

37-item tool that assesses the degree to which diabetes influences health-related quality of life. Participants were randomized to receive either the full-length DIS or the CAT first, in the patient's native language. Results showed that the number of items and the amount of time to complete the CAT was reduced to one-sixth the amount of time for the full-length tool in both languages. The CAT scores correlated highly with the DIS, suggesting that the CAT has the potential to provide a more practical replacement for the full-length tool. The CAT demonstrated good internal consistency, construct validity, and discriminant validity in the overall sample, although subgroup analyses suggested that the English-sample data showed higher levels of reliability and validity than the Spanish-speaking sample. Participant evaluations indicated that the Spanish-speaking patients generally preferred the paper survey to the CAT, and were twice as likely to experience difficulties understanding the items.

Razzano, L., Hamilton, M. (2006) **Work status, benefits, and financial resources among people with HIV/AIDS.** *Work: A Journal of Prevention, Assessment, and Rehabilitation*, 27(3),235-245. [NARIC Accession Number: J51887](#). Project Number: H133G010093. Abstract: Study examined gender-related differences in employment status and in the sources and amounts of health benefits and economic resources among people with HIV/AIDS. The findings suggest that women and men with HIV/AIDS encounter different financial concerns related to benefits entitlements, as well as factors related to employment status overall. More men than women reported working for pay. Examination of overall sources of benefits and entitlement revealed that regardless of employment status, significantly more females were receiving Medicaid health coverage than males. Men received substantially more income from Social Security Disability Insurance, even though both men and women had equal access to this benefit. Women were significantly more likely to receive Supplemental Security Insurance and to receive large amounts of it.

Strobel, W., Arthanat, S. (2006) **The industry profile on education technology: Learning disabilities technologies and markets.** [NARIC Accession Number: O17143](#). Project Number: H133E030025. Abstract: Reference document compiles information on the current state of education technology as it relates to technologies for people with learning disabilities. It is designed to provide information for technology development, manufacture, and sale. Sections provide an introduction to learning disability, market information, information on instruction and learning technologies, and a discussion on legislation and funding. The appendix includes listings of manufacturers, organizations, and conferences.

(2005) **Schoolwide PBS: Helping kids achieve.** *Beach Center Newsletter*, 2, 27. [NARIC Accession Number: O15960](#). Project Number: H133B031133. Abstract: Newsletter of the Beach Center on Disability. This issue focuses on schoolwide positive behavior support (PBS). Topics include: (1) the story of Joshua Frames; (2) the connection between schoolwide PBS and student achievement; (3) reauthorization of the Individuals with Disabilities Education Act and PBS; (4) urban applications of schoolwide PBS; and (5) a book review, project news, and resources.

Hagglund, K., Clark, M. (2005) **Access to healthcare services among persons with osteoarthritis and rheumatoid arthritis.** *American Journal of Physical Medicine and Rehabilitation*, 84(9), Pgs.702-711. [NARIC Accession Number: J49440](#). Project Number: H133B980022. Abstract: Survey examined the healthcare access experiences of people with osteoarthritis and those with rheumatoid arthritis. Participants reported not obtaining needed health care services at high rates, including mental health services (42 percent) and rehabilitation therapies (39 percent). The reason cited most often for not obtaining services included lack of service coverage by the health plan and high costs. Individuals with both osteoarthritis and rheumatoid arthritis were less likely to obtain primary care physician services when needed.

O'Brien, D. (2004) **Do you dig gardening?, 3.** [NARIC Accession Number: O15912](#). Project Number: H133B031120. Abstract: Article provides practical advice for people with arthritis who are interested in gardening. Author discusses the use of the right techniques and tools that allow individuals to enjoy working in their garden with less risk of strain or injury.

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NIDRR Grantees on the Cutting Edge

Missouri Arthritis Rehabilitation Research and Training Center (MARRTC), University of Missouri (H133B031120) led by Jerry C. Parker, PhD Theresa San Agustin, MD, Project Officer.

Abstract: The purpose of the MARRTC is to provide leadership at the national level in support of three key objectives: to reduce pain and disability, to improve physical fitness and quality of life, and to promote independent living and community integration for persons with arthritis of all ages in the United States. State-of-the-science rehabilitation research addresses the needs of persons with arthritis in the following areas: (1) home and community-based self-management programs, (2) benefits of exercise and physical fitness, and (3) technologies available to the broad populations of persons with arthritis in the environments where they live, learn, work, and play. The MARRTC conducts training and capacity-building programs for critical stakeholders within the arthritis disability arena, including consumers, family members, service providers, and policy makers. Additionally, the MARRTC provides technical assistance for persons with arthritis and other stakeholders in order to promote utilization of arthritis-related, disability research.

Find out more at: www.marrtc.org

Multiple Sclerosis Rehabilitation Research and Training Center, University of Washington (H133B031129) led by George H. Kraft, MD David W. Keer, Project Officer.

Abstract: This center conducts rehabilitation research that: (1) Develops new interventions and practices in the areas of disease suppression, strength enhancement, preserving employment, depression management, and pain control; (2) collects data from an extensive survey and explores complex interactions among multiple variables, models factors that predict differing levels of participation by people with MS, and proposes points of intervention that modify changes in function; and (3) facilitates enhanced participation through training, technical assistance, and dissemination through professional meetings, publications, and a State-of-the-Science conference. In addition, a web-based knowledgebase provides technical assistance to individuals with MS and healthcare providers with respect to caregiver issues, financial and insurance planning, self-sufficiency and coping, and assistive technology. Find out more at: www.msrrtc.washington.edu

Rehabilitation Research and Training Center on Health and Wellness in Long Term Disability, Oregon Health and Science University (H133B040034) led by Gloria Krahn, PhD, MPH Phillip Beatty, PhD, Project Officer.

Abstract: The vision of the RRTC is to contribute to the reduction of health disparities for person

According to the US Department of Education Office of Civil Rights "Hidden disabilities are physical or mental impairments that are not readily apparent to others." This may include neurological disorders, mental illness, immune disorders, or and chronic conditions. For more information, visit www.ed.gov/about/offices/list/ocr/docs/hq5269.html

Please note: These abstracts have been modified. Full, unedited abstracts, as well as any available REHABDATA citations, are available at naric.com.

Thousands of additional resources on these topics are available from NARIC's resource pages at www.naric.com/public

NIDRR research on hidden disabilities spans several priorities including Employment Outcomes, Independent Living and Community Participation, and Technology for Access and Function.

with disabilities through an integrated program of research, training, technical assistance, and dissemination. The Center has three inter-related strands of work to address its three intended outcomes/goals: (1) identify strategies to overcome barriers that impede access to routine healthcare for individuals with disabilities; (2) identify interventions in areas such as exercise, nutrition, pain management, or complementary and alternative therapies that promote health and wellness and minimize the occurrence of secondary conditions for persons with disabilities; and (3) develop improved status measurement tool(s) to assess health and well-being of individuals with disabilities regardless of functional ability. RRTC projects summarize and validate existing research findings on barriers to health care access as well as rigorously test and compare new strategies to overcoming identified barriers. The RRTC also examines and evaluates the practices of exemplary generic and specialized health promotion programs for people with disabilities in order to create an evidence-based set of evaluation and planning criteria. In addition, the RRTC organizes and uses panels to assess current health status measurement tools and develops or refines measures to more accurately reflect the health and well-being of people living with disabilities.

Find out more at: www.healthwellness.org

Impact of Cooling and Exercise on Fatigue in Individuals with Multiple Sclerosis, State University of New York (SUNY) at Buffalo (H133G050198) led by Nadine M. Fisher, EdD. David W. Keer, Project Officer.

Abstract: The goals of this research study are (1) to assess how work capacity (exercise) and fatigue are affected by different cooling strategies (Phase I), and (2) to determine the effects of a 12-week aerobic exercise program on heat flux and changes in skin and core body temperature (Phase II). In Phase I, 60 subjects with mild to moderate MS-related disability are assessed for physiological changes during four cooling conditions (no cooling, pre-cooling, cooling during exercise, ad libitum cooling). After completion of Phase I, the subjects are randomly assigned to exercise without cooling, exercise with cooling, or control groups for Phase II (a 12-week aerobic cycling exercise program). For Phase II, a baseline maximal graded exercise test to assess cardiovascular function and measures of fatigue and temperature are conducted prior to randomizing the subjects into the three groups.

Find out more at: sphhp.buffalo.edu/rs/rehabphys

Promoting Health, Empowerment, and Community Integration Among People with HIV/AIDS: The Medication Adherence Program Study-II (MAPS-2), University of Illinois at Chicago (H133G060224) led by Lisa A. Razzano, PhD David W. Keer, Project Officer.

Abstract: The Center on Mental Health Services Research and Policy at the University of Illinois at Chicago (UIC) is collaborating with the Chicago Department of Public Health (CDPH) to assist people with HIV/AIDS live healthier, more productive lives. Clients at CDPH clinics are offered the opportunity to participate in an innovative program designed to improve adherence to medication and treatment regimens, promote physical health and wellness, cultivate consumer empowerment, and foster community integration. This program examines the effects of peer-delivered medication support services compared to services delivered by traditional medication specialists among people living with HIV/AIDS. The addition of the peer component builds upon the success of the UIC Medication Adherence Program Study-I (MAPS-1), a three-year, NIDRR-funded investigation of the impact of specialized medication adherence services provided to people living with HIV/AIDS.

Find out more at: www.psych.uic.edu/mhsrp

Effectiveness of a Teleconference Fatigue Management Program for People with Multiple Sclerosis, University of Illinois at Chicago (H133G070006) led by Marcia Finlayson, PhD David W. Keer, Project Officer.



Photo credit: Oliver Ingrouille, UK

People with hidden disabilities may experience debilitating effects from their condition but may not be taken seriously because there are no visible signs of disability.

Where Can I Find More?

A quick keyword search is all you need to connect to a wealth of disability and rehabilitation research. NARIC's databases hold more than 75,000 resources. Visit www.naric.com/research to search for literature, current and past research projects, and organizations and agencies in the US and abroad.



The Cochrane Collaboration has review groups for many "hidden disabilities" including neuromuscular diseases, HIV/AIDS, endocrine and metabolic disorders, cancers, blood disorders, chronic pain, and incontinence, among others. Visit www.thecochranelibrary.org and click By Review Group to browse by topic.

Abstract: This project tests the effectiveness and efficacy of a teleconference energy conservation education program for people with multiple sclerosis (MS). The project is guided by self-efficacy theory and builds on existing pilot work. The program is delivered by teleconference by a licensed occupational therapist. Participants are provided with a telephone and headset, and a program manual. On the designated days, participants call a toll-free phone number and participate in an educational group session facilitated by the therapist. Measures of the primary and secondary outcomes are administered over the telephone by a research assistant before and after the program, at three months, and at six months. By collecting data at these points and having a wait-list control group, the project is able to test whether: (1) individuals in the immediate intervention group achieve better outcomes than individuals in the wait-list control group; (2) the program leads to significant reductions in fatigue impact and fatigue severity, and improved quality of life; and (3) improvements in the outcomes can be maintained over six months. Analyses involve t-tests and mixed effects regression models.

Current Literature - Selections from REHABDATA

Cetin, K., Johnson, K. (2007) **Antidepressant use in multiple sclerosis: Epidemiologic study of a large community sample**. *Multiple Sclerosis*, 13, 1046-1053. [NARIC Accession Number: J54219](#). Project Number: H133B031129.

Abstract: Study examined the prevalence of depression and the frequency of antidepressant use among 542 community-dwelling adults with multiple sclerosis (MS) and used multivariate logistic regression modeling to identify factors significantly associated with antidepressant use. Just over half (51 percent) of the study sample had clinically significant depressive symptoms. Thirty-five percent of the sample reported currently using at least one antidepressant medication. Of those with clinically significant depressive symptoms, 41 percent reported currently taking antidepressants. Gender, marital status, insurance status, fatigue, and use of disease modifying therapies were all significantly associated with antidepressant use. Implications for patients with MS and future research are discussed.

Ehde, D., Osborne, T. (2006) **The scope and nature of pain in persons with multiple sclerosis**. *Multiple Sclerosis*, 12(5), 629-638. [NARIC Accession Number: J53658](#). Project Number: H133B031129.

Abstract: Study examined the scope, nature, and impact of pain on the lives of people with multiple sclerosis (MS). One hundred eighty adults with MS completed a mailed survey that included demographic questions, MS disease measures, and several standardized measures of pain. Sixty-six percent (118 respondents) reported experiencing pain within the 3 months preceding the survey. The most common anatomical sites for pain were the legs, followed by the lower back, the neck, and the shoulders. The highest levels of pain interference were reported for sleep, recreational activities, and work in and outside the home. People with pain were more likely to report greater MS disease severity, poor psychological functioning, and poorer health than those with MS but no pain. Participants with pain were also less likely to be employed.

Schwartz, C., Welch, G. (2006) **Computerized adaptive testing of diabetes impact: A feasibility study of Hispanics and non-Hispanics in an active clinic population**. *Quality of Life Research*, 16. [NARIC Accession Number: J53141](#). Project Number: H133B040032.

Abstract: Study examined the feasibility of a computerized adaptive test (CAT) to measure the impact of diabetes by comparing the performance on the CAT with scores on the full-length Diabetes Impact Survey (DIS) in English-speaking and Spanish-speaking patients with Type II diabetes. The CAT is designed to mimic what an experienced clinician would do to assess a patient. Each test administration is adapted to the unique level of each respondent. The DIS is a