing collaborative care training within medical schools. The focus on primary care culture highlights the importance of assessing “culture” within rural primary care clinics targeted for collaboration.

Hartley, D., Ziller, E., Loux, S., Gale, J., Lambert, D., & Yousefian, A. (2005). *Mental health encounters in Critical Access Hospital emergency rooms: A national survey. (Working Paper #32). Portland, ME: University of Southern Maine, Edmund S. Muskie School of Public Service, Institute for Health Policy, Maine Rural Health Research Center.*

The focus of this report was an examination of the type and frequency of patients presenting with mental health problems in rural Critical Access Hospital (CAH) emergency rooms (ER). Also discussed were case outcomes and resources available to ER staff for contending with such issues. A random sample telephone survey was conducted of emergency department managers in 422 CAHs. 184 of the CAH's completed ER logs documenting all ER visits in two 24-hour periods, cataloging presenting symptoms, treatment, and outcome. 6.5-9.4% of ER visits per week involved a mental health issue. In 42.9% of these communities, there was no mental health service provider locally available. Travel time to services was a mean of 51 minutes and ranged up to 4 hours. Anxiety and mood swings were the most common presenting problems. Suicidal attempts represented 18% of the mental health problems, and 42% of patients left the ER with no plan for their mental health problem. The article provides valuable information about the extent of mental health problems presenting at rural CAHs and issues of access. The article provides information about patient volume and type of treatment needed in rural integrative mental health care. The article also provides data about barriers to access that need to be addressed.

Hedrick, S.C., Chaney, E.F., Felker, B., Chuan-Fen, L., Hasenberg, N., Heagerty, P., Buchanan, J., Bagala, R., Greenberg, D., Paden, G., Fihn, S.D., & Katon, W. (2003). *Effectiveness of collaborative care depression treatment in Veteran's Affairs primary care. Journal of General Internal Medicine, 18(9), 9-16.*

The article compares collaborative care for the treatment of depression with a consult-liaison (CL) model within a suburban Veteran's Affairs primary care clinic. The authors randomly assigned 354 patients who met the criteria for major depression or dysthymia to either a collaborative care or a CL model of treatment. Collaborative care consisted of a mental health team made up of a clinical psychologist, psychiatrist, social workers, and a psychology technician. The team provided a treatment plan to the primary care physician (PCP), conducted telephone support to patients, reviewed treatment results, and suggested treatment modifications. In the CL condition, study clinicians provided the PCP with a diagnosis and facilitated referrals to psychiatry residents within the primary care clinic. Collaborative care produced a significantly greater improvement than CL in depressive symptomatology for the period of baseline to three months. At nine months there was no significant difference between the groups. Collaborative care also showed significantly diminished negative effects of depression upon work, family, and social life. The authors show the effectiveness of a model that does not require an embedded mental health professional. The use of the mental health team appears to be another option when faced with the geographic distances and shortages of mental health professionals that characterize rural areas.

Hegel, M.T., Unützer, J., Tang, L., Areán, P., Katon, W., & Noël, P.H. (2005). *Impact of comorbid panic and posttraumatic stress disorder on outcomes of collaborative care for late-life depression in primary care. American Journal of Geriatric Psychiatry, 13(1), 48-58.*

This study examined data from a randomized controlled trial (IMPACT) of a collaborative care model within primary care for comorbid anxiety and depression in older adults. IMPACT is a stepped-care, collaborative approach in which patients receive depression care management from a nurse or psychologist who works in collaboration with the patient's primary care provider for up to 12 months. 453 depressed subjects were identified as having comorbid panic or PTSD. The control group utilized usual care. When compared to usual care, intervention patients with depression alone and comorbid panic disorder showed significant improvements in depression symptom severity and rate of improvement that occurred early in the treatment and lasted through follow-up. However, those with comorbid PTSD required 12 months of treatment to begin to show effects more significant than usual care. The known benefits of antidepressant treatment for both panic disorder and depression may have played a role, as well as the fact that those patients with panic disorder received more intensive care, perhaps due to the tendency toward interpersonal avoidance and treatment resistance observed in PTSD patients. The study suggests that persistent monitoring and more aggressive treatment is required when implementing this type of collaborative care with PTSD patients, with a continued emphasis on proactive, long-term follow-up. The study suggests a stepped-care model of treatment in which those who do not meet treatment gains after early steps are referred on for more intensive intervention. It is vital to consider the logistics and practical implications of the need for longer-term follow-up and case management for certain patients in the community, such as those with PTSD.

Hoyt, D.R., Conger, R.D., Valde, J.G. (1997). *Psychological distress and help seeking in rural America. American Journal of Community Psychology, 25, 449-470.*

This study examined risks for psychological distress and attitudes toward seeking mental healthcare across a range of rural settings. The authors cite previous research that suggests that local rural economic conditions, and not just individual-level stressors, can have an effect on mental health. The authors used longitudinal data for adults in the Midwest including health and mental health needs and service use. They examined how individual resources, personal economic status, and characteristics of place impacted changes in risk for psychological distress over time. They hypothesized that as small villages and towns have been most economically affected by the farm crisis, residents in these places would show higher levels of psychological distress and more differential effects of personal stressors on distress than those living on farms, rural nonfarms, or in larger rural centers. Less confidentiality was expected to lead to higher stigma, and thus more reluctance, toward the use of mental health services in the least populated areas. The authors found that men living in rural villages and small towns were at greater risk for depressive symptoms than those in other areas. Both men and women in the most rural settings were more likely to demonstrate stigma toward seeking mental healthcare. The authors suggest that changing gender roles, such as previously assumed male rugged independence, may lead to more risk for psychological distress in males in places of economic hardship. The study offers important considerations for how economic

hardship can operate at the community level to influence psychological distress, stigma, and help-seeking behaviors. Economic trends and personal stressors on men versus women may be important to consider in thinking about how to best promote outreach to those at higher risk for psychological disorders.

Johnson, M.E., Brems, C., Warner, T.D., & Roberts, L.W. (2006). Rural-urban health care provider disparities in Alaska and New Mexico. Administration and Policy in Mental Health and Mental Health Services Research, 33, 504-507.

This article identifies disparities in access to basic physical and mental health care between rural and urban areas, with specific emphasis on two large rural states that have not been closely studied in the past, Alaska and New Mexico. The authors hypothesized that rural residents of these areas would have less access than urban residents to all types of physical and mental health care, but especially those requiring practitioners with advanced degrees, such as psychiatrists and psychologists. Overall, residents in rural areas had lower access to providers than in urban areas. The study found that the largest discrepancies between rural and urban areas were indeed for those categories of health care that required the most education and training; i.e. psychiatry and specialized primary care medicine such as OB/GYN. Much less discrepancy was noted for providers with the lowest training requirements. The authors suggest several strategies for reducing such discrepancies in rural areas, such as offering financial and educational incentives for specialized providers, implementation of telemedicine, enhanced supervision and support for those providers with lower training requirements, and targeted recruitment of medical and psychology students.

Katon, W., Russo, J., Sherbourne, C., Stein, M.B., Craske, M., Fan, M., et al. (2006). Incremental cost-effectiveness of a collaborative care intervention for panic disorder. Psychological Medicine, 36, 353-363.

This randomized control trial investigated the cost-effectiveness of a combined cognitive-behavioral (CBT) and pharmacotherapy intervention for panic disorder, in comparison to usual primary-care treatment. Primary-care patients meeting criteria for panic disorder were randomly assigned to either a treatment-as-usual or combined CBT and pharmacotherapy intervention delivered by a mental health therapist within the primary care setting. The study measured total outpatient costs, number of anxiety-free days (AFD), and quality adjusted life years (QALY) as outcome variables. The collaborative intervention was associated with a robust clinical improvement when compared to treatment-as-usual, with moderate increases in cost for the intervention group. The authors cite recommendations from the U.S. Public Health Service Panel on Cost-Effectiveness in Health and Medicine that suggest that a new intervention with a cost-effectiveness ratio of less than \$40,000 be considered a 'reasonable investment.' They go on to suggest that when inpatient and indirect costs are considered as well as outpatient costs, the cost-effectiveness of this collaborative intervention would likely increase. The study suggests that possible increased costs of an integrated mental health program should be considered before implementation (which may be due to salary for the mental health provider, in which case compensation from an outside source could offset this concern).

Katon, W., & Unützer, J. (2006). Pebbles in a pond: NIMH grants stimulate improvements in primary care treatment of depression. General Hospital Psychiatry, 28, 185-188.

In the early 1990s, the National Institutes of Mental Health (NIMH) funded several randomized trials that tested collaborative care models versus usual care for depression in primary care. Many of these trials were successful in demonstrating improvement in quality of care and depression outcomes. This article describes the “ripples in the pond” effect that these initial NIMH grants stimulated in dissemination of evidence-based depression-care models. The authors discussed such “ripples” on several levels. For example, these initial successful trials developed the framework for several large foundations to provide over \$50 million in funding to test adaptations of collaborative care models in other populations and service settings. The substantial number of successful, high-quality treatment trials of collaborative care has led to projects that summarize and articulate the existing literature regarding health care innovations (e.g. meta-analyses). More recently, several private foundations have made substantial commitments to help “translate” the substantial body of research on collaborative depression care from research to practice. The authors suggest three areas for future NIMH research: 1) further adaptation of successful collaborative care models for health care delivery systems and new clinical populations that have not been adequately addressed, 2) effectiveness of collaborative care programs as they are implemented in large health care delivery systems, and 3) dissemination and implementation of evidence-based collaborative care models for depression in diverse health care settings.

Katon, W., Russo, J., Von Korff, M., Lin, E., Simon, G., Bush, T., Ludman, E., & Walker, E. (2002). Long-term effects of a collaborative care intervention in persistently depressed primary care patients. Journal of General Internal Medicine, 17, 741-748.

This article looked at the 28-month effect of a collaborative care intervention for persistently depressed primary care patients. By including only individuals with persistent depression, the authors were able to target patients with the most need for additional treatment. Although all participants were diagnosed with major depression, they were further stratified into two groups: severe or moderate. They were then randomly assigned to receive either the collaborative care intervention or usual care. The collaborative intervention included patient education, at least 2 sessions with a psychiatrist, and brief telephone calls to review progress in between sessions. Approximately two-thirds of patients in the moderate-severity group who received the collaborative intervention showed continued improvement at 28 months. No improvement was seen in the high-severity group, regardless of the type of intervention received. There were no significant differences between the two groups in total ambulatory costs, total health care costs, depression treatment costs, or non-depression related outpatient costs. Higher outpatient depression costs in collaborative care intervention patients were balanced by higher outpatient nondepression costs in usual-care patients. The authors estimated that the cost of instituting and maintaining a tracking system to screen patients for persistent depression 8 weeks after initiation of primary care treatment would be about \$67 per patient. The article provides important information

regarding the potential costs of implementing a tracking system for the effects of primary care treatment for depression.

Katon, W., Von Korff, M., Lin, E., Simon, G., Ludman, E., Bush, T., Walker, E., Ciechanowski, P., & Rutter, C. (2003). Improving primary care treatment of depression among patients with diabetes mellitus: The design of the Pathways study. General Hospital Psychiatry, 25, 158-168.

The article describes the methodology of a collaborative care intervention (Pathways) for improving health outcomes and quality of care among patients with diabetes and depression. Subjects were identified and tracked using the Patient Health Questionnaire (PHQ) and other tools assessing general occupational, physical, and social functioning. Patients were randomly assigned to treatment as usual or a care manager intervention, in which a registered nurse conducted the initial intake, treatment planning, and Problem Solving Therapy (PST) with patients. Patients were given the option of medication or therapy. Nurses received weekly team supervision either in person or via telephone from a psychiatrist, psychologist, and family physician. Patient progress was tracked weekly and adjusted if progress was not observed. The authors were able to successfully implement the Pathways model. Of the 165 patients randomized to the treatment condition, 58% initiated treatment with PST alone or PST combined with medication. This model was conducted in an urban area and presents difficulties to a rural implementation; most notably, the number of available nurses as well as the availability of mental health professionals for supervision presents a limitation. However, such a uniquely reflexive model that changes in response to patient progress is worth considering as a possible asset to a rural model.

Korsen, N., Scott, P., Dietrich, A.J., & Oxman, T. (2003). Implementing an office system to improve primary care management of depression. Psychiatric Quarterly, 74, 45-60.

The article describes the implementation of a multifaceted Three Component Model (TCM) for depression in primary care settings, describing traditionally single-focus models tested in randomized controlled trials as poorly aligned with the needs of real-life practice settings. Patients with major depression were recruited from a suburban and a rural primary care setting. The TCM intervention provided primary care clinicians (PCP) with training and tools for assessment, management, and patient education of depression. TCM also provided nurse care managers, supervised by a psychiatrist, for ongoing patient contact by phone. The TCM model supports enhanced communication between PCPs and mental health providers by providing informal consultation from the participating psychiatrist. About half of the enrolled patients achieved remission of depression by either the 4- or 8-week point, and almost three-quarters had at least a partial alleviation of symptoms. There was a noticeable drop-off in patient participation between the 4- and 8-week points, perhaps due to remission of patient symptoms, difficulties in reaching patients by phone, and lack of motivation due to non-improvement. All staff involved reported that the intervention design was positive and effective. The model's approach is useful in its multifaceted focus on provider training and access to tools, case management techniques, and improved communication between mental health and medical providers.

Kroenke, K., Taylor-Vaisey, A., Dietrich, A.J., & Oxman, T.E. (2000). Interventions to improve provider diagnosis and treatment of mental disorders in primary care: A critical review of the literature. Psychosomatics, 41(1), 39-52.

This article reviews interventions to improve provider identification and management of depression and other mental disorders within primary care settings. The authors analyzed results from 48 controlled studies to see whether such interventions also contributed to improved clinical outcomes for patients. Interventions in the studies were categorized into three groups: 1) predisposing, or simple educational techniques (e.g. lectures and workshops), 2) enabling, or those aimed to improve provider skills at the time of the patient visit (e.g. screening tools), and 3) reinforcing, or providing feedback on provider performance (e.g. videotape review of patient visits). Improvement in diagnosis and treatment was found in a majority of the studies. Improvement in patient clinical outcome was found in less than half of the studies. Other effects included improvements in provider knowledge, attitude, and skills. Lower health care costs, reduced utilization, and improved satisfaction with care were also noted. Studies that employed multiple intervention types showed trends toward greater efficacy than those that employed only one intervention type. Predisposing interventions were conducted at a more intensive level than simple lectures or other traditional medical trainings (e.g. 8-30 hours of interview training or videotape review), and this may be an important aspect of the success of many of the interventions reviewed. The review concludes that provider interventions can improve the diagnosis and treatment of mental disorders in the primary care setting, with some evidence for improvement in patient clinical outcomes. The authors cite the need for reinforcement of provider training interventions in order to maintain benefits over time.

Lang, A.J., Norman, G.J., & Casmar, P.V. (2006). A randomized trial of a brief mental health intervention for primary care patients. Journal of Counseling and Clinical Psychology, 74(6), 1173-1179.

The article describes a randomized trial designed to evaluate a brief psychotherapeutic intervention targeting anxiety and depression within a primary care setting. The study consisted of 62 patients, primarily from urban areas, identified using the Brief Symptom Inventory-18 (BSI-18) and randomly assigned to a treatment as usual (TAU) condition or a 4-session manualized intervention. The manualized intervention utilized cards describing life difficulties from which patients selected areas they wanted to focus on. The intervention was described to patients as “coaching sessions” rather than psychotherapy. Based on the selection of the card, patients were treated with a variety of cognitive-behavioral approaches by participating therapists. Patients who received the manualized intervention exhibited a drop below the BSI-18 clinical cutoff for depression and anxiety. Patients receiving TAU did not drop below the threshold. The reduction of symptoms for the treatment group was sustained for three months after treatment, but some return of symptoms occurred at six months. In order to address the drop-off in treatment gains after six months, the article suggests either spreading out sessions over a longer time period or including more sessions. The authors also suggest the use of core skill training and telephone follow-ups in future implementations. The use of “coaching” terminology presents a technique to overcome stigma related to consumer use of psychotherapy.

Lin, E.H.B., Tang, L., Katon, W., Hegel, M.T., Sullivan, M.D., & Unützer, J. (2006). Arthritis pain and disability: Response to collaborative depression care. General Hospital Psychiatry, 28, 482-486.

This multi-site randomized controlled trial (IMPACT) examined the effects of a collaborative care model for depression on arthritis pain severity and activity interference. Previous studies have shown that collaborative care for depression can decrease the severity of these medical conditions. Participants were identified that had both depression and arthritis and were provided with 12 months of depression treatment via depression care managers. Intervention consisted of antidepressant pharmacotherapy and/or problem-solving treatment in the primary care setting, while control patients received usual care. Arthritis pain and activity interference, depression symptoms, and overall functional impairment were assessed at baseline and 12-months. The study found significant reductions in arthritis pain and activity interference in the intervention group receiving collaborative care, but only for those patients with initially lower levels of pain and functional disability related to arthritis. The authors suggest that depressed patients with initially high levels of medically-related pain may require a combined depression and pain management program, as opposed to the focused depression program described here. This study offers a perspective on the importance of possible differential treatments for comorbid mood disorders and medical conditions that are based on assessments of initial severity of symptoms.

Meresman, J.F., Hunkeler, E.M., Hargreaves, W.A., Kirsch, A.J., Robinson, P., Green, A., Mann, E.Z., Getzell, M., & Feigenbaum, P. (2003). A case report: Implementing a nurse telecare program for treating depression in primary care. Psychiatric Quarterly, 74, 61-73.

This article discusses the implementation and dissemination of a nurse telecare intervention for the treatment of depression in primary care settings that has been demonstrated to significantly improve clinical outcomes. The telecare program consisted of 10 telephone contacts to depressed patients over a four month period, addressing issues related to behavioral activation, supportive counseling for treatment adherence, emotional support and education, and monitoring of response to medication and overall progress. Patients also received medication management from a primary care physician. Telecare nurses received training and ongoing supervision from a psychologist or psychiatrist. The program's success was dependent upon support and involvement from key senior administrators, dedicated time set aside for telecare activities, and nurses' enthusiasm for the program. Small variations in the provision of supervision were necessary to meet each unique site's needs, as was flexibility in the length of the program for patients who responded to treatment at differing rates. The authors cited the program's success in being implemented in a wide variety of settings without major modifications and with minimal resources. In an area of limited resources, such a program may make good use of existing structures without excess cost or disruption to existing primary care settings.

Merwin, E., Snyder, A., & Katz, E. (2006). Differential access to quality rural healthcare. Farm Community Health, 29, 186-194.

This study investigated differences in the availability of healthcare providers, presence of community health centers (CHC) and community mental health centers (CMHC), and community demographics between rural and metropolitan areas across the country. The authors utilized a dataset including information for 3,411 counties across the U.S. The impact of community characteristics such as location within the region, availability of practitioners, and rural classification upon the presence of Medicare-approved CHCs and CMHCs was evaluated. The study found twice as many physicians in metropolitan than in rural areas, a difference that is magnified for specialty areas such as surgery and psychiatry. More isolated rural areas were significantly less likely to have a CHC or a CMHC. Those areas with higher minority populations, higher median age, and more physicians and nurse practitioners were more likely to have a CHC in the county. The authors describe the case of a community in Southwest Virginia, where despite above-threshold ratios of providers to residents, there are substantially higher rates of many chronic diseases and lower health care usage. To meet the specific needs of the area, a 3-day community outreach program was held offering free healthcare in over 6,000 patient encounters. The authors promote continued policy efforts to address current unmet healthcare needs in areas such as this. The article's description of the free, large-scale, community-wide outreach event as a technique to address unmet healthcare needs in the area is particularly interesting and may represent a possible outreach programming effort for rural integrative care.

Mittal, D., Fortney, J.C., Pyne, J.M., Edlund, M.J., & Wetherell, J.L. (2006). Impact of comorbid anxiety disorders on health-related quality of life among patients with major depressive disorder. Psychiatric Services, 57(12), 1731-1737.

This study examined the impact of comorbid anxiety disorders, including posttraumatic stress disorder (PTSD), generalized anxiety disorder, and panic disorder, on health-related quality of life in patients being treated for major depressive disorder in a primary care setting. Health-related quality of life measures took into account physical and mental health symptom severity and psychosocial functioning. Participants included patients from VA community-based outpatient clinics also receiving treatment for depression from primary care providers. Of the participants, 69 percent had a comorbid diagnosis of one or more anxiety disorders. Depressed patients with comorbid diagnoses of PTSD or generalized anxiety disorder showed increased impairment in health-related quality of life. The literature already highlights that such patients show a poor response to depression treatment. The importance of identifying the possible presence of anxiety disorders among those patients presenting with depression, but who do not respond well to depression treatment alone, is stressed. Given the high prevalence of these comorbid disorders in patient populations, collaborative care projects might consider targeted methods for screening for the presence of anxiety disorders in those patients who present with depression to their primary care providers.

Mohr, D.C., Hart, S.L., & Marmar, C. (2006). *Telephone administered cognitive-behavioral therapy for the treatment of depression in a rural primary care clinic. Cognitive Therapy and Research, 30(1), 29-37.*

The study investigated the utility and safety of using telephone-administered cognitive-behavioral therapy (CBT), administered by trained psychologists, for the treatment of depression within a rural primary care setting. The study focused on eight subjects for eight weeks. Depression was measured through the use of the Beck Depression Inventory-II and the Hamilton Rating for Depression. Subjects showed significant improvements in depression on both measures. No adverse incidents, such as suicide, parasuicidal behavior, or utilization of emergency safety measures occurred during the study. Clients who showed the least improvement were those who were severely depressed and those currently taking antidepressant medication. The findings provide limited evidence of what type of patients may benefit most from the intervention, which may influence screening procedures and emphasizes the importance of collaboration within primary care. The study indicates that patients who are severely depressed and those who are receiving pharmaceutical treatment perhaps are not ideal candidates for telephone-administered CBT.

Oxman, T. E., Dietrich, A. J., & Schulberg, H. C. (2003). *The depression care manager and mental health specialist as collaborators within primary care. The American Journal of Geriatric Psychiatry, 11, 507-516.*

This article discusses constraints to the implementation of effective depression treatment by primary care providers. Although PCP's accept the importance of treating depression, time, training, financial, and systems constraints keep them from implementing effective depression treatment. First-generation research demonstrated that collaborative care could be effective but very costly. Second-generation research has used chronic disease management protocols, with help from depression care managers supervised by specialists. This approach has been demonstrably superior to usual care in terms of treatment adherence, outcomes, and patient satisfaction. Some remaining problems include that these projects have not sustained themselves over time and that the effect sizes are generally lower than in efficacy trials. This article highlighted the important roles of the depression care managers (e.g. master's level clinicians) and supervising specialists. The authors suggest that future studies should emphasize the following: 1) stepped-care, 2) care management as part of quality-improvement, 3) combined treatment for other chronic diseases, and 4) documentation of effects on absenteeism and productivity.

Oxman, T.E., Dietrich, A.J., & Schulberg, H.C. (2005). *Evidence-based models of integrated management of depression in primary care. Psychiatric Clinics of North America. 28, 1061-1077.*

The authors present a review of multiple models of collaborative mental health treatment in primary care. The article summarizes previous findings and presents a statement of concerns about such models. The authors examined the findings of four previously tested models of depression management in primary care: PRISM-E, IMPACT, PROSPECT, & RESPECT-D. The authors point to the superiority of such clinical improvements over usual care in regards to treatment adherence and clinical outcomes. They highlight the

importance of colocation of mental health professionals within a primary care clinic to reduce stigma, as well as the effectiveness of collaborative models with older, medically comorbid patients. The authors also stress the use of supervised care management through telephone contact for improving clinical outcomes as an alternative to face-to-face treatment. In addition, the authors address the challenge that third-party payers create for maintaining collaborative models of care and suggest that health professionals lobby for improved reimbursement practices. The article stresses the overall effectiveness of integrated management of depression within primary care. They point to financial challenges as well as the importance of institutional support and structural change to sustain such a model.

Pearson, B., Katz, S.E., Soucie, V., Hunkeler, E., Meresman, J., Rooney, T., & Amick, B.C. (2003). Evidence-based care for depression in Maine: Dissemination of the Kaiser Permanente nurse telecare program. Psychiatric Quarterly, 74(1), 91-102.

The article discusses the program design, implementation, and preliminary results of a nurse case management program that targeted depression in primary care. Thirteen primary care practices and three psychiatrists were recruited for the study. Patients who met the criteria for major depression were selected for the study. Progress was evaluated using the Hamilton Depression Rating Scale (HDRS), the Work Limitations Questionnaire (WLQ), and the SF-12 Mental and Physical Composite Scales. There was no control condition. All patients were required to be prescribed a selective serotonin reuptake inhibitor (SSRI). Treatment, lasting six months, consisted of nurse telephone contact with patients that focused on medication-related issues and offered supportive counseling and behavioral activation. Nurses received twice-monthly telephone supervision from a psychiatrist. Patients showed a significant reduction in depression severity at six months. SF-12 results moved in the direction of higher functioning. Sixty-three percent of the patients experienced at least a 50% reduction in HDRS scores at six months. Scores on the WLQ indicated the potential for increased worker productivity as well as improved functioning at work, home, and during leisure activities. The article presents an intervention that appears applicable to rural settings and a treatment and supervision model that could be conducted with existing technology. Questions about what factors contributed to improvement persist, due to the lack of control group and the use of SSRIs by all subjects.

Petterson, S.M. (2003). Metropolitan-nonmetropolitan differences in amount and type of mental health treatment. Archives of Psychiatric Nursing, 17, 12-19.

This study examined discrepancies among several characteristics of mental health treatment between metropolitan and non-metropolitan areas, including frequency of mental health visits, hospitalization rates, and contact with medical doctors. Data regarding use of health services, medical expenditures, and payer mix was gathered for 24,000 metropolitan residents and 6,600 nonmetropolitan residents from a national health use survey for 1996-1997. The survey excluded children and the elderly. The authors found that despite poorer self-reported mental health among nonmetropolitan residents, this group received significantly less general mental health care than metropolitan residents. This difference was even more significant for specialized care. Nonmetropolitan residents were also more likely to be hospitalized, to primarily see a medical doctor for mental health treatment, and obtain fewer mental health care visits

than metropolitan residents. This study is important in its support of the common belief that despite experiencing more severe mental health problems than urban residents, people living in rural areas are obtaining less frequent and specialized mental health care. This speaks to the importance of imbedding mental health providers within primary care settings, where rural residents are most likely to seek care.

Pincus, H.A., Pechura, C.M., Elinson, L., & Pettit, A.R. (2001). Depression in primary care: Linking clinical and systems strategies. General Hospital Psychiatry, 23, 311-318.

The article aims to identify the barriers to effective implementation of evidence-based chronic care models of depression within a primary care setting and presents a model for systemic change. The authors review current models and identify barriers that are conceptual, patient-based, provider-based, practice-related, health plan-based, and purchaser-related. They discuss how each barrier interferes with the implementation of collaborative models for treating depression within a primary care setting. Solutions to each barrier are presented, and the importance of having interventions aligned at both clinical and system-levels of sustainability is stressed. The authors present a tripartite model to address both clinical and system level challenges. The three components of the model are: 1) incentives, both financial and nonfinancial, 2) value, including the value of treating depression and how can this be achieved and documented, and 3) leadership, which aims to lay a training groundwork for the next generation of primary care physicians in order to advance the treatment of depression as a chronic illness. The article stresses the importance of addressing both clinical and systems challenges to the treatment of depression as a chronic illness. Changes in reimbursement, clinical values, and training are all important to effective treatment. The authors suggest addressing barriers within a framework that seeks to facilitate change in multiple systems.

Pincus, H. A. (2003). The future of behavioral health and primary care: Drowning in the mainstream or left on the bank? Psychosomatics, 44, 1-11.

Despite all the evidence, powerful models, and exhortations by governmental agencies, separation of mind and body has been increasing rather than decreasing. Mental and behavioral conditions are seen as ubiquitous, difficult to define, stigmatized, and the role of primary care is ambiguous. One major problem has to do with defining and diagnosing such issues, as the DSM-IV can be considered inadequate in primary care. There are also barriers for primary care for individuals with severe mental illness. Mental health resources for severe problems and substance abuse have been largely based in under-resourced public settings quite far from medical settings, and providers have been acculturated quite differently. Suggested areas for future research include 1) more targeted and effective psychopharmacological and psychosocial treatments, 2) better diagnostic schemes, 3) improved clinical information systems for effective tracking and decision support, 4) financing and practice arrangements for primary care and behavioral care that are more integrated, and 5) population-based scenarios. Potential risks, dangers, and caveats include 1) further segregation of those with severe mental illness, 2) limited attention of PCPs to behavioral and mental issues (i.e. over-reliance on medication), 3) failure of financing mechanisms, and 4) a return to a narrow definition of medicine, health, and health care “policy reductionism.”

Pollin, I., & DeLeon, P.H. (1996). Integrated health delivery systems: Psychology's potential role. Professional Psychology: Research and Practice, 27 (2), 107-108.

This article discusses lessons learned in implementing a psychosocial service within a comprehensive neurology practice, as well as general issues surrounding psychology's role in integrative medical settings. The authors focused on the psychologist as provider of medical crisis counseling (MCC), the counseling immediately provided following a diagnosis of a serious health problem. The article suggested that psychologists should work within physical healthcare clinics in locations they are visible to both patients and physicians. Benefits to this model of integrative care include support for the whole patient's family through MCC, minimization of "panicky phone calls" to the physician, and improved treatment for depression by the utilization psychological intervention before pharmacological treatment. The article provides helpful suggestions about the experience of one practitioner within a medical practice; most notably, suggestions of close proximity between mental health and medical providers in a medical setting and the role of the psychologist as a consultant prior to initiation of pharmacotherapy.

Price, D. (2006). Translating effective depression care into practice: Making an impact with IMPACT. General Hospital Psychiatry, 28, 92-93.

The author discusses the Improving Mood-Promoting Access to Collaborative Treatment (IMPACT) trial conducted by Grypma (2006) and provides suggestions and observations about the challenge of disseminating such a model. The author identifies effective dissemination of such a model as a capacity for flexibility in implementation details, such as in adaptability and reinvention. The author suggests that further trials should include analyses of patients who choose not to participate in the intervention, inclusion of pharmacy costs, and the examination of how shared-decision making (ie. patients choosing the length of their treatment) may be impacting effectiveness. Overall, the article elaborates on the importance of being able to "tweak" a current model rather than designing a new structure from the bottom up.

Reeves, T., & Stace, J.M. (2005). Improving patient access and choice: Assisted bibliotherapy for mild to moderate stress/anxiety in primary care. Journal of Psychiatric and Mental Health Nursing, 12, 341-346.

The study focused on the use of an assisted self-help treatment package for mild to moderate stress/anxiety. The nine subjects were adults referred by their general practitioner. Assisted bibliotherapy, a brief intervention, consists of an 8-week treatment with 20-minute therapist contact sessions. Materials consisted of pamphlets that contained CBT strategies focusing on self-help and motivation, homework to be completed out of session, and discussion of materials with the therapist. Significant improvement was found at post-treatment and maintained at a three-month follow up. The authors suggest that bibliotherapy could be used as a stepped care approach to treating stress and anxiety in primary care. Bibliotherapy could be utilized as an adjunct intervention for anxiety for patients who require less contact time and fewer resources.

Reynolds, C.F. (2003). Meeting the mental health needs of older adults in primary care: How do we get the job done? Clinical Psychology: Science and Practice, 10(1), 109-111.

The article presents a brief discussion of the Prevention of Suicide in Primary Care Elderly Collaboration Trial (PROSPECT), as well as suggestions for how to sustain and support such programs. The PROSPECT study involved 600 patients from 18 primary care clinics, randomly assigned to usual care or a treatment condition. The intervention consisted of patients meeting with depression case managers biweekly and receiving a selective serotonin reuptake inhibitor (SSRI). Depression care managers were trained in interpersonal therapy and consisted of psychologists, mental health nurses, or psychiatric social workers. Progress was measured through the Hamilton Depression Rating Scale (HRSD-17) and follow up visits were scheduled as needed to prolong recovery. The results of the study show a significant effect of the intervention on rates of major depression. The greatest symptomatic improvement was found in the areas of hopelessness and suicidal ideation. Three-quarters of the patients in one clinic were treated to remission. The author discusses the difficulty of maintaining this type of program without federal research funding. He emphasizes that economic viability of such a model will require effective collaboration between policy makers and scientists.

Rollman, B.L. (2003). Reflections on the 10th anniversary of the AHCPR's guideline for the treatment of depression in primary care. Journal of General Internal Medicine, 18, 492-493.

The article reflects on the ten-year anniversary of the Agency for Health Care Policy and Research (AHCPR) Clinical Practice Guideline. At the time it was published, the AHCPR Guideline attempted to establish a statement of best practices for treating depression within a primary care setting. The author summarizes findings that have pointed to the effectiveness of utilizing non-physician "care managers" who work with the PCP to enhance treatment outcomes. He discusses the current shift towards the development of financially sustainable models of collaborative care. In looking towards the future, the author proposes the development of financial incentives for PCPs and health plans in depression treatment that utilize evidence-based practice. He also calls for more research on the treatment of comorbid depression and physical illnesses such as heart disease, diabetes, and cancer. The author suggests patient self-management techniques that utilize the popularity of the internet, as well as the development of a more comprehensive Electronic Medical Records system that improves collaboration between disciplines and reduces errors. The article provides further summary evidence of the importance of collaborative care, as well as future advancements that could improve treatment outcomes.

Rost, K., Fortney, J., Fischer, E., & Smith, J. (2002). Use, quality, and outcomes of care for mental health: The rural perspective. Medical Care Research and Review, 59, 231-265.

This article identifies research priorities for rural mental healthcare through a review of existing empirical literature on use, quality, and outcomes of rural mental health services. The authors offer definitions for key constructs and examine differences in how these influence mental healthcare for rural and metropolitan residents. The authors used a

conceptual model of determinants of mental health care that they saw as critical to improvement of services. This includes social networks, individual characteristics, health plans, and service systems, which serve to influence an individual's perceived need and access to care. This in turn affects entry into treatment, choice of service setting, and engagement in care. Provider use of evidence-based practice and patient engagement both influence the quality of care. The authors conclude that there is not enough research on differential use, quality, and outcomes of mental healthcare within heterogeneous rural settings, which often have a wide range of service delivery systems. Between rural and metropolitan areas, the prevalence of psychiatric disorders is about equal, as are entry into care rates for those with such disorders. However, residents of rural areas with less severe disorders fail to stay engaged in care and thus receive poorer quality of care than metropolitan residents. Rural health service systems lack specialty providers and health plans in these areas do not manage care as heavily as in urban areas. The authors offer numerous questions for suggested further research in determining more specific rural-urban differences in care, intra-rural differences, and steps toward improving service delivery and patient engagement in all areas. The article offers several useful definitions of common constructs in the rural healthcare research agenda, many of which may be useful in designing a service delivery system that helps patients with more severe psychiatric disorders to stay engaged in care.

Roy-Byrne, P.P. (2005). Social anxiety in primary care: Hidden in plain view? General Hospital Psychiatry, 27, 155-157.

The author discussed social anxiety disorder (SAD) and the challenges in identification and treatment of SAD in primary care. Patients with SAD present in primary care at lower frequency than in the community. Screening and outreach are emphasized as potentially beneficial because SAD patients are less likely to seek treatment, and when they do, are often presenting with physical symptoms. The author suggests that treatment should consist of either medication or CBT, citing research that shows that both are comparable and additional benefits of combining these methods did not exceed the extra costs. Also suggested was the use of interventions that target multiple comorbid anxious and depressive disorders. Supportive evidence is cited that indicates single-disorder targeted interventions are less efficient. Integrative care efforts should consider the inclusion of outreach or screening measures to identify and promote access for those suffering from SAD. Interventions that have been found to be effective on multiple conditions would be an economic and efficient solution to resource limitations.

Sawyer, D., Gale, J., & Lambert, D. (2006). Rural and frontier mental and behavioral health care: Barriers, effective policy strategies, best practices. National Association for Rural Mental Health. Obtained from <http://www.narmh.org/pages/Rural%20and%20Frontier.pdf>

This report addresses mental and behavioral health access and delivery issues in rural areas, citing the need for more specific programs and policies that do more than simply replicate those applied to metropolitan areas. The report is a summary of themes from unstructured interviews with over 30 people involved in mental and behavioral health in rural areas and surveys of over 200 National Association for Rural Mental Health members. Topics covered include barriers to service delivery, model programs, policy strategies, the role of telehealth, and potential roles for state and local health

organizations. Major themes from the report include: 1) barriers to rural mental health include lack of availability, low accessibility, stigma, and insufficient financial resources and public funding; 2) model programs make the best use of the limited resources that are available in rural areas and evidence-based “best practices” should be identified and funded for dissemination to other areas; 3) policies for rural areas need to be targeted to the unique needs and realities of rural life, funding should be passed directly to community organizations, providers need to be able to work flexibly with both licensed and case management staff within diverse modes of service delivery, and services should include in-home, in-school, and other non-hospital settings; 4) telehealth should be better utilized as an asset in expanding consultation, long-distance treatment, and education; 5) State Offices of Rural Health should act as liaisons for primary care and mental health systems in order to create collaborative networks that expand access to care and improve service delivery in rural areas. Important major themes in the report include the recommendations to be highly sensitive to and aware of a rural community’s unique needs, and the need for incorporation of already existing best practices gleaned from other rural models of care.

Schoenbaum, M., Unützer, J., McCaffrey, D., Duan, N., Sherbourne, C., & Wells, K. B. (2002). The effects of primary care depression treatment on patients’ clinical status and employment. Health Services Research, 37, 1145-1158.

This study examined the effects of evidence-based depression treatment, delivered under naturalistic primary care practice conditions, on health and employment outcomes at six months. The researchers performed a randomized controlled trial involving 938 adults diagnosed with depression in 46 primary care clinics in 5 states. They were divided into three groups: two received quality improvement (QI) interventions: either medication follow-up (through telephone calls or contact visits) by local practice nurses, or CBT provided at a reduced rate by local therapists. The control group participants received usual care and were mailed printed depression treatment guidelines. At six months, both groups receiving QI interventions showed similar improvements in symptoms as well as employment versus usual care, such as lower rates of depressive disorder (24% vs. 72%) and higher rates of employment (72% vs. 53%). The authors estimated that the two quality improvement interventions cost about \$1,500 per more patient than usual care. The article confirms that interventions other than usual care improve depression outcomes in primary care, identifies costs of collaborative care, and highlights the importance of sustainability strategies given the increased costs associated with quality improvement.

Sears, S.F., Danda, C.E., & Evans, G.D. (1999). PRIME-MD and rural primary care: Detecting depression in a low-income rural population. Professional Psychology: Research and Practice, 30(4), 357-360.

The study examined the use of an established primary care screening tool (PRIME-MD) by nurses to detect depression. The screening tool had previously been successfully assessed in use with physicians. The study was completed in public health centers within rural communities in northern Florida. The total sample was 166 individuals. Replicating past research, the measure was found to be useful in identifying depression. The tool was also found to be easy to administer and aided in referrals to mental health clinicians. Patients also reported being comfortable with the measure and felt it was helpful. The use

of such as measure could potentially increase collaboration between primary care and mental health. The study raises the importance of potentially using screening procedures within a primary care clinic as a method for increasing collaboration between providers.

Sherbourne, C.D., Wells, K.B., Duan, N., Miranda, J., Unutzer, J., Jaycox, L., Schoenbaum, M., Meredith, L.S., & Rubenstein, L.V. (2001). Long-term effectiveness of disseminating quality improvement for depression in primary care. Archives of General Psychiatry. 58, 696-703.

The article examines the effectiveness of short-term quality improvement interventions (QI) for depression within a primary care practice. Interventions were targeted to increase health-related quality of life (HRQOL) and clinical outcome during a two year period when compared to treatment as usual (UC). The authors utilized a sample of 1299 patients from 46 primary care practices within 6 managed care organizations. Patients were identified as having current depressive symptoms and then were randomly assigned to UC, or one of two (QI) programs. The QI programs consisted of a nurse specialist, primary care provider, or mental health professional that made the initial patient education, assessment, and treatment plan. Then patients were either assigned medication (QI-Meds), contacted each month for 6 to 12 months, or assigned to cognitive behavioral therapy for 12-16 sessions (QI-Therapy). The study found that QI-Therapy exhibited long-duration of effectiveness for both clinical outcomes and HRQOL measures when compared to QI-Meds and UC. The study findings suggest that increasing access to short-term psychotherapy for primary care patients with depression may result in more prolonged, health-related benefits than does increasing medication alone.

Slack, M.K., Cummings, D.M., Borrego, M.E., Fuller, K., & Cook, S. (2002). Strategies used by interdisciplinary rural health training programs to assure community responsiveness and recruit practitioners. Journal of Interprofessional Care, 16, 129-138.

The article describes interdisciplinary training grant programs designed to promote recruitment of health care professionals and support local health needs in underserved, rural communities. The programs' focus was providing training experiences in rural health care as a primary mechanism for improving care. Primarily conducted in academic settings with student trainees, these programs offer support to rural communities using three main strategies, including clinical services and/or case management, collaborative research, and community-level health interventions. Each program is responsive to the specific needs of the local community through the use of assessments conducted with community residents, problem-based learning case conferences designed to be representative of concerns in the community, home visits, and the development of task forces and community coalitions. Enhanced practitioner recruitment in these rural areas is supported through educational training opportunities. Some students are also able to receive financial reward through participation in tuition repayment programs. Several of the programs offer increased networking and access to state health offices and rural health associations. Practitioner isolation common in rural areas is reduced through the program's efforts to enhance contact between community practitioners and academic institutions. These programs contribute greatly to the overall body of knowledge on health care practice in rural areas through the research and general academic connections involved. The article demonstrates considerable support for inclusion of an ongoing

training component to collaborative care. Continuous connection with an academic institution may offer resources for ongoing evaluation and dissemination of knowledge gained, as well as additional resources for assessment and response to unique community needs.

Simon, G. E., Katon, W. J., VonKorff, M., & Unützer, J. (2001). Cost-effectiveness of a collaborative care program for primary care patients with persistent depression. The American Journal of Psychiatry, 158, 1638-1644.

This article considers the cost-effectiveness of a stepped collaborative care program for depressed primary care patients. Primary care patients diagnosed with depression were randomly assigned to receive either the collaborative care intervention or usual care. The collaborative care intervention consisted of systematic patient education, an initial visit with a consulting psychiatrist (in the primary care clinic), 2-4 months of shared care by the psychiatrist and PCP, and monitoring of follow-up visits and adherence to medication regimen. This intervention resulted in a significant reduction in depressive symptoms, as well as moderate increases in costs (mean cost increase = \$357 per patient). Although the authors did not make recommendations on sustainability given the increased costs, they noted that the existing evidence suggests that the long-term benefits significantly outweigh the initial increased investment. It is necessary that a common metric be developed to measure the long-term costs and benefits associated with different health-care interventions. This would allow for more informed decision-making at a management and policy level and would likely increase investments in newer interventions, such as collaborative care for depression.

Smit, F., Willemsse, G., Koopmanschap, M., Onrust, S., & Beekman, A. (2006). Cost-effectiveness of preventing depression in primary care patients. British Journal of Psychiatry, 88, 330-336.

The focus of the article was an examination of the cost-effectiveness of preventing depressive mental illness in subclinical threshold primary care patients. The authors conducted an economic evaluation of a randomized controlled trial that compared a minimal psychotherapy treatment for depression with treatment as usual. The intervention, utilizing cognitive-behavioral techniques including self-help manuals and telephone check ups, was implemented in 19 general practice clinics in the Netherlands. Costs of health care services and the impact of self-reported production losses from illness were incorporated to gauge cost-effectiveness. The intervention was found to reduce the risk of developing a depressive disorder from 18% to 12%. Further analysis showed that the intervention had a 70% chance of being more cost-effective than treatment as usual. The article stresses the preventative factors of a primary care based model as well as concerns about the financial burden of implementing such a model. Despite differences in the health care systems of the United States and the Netherlands, the authors managed to standardize the concept of cost-effectiveness in a relevant manner.

Sullivan, G., Craske, M.G., Sherbourne, C., Edlund, M.J., Rose, R.D., & Golinelli, D. (2007). *Design of the Coordinated Anxiety Learning and Management (CALM) study: Innovations in collaborative care for anxiety disorders. General Hospital Psychiatry, 29, 379-387.*

The authors present the rationale and proposed procedure for a longitudinal randomized controlled trial designed to investigate the effectiveness of a collaborative care intervention for anxiety disorders. 1040 adult primary care patients will be recruited through physician referral and assigned to the Coordinated Anxiety Learning and Management (CALM) intervention or treatment-as-usual from their primary care clinician. The CALM intervention consists of a stepped-care approach conducted by anxiety clinical specialists (ACS). ACSs are social workers or nurses with experience in a primary care setting and varying experience in mental health treatment. ACSs conduct initial assessment, provide patient education, work in collaboration with prescribing physicians on medication management, help patients make treatment choices and address barriers to treatment, and deliver computer-assisted CBT. There is ongoing communication between the ACSs, other team members (supervising psychiatrists and psychologists), and primary care providers. The authors plan to assess clinical outcomes including anxiety symptoms, functioning, and satisfaction with care. They hypothesize that the CALM intervention patients will demonstrate better outcomes than usual care patients. The article suggests that CALM's user-friendliness in a primary care setting will result in wide dissemination of the model. The described project offers multiple suggestions for the design and possible refinement of a collaborative care model. Specifically, the stepped-care approach may be a helpful framework, as well as considerations for enhancing patient participation in the treatment process.

Thompson, C., Kinmonth, A., Stevens, L., Peveler, R., Stevens, A., Ostler, K., Pickering, R., Baker, N., Henson, A., Preece, J., Cooper, D., & Campbell, M. (2000). *Effects of a clinical-practice guideline and practice-based education on detection and outcome of depression in primary care: Hampshire Depression Project randomized controlled trial. The Lancet, 355, 185-191.*

This study sought to determine if depression education affects physicians' ability to recognize and treat depressive symptoms in primary care settings. 60 PCPs in the United Kingdom participated in the project. Each attended several seminars (totaling 4 hours) on recognizing depressive symptoms and treating depression, using the hospital anxiety and depression (HAD) scale. They also had access to educators for 9 months following the seminars for additional information, help implementing guidelines, etc. Although the educational process was well received by the PCPs who participated, it had no significant impact on the recognition of depression: the sensitivity of PCPs to depressive symptoms was 39% for the intervention group and 36% for the control group. Additionally, patient outcome (measured at 6 weeks and 6 months) did not significantly improve. This study reinforces previous findings that physician education on its own is not sufficient to improve depression care in primary care settings. The authors call for future research on the integration of secondary care in order to improve outcomes.

Trude, S., & Stoddard, J.J. (2003). *Referral gridlock: Primary care physicians and mental health services. Journal of General Internal Medicine, 18, 442-449.*

This article examines the influence of practice setting and environment on primary care physicians' (PCPs) ability to make successful referrals for mental health treatment. The authors suggest that this represents an additional barrier to mental health care, in addition to commonly recognized factors such as stigma and nonparity of health insurance benefits. The study used nationally representative data from a telephone Community Tracking Survey. PCPs were asked how well they were able to obtain referrals for high-quality inpatient and outpatient mental health care. Information related to the type, size, and other characteristics of practice setting was also obtained. 54% of PCPs stated that they had difficulty obtaining psychiatric hospital admissions and 54% reported problems obtaining successful outpatient mental health referrals. PCPs practicing in small group or solo practices reported the most difficulties, as opposed to those working within staff or group model HMOs. Other factors included a lack of time with patients and a paucity of available psychiatrists in the area. This article highlights the benefits of housing both medical and mental health services within the same organization, as often is the case with staff- and group-model HMOs, where PCPs report less barriers to obtaining mental health care for their patients. This may be due to the presence of more accessible mental health staff or established patterns of referral, as opposed to the difficulties often faced by solo practitioners in working with carve-out insurance coverage.

Unützer, J., Tang, L., Oishi, S., Katon, W., Williams, J.W., Hunkeler, E., et al. (2006). *Reducing suicidal ideation in depressed older primary care patients. Journal of the American Geriatric Society, 54, 1550-1556.*

This article describes a randomized controlled trial that evaluated the impact of a collaborative care program for depression on suicidal ideation in older adults, administered within the primary care setting. Study participants were adults over age 60 with either major depression or dysthymia. The intervention group received management for antidepressant medication, prescribed by their primary care physician, from a care manager, as well as 12 sessions of problem solving treatment over one year. The control group received usual care. Depression and suicidal ideation were measured at baseline, 3, 6, 12, 18, and 24 months. The study found that the intervention group demonstrated significantly less suicidal ideation than the control group at 6, 12, and 18, and 24 months. This study speaks to the benefits of including the services of mental health providers for patients receiving psychopharmacological treatment for mood disorders in primary care, providing additional empirical evidence for the integrated health care effort.

Urness, D., Wass, M., Gordon, A., Tian, E., & Bulger, T. (2006). *Client acceptability and quality of life: Telepsychiatry compared to in-person consultation. Journal of Telemedicine and Telecare, 12, 251-254.*

The study evaluated client satisfaction and one-month mental health outcomes for telepsychiatry clients compared with those undergoing face-to-face psychiatric counseling. The subjects came from 11 rural sites across Alberta, Canada. They were administered the SF-12 quality of life survey and the Mental Composite Scales (MCS) assessment tools prior to, immediately after, and one month following either in-person or telepsychiatry consultations. Telepsychiatry was conducted with videoconferencing

technology. Telepsychiatry patients demonstrated significant improvements on SF-12 measures, whereas there was no change for patients in the in-person condition. Telepsychiatry patients reported high levels of satisfaction with their experience, but reported slightly lower levels of feeling supported and encouraged when compared to in-person patients. Factors possibly contributing to telepsychiatry satisfaction rates included decreased travel time, less lost work time, and short waiting periods for appointments. The study highlights both the effectiveness of and client satisfaction with telepsychiatry. The factors involved in high satisfaction apply well to the issues of barriers to utilization within a rural setting.

Verhaak, P.F.M., Schellevis, F.G., Nuijen, J., & Volkers, A.C. (2006). Patients with a psychiatric disorder in general practice: Determinants of general practitioners' psychological diagnosis. General Hospital Psychiatry, 28, 125-132.

The authors focused on which characteristics of patients with psychiatric illness are related to a primary care clinician (PCP) diagnosis of mental illness. The study consisted of a 1-year survey of primary care contacts of patients with a diagnosis of anxiety disorder, affective disorder, or alcohol abuse. 40% of the subjects were seen by their PCP and given a somatic diagnosis. Affective disorders were more frequently diagnosed than anxiety disorders or alcohol abuse. The number of PCP contacts increased the chances of receiving a psychological diagnosis. PCPs are limited in their ability to distinguish patients with a psychological illness from others, unless the patients provide more explicit clues to their condition. The authors suggest the importance of public mental health education and mental health public relations in educating the public about mental illness. The article highlights the importance of raising public awareness of mental health issues and encouraging patients to share their symptoms within primary care, in order to aid PCPs in more precise diagnoses within a collaborative care effort.

Wells, K., Sherbourne, C., Duan, N., Unutzer, J., Miranda, J., Schoenbaum, M., et al. (2005). Quality improvement for depression in primary care: Do patients with subthreshold depression benefit in the long run? The American Journal of Psychiatry, 162, 1149-1157.

The authors investigated the long-term (57 months) effects of quality improvements efforts focused on either evidence-based psychotherapy or medication management for patients with either depressive disorder or subthreshold depression. Forty-six primary care clinics were assigned to provide either usual care or care with a quality improvement (QI) intervention. The QI intervention included provider training and other resources for medication management and evidence-based psychotherapy. Out of all eligible patients, 991 completed the follow-up interview. Relative to usual care, the QI interventions improved depressive symptom outcomes and/or unmet need for both participant groups, and lowered usage of mental and primary health care for those with subthreshold depression. The subthreshold group appeared to benefit more from the psychotherapy enhancements, whereas the depressive disorder group appeared to benefit more from the medication management efforts. This article is unique and particularly instructive in its long-term focus on the effects of collaborative care. Its findings suggest that targeted interventions based on level of depressive symptoms may result in increased long-term benefits.

Wilk, J.E., West, J.C., Narrow, W.E., Rae, D.S., & Regier, D.A. (2005). *Access to psychiatrists in the public sector and in managed health plans. Psychiatric Services, 56, 408-410.*

This article addressed concerns regarding increasing constraints on mental health services and decreasing access to psychiatric services for patients in public and managed health care organizations. The study surveyed a national sample of over 1,200 psychiatrists and collected data including type of patient insurance, geographic variables, and psychiatrist characteristics, such as whether they were willing to take on new patients. The study found that the willingness of psychiatrists to take on new patients was highly dependent on type of health plan. In general, many less psychiatrists were willing to accept patients with Medicaid (44%) or from private managed care plans (53%) compared to patients using self-pay (77%) or private unmanaged insurance (65%). The authors suggested that administrative duties and lower rates of reimbursement in private and public managed care were primarily responsible for these findings. The article highlights concerns regarding the possibility of continually decreasing access to psychiatric services, especially as 70% of Americans with private insurance are members of managed plans. Trends show that numbers of psychiatric providers are decreasing and that they are spending less time in direct patient care, resulting in possible delays and lower quality of services. Attention to ways to integrate high-level quality of psychiatric care and access to consultative services is especially important, considering the high levels of affective disorders seen in the population that might be considered for psychopharmacological treatment.

Willemsse, G., Smit, F., Cuijpers, P., & Tiemens, B.G. (2004). *Minimal-contact psychotherapy for sub-threshold depression in primary care. British Journal of Psychiatry, 185, 416-421.*

This randomized trial examined the effects of a psychotherapy intervention for sub-threshold depression, a known precursor for major depression, delivered within a primary care setting. Patients were recruited from general medical practice settings and screened for symptoms of sub-threshold depression. Intervention subjects, in addition to regular access to medical care, received a cognitive-behavioral intervention consisting of a self-help manual with assignments, an initial interview with a prevention specialist or local mental health clinician, and six short supportive phone calls throughout the treatment. The control group received usual care from their health service providers. Incidence of DSM-IV depressive disorder, depressive symptoms, and subjective functioning were assessed at 12- and 24-month follow-ups. The study showed a significantly reduced rate of major depression in the intervention group at the 12-month follow-up when compared to usual care. There was a small but significant reduction in depressive symptoms in the intervention group as well. The authors also found while those that completed the treatment found it useful and helpful, a good deal (about 60%) either did not start or discontinued the intervention, citing lack of time, lack of motivation, or spontaneous remission of depressive symptoms. This study is important in its emphasis on minimal-contact interventions for depression in the primary care setting, and offers a brief and relatively non-intrusive design. Such a preventative approach to the development of full-

blown major depression could be useful in offering an efficient model for the delivery of preventative mental health services.

Zatzick, D.F., Roy-Byrne, P., Russo, J.E., Rivara, F.P., Koike, A., Jurkovich, G.J., & Katon, W. (2001). Collaborative interventions for physically injured trauma survivors: A pilot randomized effectiveness trial. General Hospital Psychiatry, 23, 114-123.

This study emphasizes the need for efficacious mental health interventions for physically injured trauma survivors, and the lack of appropriate mental health services for such patients as they transition to outpatient follow-up and rehabilitation. The authors conducted a randomized effectiveness study of a collaborative care intervention for physical trauma victims. Inpatients were given counseling from a trauma specialist who also worked in consultation with primary care and surgical providers and attempted to provide post-discharge coordination of care. At one month, intervention subjects demonstrated significant reductions in posttraumatic stress and depressive symptoms. The program's success was in limiting the initial development of symptoms leading to a PTSD diagnosis and reducing distress in patients with initial high-level symptoms. However, no differences were seen between the trauma group and a control group using usual care at a 4-month follow-up. The authors hypothesize that delivery of the intervention within the hospital setting, and complications inherent in providing case management for uninsured patients or those requiring intensive and complex outpatient and community services post-discharge, made follow-up very difficult. They stress the need for more intensive follow-up care in the community by specialists, possible manualized treatment, and a stepped approach to treatment in which resources are allocated at gradually increasing doses to patients whose symptoms do not remit after initial low-level treatment. The study offers a description of the practical challenges of providing longer-term follow-up in the community outside of the medical setting. Concerns related to whether case management and follow-up are built into mental health providers' role from the start should be considered. The authors stress the need for continuity and coordination of care, as well as the incorporation of patient perspectives into treatment.