

11th Annual HMO Research Network Conference

Abstracts from the HMO Research Network

With this issue we include abstracts from the 2005 11th Annual HMO Research Network Conference, held in Santa Fe, New Mexico, that focused on "Translating Research into Practice."

*April 4-6, 2005 Santa Fe, NM
"Translating Research Into Practice—
Scaling New Heights"*

From Group Health Center for Health Studies, Seattle, WA; University of Washington, Seattle, WA

Effect of Mindfulness-Based Stress Reduction on persons with chronic back pain.

Cherkin D, Sherman K, Erro J, Deyo R.

BACKGROUND: Numerous therapies exist for treating chronic low back pain (CLBP) but few, if any, have been found to be cost-effective. There remains a need to identify treatments whose benefits outweigh their costs. This pilot study evaluated the effect on CLBP of an inexpensive and potentially life-changing training program, Mindfulness-Based Stress Reduction (MBSR).

METHODS: Members of a large health plan with uncomplicated low back pain persisting over three months were invited to participate in a trial comparing MBSR (eight weekly 2.5 hour sessions) with a book on self-management techniques. Forty-six volunteers were randomized to MBSR (n = 22) or the book (n = 24). Outcomes measured before randomization and after 12 and 26 weeks included function (Roland) symptom bothersomeness (0 to 10 scale) and general health status (SF-36). MBSR training participants were also asked about its effect on their thoughts, feelings, reactions, or activities.

RESULTS: Eighty-two percent of participants randomized to MBSR attended at least one class (median seven classes). Adjusting for baseline values, the MBSR group fared better than the book group by 1.9 points on the

Roland scale at 12 weeks ($p > 0.05$), but by only 0.3 points at 26 weeks ($p > 0.05$). Differences in SF-36 and symptom bothersomeness were small. However, at 26 weeks, all 16 respondents in the MBSR group claimed to be practicing MBSR for an average of four days per week and 20 minutes per day and to have experienced lasting benefits, most commonly decreased stress, increased ability to relax, increased mindfulness, and ability to cope.

CONCLUSIONS: Although this pilot study found only limited and temporary benefits of MBSR on conventional CLBP outcomes (function, symptoms), informal qualitative feedback suggests MBSR may have other important benefits (eg, coping, attitude) for persons with CLBP and possibly for other conditions caused or exacerbated by life stress.

From HealthPartners Research Foundation

The boomers are coming: A total cost of care model of the impact of population aging on the cost of chronic conditions in the US.

Garrett N, Martini EM.

BACKGROUND: This study estimates the impact of population aging on medical costs over the next five decades in the US. The focus is on chronic and/or expensive conditions often included in disease management programs: coronary artery disease, congestive heart failure, diabetes, asthma, obstetrics, psychiatry, and chemical dependency. We go beyond previous macro-economic studies by modeling the effects of aging on medical costs at a clinically meaningful level of detail.

METHODS: Our model applies estimated age-, gender-, and condition-specific annualized costs to US population projections in each age and gender group through 2050. This provides an estimate of future health care costs, assuming the age, gender, and disease cost profiles remain the same and holding other factors that could affect costs constant.

The primary data sources are pooled claims and membership for 2002-2003 for HealthPartners. Secondary sources are US annualized medical costs and US Census Bureau demographic projections. Populations used to create age-specific per capita costs include Commercial, Medicaid, and Medicare. We group medical claims, pharmacy claims and demographic information into clinically meaningful Symmetry episode treatment groups (ETGs) representing complete episodes of care. We aggregate selected ETGs into the conditions reported in this study.

RESULTS: We project that from 2000-2050 the aging of the population would result in an 18% increase in overall medical costs over the next five decades, with most of the change taking place from 2000-2030. However, there is a great deal of variation of the impact of population aging on specific chronic diseases. Diseases where the ratio of costs for older vs younger ages is greater, such as CAD, CHF, and diabetes will be affected most by population aging.

CONCLUSIONS: These disease-specific projections can inform health policy and planning as providers of health care, health plans, and disease management vendors anticipate meeting future US health care needs.

From KPNW

Effectiveness and acceptability of complementary and alternative medicine for temporomandibular joint disorder among HMO members.

Vuckovic NH, Gullion CM.

BACKGROUND: We report on a study testing the feasibility, acceptability and effects of CAM vs Usual Care as treatment for temporomandibular joint disorder (TMD), a chronic, frequently intractable pain condition. Although previous studies have indicated the extensive use of CAM by the general public and by HMO members (including KPNW), as well as the

effectiveness of CAM for treating chronic pain, questions remained regarding the willingness of HMO members to be randomized to CAM as opposed to usual dental care for TMD, and about the effectiveness of the modalities and protocols used in this study.

METHODS: Participants were screened via self-report of pain and by a clinical TMD exam. Eligible volunteers were randomized to either acupuncture, acupuncture plus herbs, chiropractic, massage, or usual care. Participants in the CAM arms received ten treatments following protocols developed by CAM practitioners. Usual care participants received standard care that included treatment in TMD clinic and possible referral to classes, physical therapy and/or medications. Usual care was provided in KPNW TMD clinic; CAM treatments occurred in practitioners' offices. Study outcomes of change from baseline in usual and worst pain was measured by self-report questionnaire. Acceptability of treatment was measured by adherence to treatment, self-report, and qualitative interviews.

RESULTS: Of the 216 participants randomized, 17 refused initial treatment. Of the remaining 199 participants, 165 completed the intervention. We used an intent-to-treat analysis using mixed model analysis of variance with restricted maximum likelihood estimation to analyze the effects of treatment. Analysis indicates that CAM treatments reduced usual and worst pain as well as or better than usual care. Most patients indicated they would go back to their study provider or to another CAM provider for TMD treatment in the future.

CONCLUSIONS: The apparent positive effects of CAM for chronic pain and its acceptability and desirability among members suggest that managed care organizations should consider CAM as a viable service option.

From Henry Ford Health Systems
Patient-physician colorectal cancer discussions in primary care.

Lafata JE, Moon C, Divine G, Williams LK

BACKGROUND: Routine screening is known to reduce colorectal cancer (CRC) morbidity and mortality. Yet, many people (including those receiving routine primary care) fail to receive recommended screening. How physicians and

patients discuss CRC screening and how these discussions impact screening use is not known.

METHODS: We mailed surveys to 4966 HMO enrollees aged 50-80 years with a recent visit to a PCP. The survey collected information on the content of CRC screening discussions (including the "5 As": Assess, Advise, Agree, Assist, and Arrange) as well as patient preferences for shared decision making. Survey responses were linked with five-year claims data on prior CRC screening use. We estimate the proportions of primary care patients receiving recommended CRC screening, discussing CRC screening with their physician and, among those discussing CRC with their physician, reporting different elements of discussion content.

RESULTS: Among the 2513 survey respondents (50.6% response rate), 58.7% were female, 68.1% were married, and 34.4% were African American. Fifty-four percent received recommended CRC screening and 79.6% reported discussing CRC screening with their physician. The most frequently discussed screening modality was colonoscopy (70.7%), followed by sigmoidoscopy (41.4%) and fecal occult blood testing (40.6%). Approximately two thirds indicated discussing their interest in screening ("assess"), 36.1% reported being offered a choice among different screening modalities ("advise") and 31.1% were asked about their preferences for different types of tests ("agree"). Over half (55.5%) reported receiving help making an appointment ("assist") and 60.9% indicated receiving information on how to get test results ("arrange"). Three quarters of respondents indicated they were involved in the CRC screening decision-making process as much as they wanted and 13.9% indicated there was information they wanted but not discussed with their physicians.

CONCLUSIONS: The majority of primary care patients report discussing CRC screening with their physicians. Yet, the content of these discussions varies and almost half have not received recommended CRC screening. Given the limited time PCPs and patients have to discuss CRC screening, it is important that discussions be as productive as possible. Whether the use of a shared decision-making process and the "5 As" lead to improved CRC screening adherence remains an important question.

From HealthPartners Research Foundation

Relationship of psychosocial and health factors and continuity of care to ED use among seniors.

Whitebird RR, Gunnarson TM, Flottemesch TJ, Asche SE, Martinson BC, Degelau JJ.

BACKGROUND: This study examines the relationship between Emergency Department (ED) use and health status, psychological, social factors, and continuity of primary care in a senior population of HMO members.

METHODS: An observational study using survey data and two-year prospective administrative data in a sample of 11,338 seniors enrolled in an HMO from 1995 through 1997. The study used multinomial logistic regression analysis to model relationships between biopsychosocial factors, continuity of care and ED utilization. Health status and social support measures were collected by survey. Depression was measured with administrative data using ICD9 codes. Continuity of primary care was calculated based on the number of visits with a single primary care provider for patients with two or more primary care visits.

RESULTS: The mean age of the study population was 73 years of age, 42% were male, 27% reported living alone, 13% had a Charlson score of two or greater, 29% of the population had ED use during the two-year study period. Results showed that advanced age, male gender, Charlson score, poor perceived health, higher medication use, falls within the prior six months, need for assistance with activities of daily living, and use of assistive devices were significantly related to one ED visit. Age > 75, multiple medications, depression, low social contact, living alone, bereavement in the prior six months, and low continuity of primary care were related to multiple ED visits.

CONCLUSION: ED use among seniors is correlated with a complex of physical, health status and psychosocial factors. Psychosocial factors and low continuity of primary care were strongly related to multiple ED visits. Interventions directed to ED use among seniors should include components that address these psychosocial issues and improve continuity in the provision of primary care, in addition to the management of chronic conditions and declining health status. ❖