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reSearch

A collection of research reviews on rehabilitation topics from NARIC and other information resources.

Aging with Disabilities

In this edition of *reSearch* we explore the topic of aging with disabilities. Today individuals with disabilities are living far longer than previous generations due to advances in medicine, rehabilitation, technology, and disability policy (i.e. civil rights). According to the CDC Disability and Health Data and Statistics website the prevalence of people with disabilities in the United States in 2008 was 50.6 million or about 22.2 percent of the population. Of those 50.6 million individuals, 15.3 percent were ages 18 through 44, 20.8 percent were ages 45 through 64, and 14.5 percent were 65 or older (2011, retrieved on April 19, 2012 from <http://www.cdc.gov/ncbddd/disabilityandhealth/data.html>). As individuals with disabilities continue to live longer there is an increased likelihood of secondary medical conditions (i.e. respiratory illness, renal failure, accidents, infections, etc.) related to aging and/or to an individual's particular disability. Individuals with disabilities experience a high rate of medical, functional, and psychosocial complications and/or changes about 20-25 years sooner compared to aging individuals without disabilities; specifically, "...as persons with disability reach age 50, many show the kind of functional ages that would not be expected until age 70-75 in people without disabilities" (2001, retrieved on March 28, 2012 from <http://www.jik.com/awdrtcawd.html>). Health, functional, and psychosocial changes not only impact the individual but the family as well. Parents of an aging child with developmental disabilities or severe physical disabilities have additional emotional and financial stress in ensuring that their child is cared for when they are no longer able to do so themselves.

The NIDRR-funded RRTC on Aging with a Disability examines possible causes to why individuals with disabilities experience age-related issues earlier compared to their non-disabled counterparts. Possible hypotheses include: (1) an accelerated biological aging process, (2) wear and tear on the body over time, (3) the era of onset (i.e. rehabilitation and/or technology available at onset), (4) latent illness (i.e. metabolic changes that culminate in a variety of illnesses), and (5) environmental factors (2001,

retrieved on March 28, 2012 from <http://www.jik.com/awdrtcawd.html>).

This edition of *reSearch* provides a "snapshot" of research on aging with disability. This "snapshot" presents research related to aging with specific type of disability (i.e. developmental, genetic conditions, SCI, MS, and various others). The combined search terms for this edition of *reSearch* included: Aging with a disability and disability over lifespan. A listing of over 100 additional descriptor terms between the NARIC, CIRRIE, ERIC, and the PubMed databases can be found at the end of this document.

A search of the REHABDATA database resulted in 50 documents published between 2000 and 2011. The CIRRIE database search resulted in three documents between 2002 and 2009. The ERIC database search resulted in 11 documents between 2008 and 2012. And finally a search of PubMed databases resulted in 36 documents between 2001 and 2012. The complete citations are included in this research brief.

References

(2011). *CDC—Disability and Health, Data and Statistics*. Retrieved from <http://www.cdc.gov/ncbddd/disabilityandhealth/data.html>

Kailes, J.I. (2001). *Aging with a Disability*. Retrieved from <http://www.jik.com/awdrtcawd.html>.

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**NIDRR Funded Projects
Related to Aging with Disabilities**

In addition to document searches, we searched our NIDRR Program Database to locate grantees/projects related to aging with disabilities. The search resulted in six currently funded NIDRR projects and nine projects that have completed their research activities. Project information and their publications are offered as additional resources for our patrons.

Furthering Collaboration Among Disability and Aging Research Networks

Project Number: H133F110019

Phone: 206/543-3602

E-mail: imolton@u.washington.edu

Participation, Subjective Well Being, Health, and Spinal Cord Injury: A 40-Year Longitudinal Study

Project Number: H133G110157

Phone: 843/792-7051

E-mail: swayngim@musc.edu

www.musc.edu/chp/sciorg

Personal Assistance Services (PAS) in the 21st Century

Project Number: H133B080002

Phone: 866/727-9577, 415/502-7190 (V), 415/502-5216 (TTY)

E-mail: melinda.neri@ucsf.edu

www.pascenter.org

Rehabilitation Engineering Research Center for Successful Aging with Disability: Optimizing Participation Through Technology (OPTT-RERC)

Project Number: H133E080024

Phone: 323/442-2903

E-mail: winstein@usc.edu

www.isi.edu/research/lerc

Rehabilitation Research and Training Center on Aging with Developmental Disabilities: Lifespan Health and Function

Project Number: H133B080009

Phone: 800/996-8845 (V), 312/413-1520 (V), 312/413-0453 (TTY)

E-mail: rrtcadd@uic.edu

www.rrtcadd.org

Rehabilitation Research and Training Center on Aging with a Physical Disability: Reducing Secondary Conditions and Enhancing Health and Participation, Including Employment

Project Number: H133B080024

Phone: 888/634-6778

agerrtc.washington.edu

The following projects have completed their research activities:

Adapting into late life with a Chronic Neuromuscular Disability

Project Number: H133F050039

Aging and Adjustment after Spinal Cord Injury: A 20-Year Longitudinal Study

Project Number: H133G20200

Aging after Spinal Cord Injury: Three Decades of Longitudinal Research

Project Number: H133G010009

Aging with Spinal Cord Injury (SCI)

Project Number: H133B70011

Health Promotion for Women Aging with Disability

Project Number: H133G000226

www.bcm.tmc.edu/crowd

Lifetime Outcomes and Needs: Refining the Understanding of Aging with Spinal Cord Injury

Project Number: H133A011108

www.craighospital.org

Persons Aging with Hearing and Vision Loss

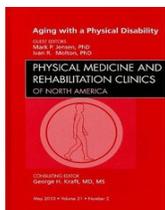
Project Number: H133A020701

Rehabilitation Engineering Research Center on Assistive Technology and Environmental Intervention for Older Persons with Disabilities

Project Number: H133E10008

Rehabilitation Engineering Research Center on Technology for Successful Aging

Project Number: H133E010106



Documents from the Physical Medicine and Rehabilitation Clinics of North America, May 2010

While researching the REHABDATA database we discovered an issue of the *Physical Medicine and Rehabilitation Clinics of North America* devoted to aging with a physical disability. Below is a listing of citations from the May 2010 issue that contained a total of a total of 10 indexed articles, 7 of which were a result of NIDRR-funded research. The *Physical Medicine and Rehabilitation Clinics of North America* is published by Elsevier and is available online at www.pmr.the-clinics.com.

Abresch, R.T., Carter, G.T., Chamberlain, J.R., Han, J.J., Jensen, M.P., Miro, J., & Weiss, M.D. (2010). **Aging with muscular dystrophy: Pathophysiology and clinical management.** *Physical Medicine and Rehabilitation Clinics of North America*, 21(2), 429-450.

NARIC Accession Number: J58940

Project Number: H133B080024, H133B080025

ABSTRACT: Article provides an overview of the pathophysiology of muscular dystrophy (MD) in the context of aging and a discussion of clinical care needs of aging MD patients, with an emphasis on management strategies for the neuromuscular medicine specialist. Major advances in the fields of medical science and physiology, molecular genetics, biomedical engineering, and computer science have provided individuals with MD with more functional equipment, allowing better strategies for improvement of quality of life (QOL). These advances have also allowed a significant number of these patients to live much longer, thus providing new problems and challenges for clinicians. As progress continues to change management, it also changes patients' expectations. Even patients with severe childhood forms of MD are living well into adulthood, going to college, starting careers, possibly even bearing children, and expecting to enjoy a high QOL. A comprehensive medical and rehabilitative approach to management of aging MD patients can often fulfill these expectations and help them enjoy an enhanced QOL.

Baker, L., Flynn, S.M., Lange, B.S., Requejo, P., Rizzo, A.A., Valero-Cuevas, F.J., & Winstein, C. (2010). **The potential of virtual reality and gaming to assist successful aging with disability.** *Physical Medicine and Rehabilitation Clinics of North America*, 21(2), 339-356.

NARIC Accession Number: J58934

Project Number: H133E080024

ABSTRACT: Article discusses an approach for maximizing function and participation for those aging with and into a disability by combining task-specific training with virtual reality (VR) and gaming technologies to enable positive behavioral modifications for independence in the home and community. VR-based games can potentially provide the ability to assess and augment cognitive and motor rehabilitation under a range of stimulus conditions that are not easily controllable and quantifiable in the real world. The authors present the rationale for the clinical application of VR and gaming technology and provide examples of VR game-based rehabilitation for balance impairments, shoulder pain, restoring finger dexterity, and preventing pressure sores. In each application, the authors combine the potential offered by immersive game-based VR technology with evidence-based rehabilitation approaches, such as muscle-specific exercises or sophisticated task-specific training protocols that harness the benefits of meaningful task practice for sustained improvements in sensorimotor functions.

Baylor, C.R., Bourgeois, M.S., & Yorkston, K.M. (2010). **Communication and aging.** *Physical Medicine and Rehabilitation Clinics of North America*, 21(2), 309-319.

NARIC Accession Number: J58932

Project Number: H133B080024, H133B080025

ABSTRACT: Article describes various communication disabilities associated with aging and how these disabilities affect important functions such as access to health care and maintenance of social roles. Preliminary evidence suggests that many of the challenges of aging with a communication disorder are common across different types of communication disorders and different times of onset. Because of the complex and chronic nature of many of the communication disorders experienced by older adults, intervention efforts must include strategies to reduce overall disability

even in the context of persistent communication disorders. These strategies may include working with the person with the disability and with people in that person's environment and broader social institutions to maximize accessibility to a wide range of settings and situations for people with communication disabilities.

Borson, S. (2010). **Cognition, aging, and disabilities: Conceptual issues.** *Physical Medicine and Rehabilitation Clinics of North America*, 21(2), 375-382.

NARIC Accession Number: J58936

Project Number: H133B080024

ABSTRACT: Article describes normal changes in cognition that may occur across the adult life span and considers how specific disabilities may interact with aging processes to increase functional decline in later life. Disabling conditions that directly affect the brain are contrasted with those that do not; specific examples are used to illustrate these points. The author considers that while some cognitive aging processes may impair the capacity of disabled persons to cope with their lives, others may enhance it. The goal of the article is twofold: to create a framework for thinking about how cognitive changes, aging, and disability may interact to help explain individual differences in coping, and to promote the inclusion of cognition in a comprehensive approach to assessment and care.

Brown, P.A., Johnson, K.L., & Knaster, E.S. (2010). **Aging with disability in the workplace.** *Physical Medicine and Rehabilitation Clinics of North America*, 21(2), 267-279.

NARIC Accession Number: J58929

Project Number: H133B080024

ABSTRACT: Article discusses barriers and facilitators to employment for older adults with disabilities. Individuals with disability, such as multiple sclerosis, spinal cord injury, muscular dystrophy, and late effects of polio, often develop a range of skills and strategies that when combined with environmental and social accommodations compensate for barriers they encounter to participation. As their function changes with age, however, these strategies and accommodations may not serve as effectively, especially at work. Rehabilitation professionals can help overcome barriers to workplace. This assistance can

be in the form of counseling about options, making referrals for assistance, and helping to collect data about functional strengths and limitations to inform the accommodation process or to establish the basis for disability subsidy.

Dunn, A.M., Luciano, L., Quevedo, J.P., & Strax, T.E. (2010). **Aging and developmental disability.** *Physical Medicine and Rehabilitation Clinics of North America*, 21(2), 419-427.

NARIC Accession Number: J58939

ABSTRACT: Article discusses aging and functional impairment in people developmental disabilities. A developmental disability is defined as a life-long disability attributable to mental and/or physical impairments manifested at birth or in early childhood. Most people with a developmental disability who reach the geriatric age group age like everybody else. However, because they have preexisting neurologic, functional, and physical damage, these persons show signs of aging in their late 40s and 50s that are not present in the normal population until their 70s or 80s. An individual with damage present at or shortly after birth has a faster aging process than the general population.

Finlayson, M.L., & Peterson, E.W. (2010). **Falls, aging, and disability.** *Physical Medicine and Rehabilitation Clinics of North America*, 21(2), 357-373.

NARIC Accession Number: J58935

ABSTRACT: Article summarizes and then compares fall prevalence rates, fall risk factors, consequences of falls, and current knowledge about fall prevention interventions between community-dwelling older adults and people aging with physical disability. In this latter group, the article focuses on individuals with multiple sclerosis, late effects of polio, muscular dystrophies, and spinal cord injuries.

Finlayson, M.L., & Widerstrom-Noga, E. (2010). **Aging with a disability: Physical impairment, pain, and fatigue.** *Physical Medicine and Rehabilitation Clinics of North America*, 21(2), 321-337.

NARIC Accession Number: J58933

ABSTRACT: Article focuses on the role of pain and fatigue in aging people who have physical impairments. Discussion include: definitions, descriptions, and classifications of pain and fatigue; the implica-

tions of these secondary conditions on the health and functioning of people who experience them; multi-disciplinary assessment and treatment options, and critical gaps in knowledge and directions for research.

Jensen, M.P., & Molton, I.R. (2010). **Aging and disability: Biopsychosocial perspectives.** *Physical Medicine and Rehabilitation Clinics of North America*, 21(2), 253-265.

NARIC Accession Number: J58928

Project Number: H133B080024

ABSTRACT: article provides an overview of the complex interaction of biological, social, and psychological factors for older adults living with long-term and newly-acquired disabilities. The authors first describe the social environment of the older adult, with an emphasis on social support, grief, and bereavement. A discussion follows on the primary theories on aging, with special relevance to aging with disability, including a review of what is known about coping with chronic illness in older individuals. Finally, the authors use these theoretical approaches to confront an important finding in aging and disabilities literatures, which is the reported high quality of life in the context of poor physical function and decline.

Jensen, M.P., & Molton, I.R. (Eds.). (2010). **Aging with a physical disability.** *Physical Medicine and Rehabilitation Clinics of North America*, 21(2), 253-460.

NARIC Accession Number: R09083

Project Number: H133B080024

ABSTRACT: Articles in this journal issue address issues related to aging with a disability. Topics include: biopsychosocial perspectives; aging with disability in the workplace; the relationship of age-related factors to psychological functioning among people with disabilities; physical activity, disability, and quality of life in older adults; communication and aging; physical impairment, pain, and fatigue; the potential of virtual reality and gaming to assist successful aging with a disability; falls, aging, and disability; cognition, aging, and disabilities; and aging with spinal cord injury, multiple sclerosis, developmental disability, and muscular dystrophy. Individual articles may be available for document delivery under accession numbers J58928 through J58940.

McAuley, E., & Motl, R.W. (2010). **Physical activity, disability, and quality of life in older adults.** *Physical Medicine and Rehabilitation Clinics of North America*, 21(2), 299-308.

NARIC Accession Number: J58931

Project Number: H133B080024

Abstract: Article provides an overview of physical activity behavior and its association with functional limitation, disability, and quality of life (QOL) in older adults. The literature reviewed in this article yields three general conclusions: (1) there is an alarming rate of physical inactivity among older adults, particularly those aging with a disability; (2) there is strong evidence for the beneficial effects of physical activity on impairment, function, and health-related QOL among older adults, but there is less-conclusive evidence for positive effects of physical activity on disability and global QOL; and (3) there is emerging support for self-efficacy as a mediator of the association between physical activity and disability, and QOL outcomes in older adults.

Full-text copies of these documents may be available through NARIC's document delivery service.

To order any of the documents listed, please note the NARIC Accession Number (starts with a J, O, or R) and call an information specialist at 800/346-2742.

You may also order online at www.naric.com/services/requestform.cfm. There is a charge of five cents for copying and shipping with a \$5 minimum on all orders. International shipping fees may apply.



Documents from NARIC's REHABDATA search listed are listed below:

2011

Cook, K.F., Molton, I.R., & Jensen, M.P. (2011). **Fatigue and aging with a disability.** *Archives of Physical Medicine and Rehabilitation, 92*(7), 1126-1133.

NARIC Accession Number: J61712

Project Number: H133B080024

ABSTRACT: Study compared self-reported fatigue in four disability populations with age-matched, general population norms. Fatigue and age were assessed in a survey of individuals with spinal cord injury, post-polio syndrome, multiple sclerosis, and muscular dystrophy. The survey responses and published age cohort means for fatigue were used to test the hypothesis that fatigue would be higher in each of four clinical samples than the general population norm. It was also hypothesized that, for disability groups, the mean fatigue reported within age cohorts would be higher than the general population norms for those age ranges derived in the Patient-Reported Outcomes Measurement Information System (PROMIS). Individuals with disabilities reported higher levels of fatigue than the normative PROMIS population. In the normative population, self-reported fatigue was substantially lower in age cohorts from middle age to retirement age. However, individuals with disabilities did not demonstrate this age cohort effect. Results suggest that individuals with disabilities are not only at greater risk to experience fatigue, but this risk, relative to normative values, increases with age. More research is needed to determine the specific negative impact of fatigue symptoms on functioning in individuals with disabilities as they age.

Daniel, M., Gauvin, L., Kestens, Y., Levasseur, M., Payette, H., & Richard, L. (2011). **Associations between perceived proximity to neighborhood resources, disability, and social participation among community-dwelling older adults: Results from the VoisiNuAge study.** *Archives of Physical Medicine and Rehabilitation, 92*(12), 1979-1986.

NARIC Accession Number: J62597

ABSTRACT: Study examined the associations among

perceived proximity to neighborhood resources, disability, and social participation and the potential moderating effect of perceived proximity to neighborhood resources on the association between disability and social participation in community-dwelling older women and men. This cross-sectional study was conducted within the VoisiNuAge research initiative, which merges the NuAge (Nutrition as a Determinant of Successful Aging: The Quebec Longitudinal Study) databank with data from a geographic information system. Data for age, education, depressive symptoms, frequency of participation in community activities, perceived proximity to neighborhood resources (services, amenities), and functional autonomy in daily activities (disability) were collected from 554 older adults (296 women and 258 men) using an interviewer-administered questionnaire. Analysis revealed that greater perceived proximity to resources and lower level of disability were associated with greater social participation for both women and men. The association between disability and social participation did not vary as a function of perceived proximity to neighborhood resources in women (no moderating effect). However, in men, greater perceived proximity to neighborhood resources enhanced social participation, but only in those with minor or no disability.

2010

Behr, R.A., & Sciegaj, M. (2010). **Lessons for the United States from countries adapting to the consequences of aging populations.** *Technology and Disability, 22*(1-2), 83-88.

NARIC Accession Number: J59123

ABSTRACT: Article reports on trends in nine countries that are responding to the consequences of an aging population and presents major lessons for policy makers in the United States.

2009

Adkins, R.H., Kemp, B.J., Mann, W., Mitchell, J.M., & Wilson, D.J. (2009). **Effects of assistive technology on functional decline in people aging with a disability.** *Assistive Technology, 21*(4), 208-217.

NARIC Accession Number: J57829

Project Number: H133B031002, H133B980024

ABSTRACT: Study investigated the impact of an

assistive technology (AT) and home modification intervention on function for individuals who are aging with a disability. A total of 91 participants with polio, rheumatoid arthritis, cerebral palsy, spinal cord injury, stroke, and other impairments were randomly assigned the treatment or control group. The treatment group received an in-home evaluation of their equipment and home modification needs. All recommended AT and home modifications were provided and paid for in full or in part by the study. The control group received the standard community-available health care. Outcome data were collected at 12 and 24 months through in-home interviews using the Older Americans Resources and Services Instrument and the Functional Independence Measure (FIM), and through monthly telephone contact on the hours of in-home care, hospitalizations, and acquisition of AT. A significant "group by time" interaction for the FIM suggested a slower decline in function for the treatment group over two years. Further analyses found that the treatment group was more likely to use equipment to maintain independence vs. personal assistance. The results support the value of AT for adults aging with a disability and suggest that it be provided earlier in the aging process.

Amsters, D.I., Barker, R.N., Haines, T.P., Kendall, M.D., Kuipers, P., & Pershouse, K.J. (2009). **The relationship between quality of life and disability across the lifespan for people with spinal cord injury.** *Spinal Cord*, 47(2), 149-155.

NARIC Accession Number: J57405

ABSTRACT: Study compared quality of life (QOL) for people with spinal cord injury (SCI) and their able-bodied peers and investigated the relationship between QOL and disability (impairments, activity limitations, and participation restrictions) across the lifespan. Data were collected from a random sample of 270 individuals with SCI using a guided telephone interview format. QOL was measured using the World Health Organization Quality of Life Assessment Instrument-Bref, impairment was measured according to the American Spinal Injury Association classification and the Secondary Condition Surveillance Instrument, activity limitations using the motor subscale of the Functional Independence Measure, and participation restrictions using the Community Integration Measure. Lifespan was considered in

terms of age and time since injury. Correlation and regression analyses were used to determine the relationship between QOL and components of disability across the lifespan. Results indicated that QOL was significantly poorer for people with SCI compared to the population norm. It was found to be associated with secondary impairments, activity limitations, and participation restrictions but not with neurological level, age, or time since injury. The single most important predictor of QOL was secondary impairments whereas the second most important predictor was participation.

Blanck, P., & Myhill, W.N. (2009). **Disability and aging: Historical and contemporary challenges.** *Marquette University Law School Elder's Advisor*, 11(1), 47-80.

NARIC Accession Number: J58749

Project Number: H133A060033, H133A060094, H133A080014, H133A090004

ABSTRACT: Article examines the social and political forces underlying contemporary views about the rights of older adults and people with disabilities from the Civil War to the present. Part I outlines the backdrop of early pension systems. Part II discusses the intersection of aging and disability issues. Part III examines the persistence of the medical model and stigma and the role of medical and technological advances into the twenty-first century. Part IV reviews current initiatives and implications for research, policy, and practice to advance equal opportunities, benefits, and quality of life through employment, cutting edge programs for veterans, and technology access for individuals aging with and into disability.

2008

Classen, S., (Ed.). (2008). **Public health, disability, and aging.** *Topics in Geriatric Rehabilitation*, 24(3), 183-278.

NARIC Accession Number: R08946

ABSTRACT: This issue presents articles that examine the implications for older adults and people with disabilities of practicing rehabilitation services from a public health perspective. Topics include: the intersection of public health data and rehabilitation practice; disparities in healthcare access for older adults with disabilities; the functional correlates of

older drivers' on-road driving test errors; process evaluation of the American Automobile Association Roadwise Review CD-ROM; correspondence among older drivers' perceptions, abilities, and behaviors; rapid aiming movements by senior adults; and the relationship between quality of wheelchair and quality of life. Individual articles are available for document delivery under accession numbers J56045 through J56051.

Heller, T. (2008). **Report of the state of the science in aging with developmental disabilities: Charting lifespan trajectories and supportive environments for healthy community living symposium.** *Disability and Health Journal*, 1(3), 127-130.

NARIC Accession Number: J55005

Project Number: H133B031134

ABSTRACT: Article is an introduction to four subsequent papers that present the findings of the 2007 "State of the Science in Aging with Developmental Disabilities: Charting Lifespan Trajectories and Supportive Environments for Healthy Community Living" symposium. The purpose of this symposium was to identify a research agenda to improve the health, psychosocial well-being, and community participation of adults with intellectual and developmental disabilities (IDD) over their life course. The symposium consisted of four main tracks: (1) neurodevelopmental conditions; (2) health care services, health promotion needs, and health literacy; (3) family support and intergenerational caregiving; and (4) environmental barriers and supports to community living. Recommendations offer a research agenda that would provide information on the life span trajectory for individuals with IDD and on methods for developing and accessing effectiveness of practices and policies on individuals with IDD, their families, and their other service providers.

Janicki, M.P., Henderson, C.M., & Rubin, I.L. (2008). **Neurodevelopmental conditions and aging: Report on the Atlanta Study Group charrette on neurodevelopmental conditions and aging.** *Disability and Health Journal*, 1(2), 116-124.

NARIC Accession Number: J55004

Project Number: H133B031134

ABSTRACT: Article provides a summary of the proceedings of the Neurodevelopmental Conditions

Study Group charrette held on May 21-22, 2007, in Atlanta, Georgia. The aim of the charrette was to examine the existing knowledge on aging-related long-term effects and interactions of a number of neurodevelopmental conditions, including autism, cerebral palsy, Down syndrome, fragile X syndrome, Prader-Willi syndrome, spina bifida, and Williams syndrome. Participants noted that although there is some published information regarding lifespan changes with these disorders, especially cerebral palsy and Down syndrome, there is a lack of confirming evidence for most of these conditions. It was concluded that additional evidence-based research and investigatory clinical work are needed to better understand the long-term effects of maturation and aging on adults with these conditions. Primary recommendations included: (1) a call for more work toward the identification and description of the presentations and courses of age-related medical disorders that are common among these conditions; (2) determination of the comparative prevalence and incidence of specific medical conditions between persons with neurodevelopmental disabilities and the general population; (3) use of prevalence and incidence data to better understand risk factors for concomitant conditions; (4) promotion of surveillance, screening, and specific treatment protocols for health provision; (5) institution of a program of translational collaborative research related to older-age associated conditions; and (5) dissemination of information related to aging and health to providers and people affected by these conditions.

Kampfe, C.M., Mamboleo, G.I., Schonbrun, S.L., & Wadsworth, J.S. (2008). **Aging, disability, and employment.** *Work: A Journal of Prevention, Assessment, and Rehabilitation*, 31(3), 337-344.

NARIC Accession Number: J55566

ABSTRACT: Article examines special considerations regarding the employment of older adults. The older population is one of the fastest growing age cohorts in the United States. This group is comprised of a large percentage of people who have disabilities or disabling conditions. Many older people may need to or wish to work beyond the traditional retirement age; however, they may be faced with a variety of barriers that may make this difficult. Practitioners are encouraged to examine their own attitudes as well as

the attitudes of employers regarding aging and older workers, and to identify strategies that can help older consumers to maintain or find new employment when they wish to do so.

Long, T., (Ed.). (2008). **Aging with a developmental disability.** *Topics in Geriatric Rehabilitation*, 24(1), 1-89.

NARIC Accession Number: R08898

ABSTRACT: Articles in this journal issue discuss current rehabilitation practices for adults aging with developmental disabilities (DD). Topics include: an overview of aging with DD; challenges in the recognition and management of age-related conditions in older adults with DD; issues in aging with cerebral palsy; Down syndrome and dementia; assessment, intervention, and prevention of falls in elders with DD; promoting physical activity and exercise in older adults with DD; supporting safe transitions from home to healthcare settings for individuals with intellectual disabilities; and the impact of different care models for treating Parkinson's disease on quality of life. Articles may be available for document delivery under accession numbers J54694 through J54701.

Rayer, S., Smith, E.A., & Smith, S.K. (2008). **Aging and disability: Implications for the housing industry and housing policy in the United States.** *Journal of the American Planning Association*, 74(3), 289-306.

NARIC Accession Number: J60403

Project Number: H133E050004

ABSTRACT: Article examines the impact of population growth and aging on the projected number of households with at least one disabled resident and estimates the probability that a newly built single-family detached unit will have at least one disabled resident during its expected lifetime. The authors calculated disability rates using two alternative measures of disability and constructed projections of the number of households with at least one disabled resident. A technique for estimating the probability that a newly built single-family detached unit will house at least one disabled resident was developed using data on the average lifespan of those units, the average length of residence for households occupying those units, and the projected proportion of households with at least one disabled resident. Under their medium assump-

tions, the authors project that 21 percent of households will have at least one disabled resident in 2050 using the first disability measure (physical limitation) and 7 percent using the second (self-care limitation). They estimate that there is a 60 percent probability that a newly built single-family detached unit will house at least one disabled resident during its expected lifetime using the first measure, and a 25 percent probability using the second measure. When disabled visitors are accounted for, the probabilities rise to 91 percent and 53 percent, respectively. Given the desire of most people to live independently for as long as possible, these numbers reflect a large and growing need for housing units with features that make them accessible to people with disabilities.

Smith, D.L. (2008). **Disparities in healthcare access for older adults with disabilities.** *Topics in Geriatric Rehabilitation*, 24(3), 192-203.

NARIC Accession Number: J56046

ABSTRACT: Study compared healthcare access for older adults with and without disabilities. Data from the National Health Interview Survey from 1997 to 2006 were used to determine the effect of age and disability on healthcare access and examine the impact of policies designed to ensure healthcare access. Results showed that older adults with disabilities exhibit disparity when accessing healthcare services compared with older adults without disabilities. Implications for public healthcare professionals, rehabilitation professionals, and policy makers are discussed.

2006

Helal, A., & Mann, W.C., (Eds.). (2006). **Promoting independence for older persons with disabilities: Selected papers from the 2006 international conference on aging, disability and independence.** *Assistive Technology Research Series, Volume 18.*

NARIC Accession Number: R08809

Project Number: H133E010106

Abstract: This book includes 25 of the papers submitted for the Third International Conference on Aging, Disability, and Independence (ICADI), held in February 2006. The focus of ICADI is on maintaining independence and active participation in family and community activities for older adults through the use of technology. The papers are organized ac-

ording to 5 of the 7 ICADI tracks: (1) smart homes, (2) robotics, (3) telehealth, (4) home modifications and universal design, and (5) assistive devices and workplace adaptations.

2005

(2005). ***Disability and aging: Seeking solutions to improve health, productivity, and community living: A mini-conference of the 2005 White House conference on aging: Final report and recommendations.***

NARIC Accession Number: O16311

Available in full-text at www.naric.com/research/rehab/download.cfm?ID=101059

ABSTRACT: Report summarizes the deliberations of the mini-conference on disability and aging. It presents the high-priority, agreed-upon recommendations across five policy arenas: (1) social engagement and productivity, (2) healthy long-term living, (3) economic security, (4) assistive technology and universal design, and (5) positive messaging. These recommendations will be considered for inclusion in the final White House Conference on Aging Policy Committee recommendations that will be advanced to the president and Congress as developed at the White House Conference on Aging in December 2005.

(2005). **Physical disabilities through the lifespan conference.** *Neurorehabilitation and Neural Repair*, 19(1), 1S-96S.

NARIC Accession Number: R08585

ABSTRACT: Supplement issue is dedicated to a meeting convened to develop a research agenda for addressing the problems that individuals with physical disabilities encounter as they age. Presentations covered the following topics: changing demographics, disability policy, growth and plasticity, reproductive health, children with disabilities, supported living, measurement issues, technology and aging, mental health, consumers in research and policy, rehabilitation, musculoskeletal issues, secondary conditions, minorities and disabilities, emergency preparedness, neurological disorders, sensory and communication disorders, trauma, and cardiopulmonary and renal impairments.

Rimmer, J.H. (2005). **Exercise and physical activity in persons aging with a physical disability.**

Physical Medicine and Rehabilitation Clinics of North America, 16(1), 41-56.

NARIC Accession Number: J48385

Project Number: H133E020715

ABSTRACT: Article examines the relationship between health status and physical activity in older adults with physical disabilities. Author describes a cyclical relationship between disability and physical activity. Physical inactivity over a prolonged period results in the development of secondary conditions and further functional loss, which results in greater effort to participate in physical activity. Regular physical activity has the potential to offset aging- and disability-related losses in function. Guidelines are presented for implementing exercise programs for aging individuals with various types of physical disabilities.

2004

(2004). ***Rehabilitation research and training center on aging with a disability.***

NARIC Accession Number: O16470

Available in full-text at www.naric.com/research/rehab/download.cfm?ID=102247

Project Number: H133B980024

ABSTRACT: Fact sheet provides an overview of the purpose and scope of the Rehabilitation Research and Training Center on Aging with a Disability. The specific research and training projects conducted and the dissemination strategies used are outlined.

Bodenheimer, C.F., Cifu, D.X., Roig, R.L., & Worsowicz, G.M. (2004). **Geriatric rehabilitation. 5. The societal aspects of disability in the older adult.** *Archives of Physical Medicine and Rehabilitation*, 85(7, Suppl 3), S23-S26.

NARIC Accession Number: J50186

Project Number: H133N000015

ABSTRACT: Article discusses the societal aspects of disability in older adults. It focuses ethics related to competency, elder abuse, sexuality, community integration, work, leisure skills, and the issue of driving a motor vehicle. This article is part of the study guide on geriatric rehabilitation in the Self-Directed Physiatric Education program for practitioners and trainees in physical medicine and rehabilitation and geriatric medicine.

Cifu, D.X., Roig, R.L., Stewart, D.G., & Worsowicz, G.M. (2004). **Geriatric rehabilitation. 3. Physical medicine and rehabilitation interventions for common disabling disorders.** *Archives of Physical Medicine and Rehabilitation*, 85(7, Suppl 3), S12-S17.

NARIC Accession Number: J50184

Project Number: H133N000015

ABSTRACT: Article describes physical medicine and rehabilitation (PM&R) interventions for common disorders that cause disability in older adults. Discussion specifically focuses on interventions for arthritis, fractures, cardiovascular disorders, peripheral vascular disease, amputations, pulmonary disorders, cancer, stroke, traumatic brain injury, Parkinson's disease, spinal cord injury, peripheral neuropathies, and diabetic complications. This article is part of the study guide on geriatric rehabilitation in the Self-Directed Physiatric Education program for practitioners and trainees in PM&R and geriatric medicine.

Compton, S.G., & Goodwin, D.L. (2004). **Physical activity experiences of women aging with disabilities.** *Adapted Physical Activity Quarterly*, 21(2), 122-138.

NARIC Accession Number: J47976

Abstract: Six women with physical disabilities, including cerebral palsy, acquired brain injury, and spinal cord injury completed two interviews in which they discussed their experiences of physical activity and aging with a disability. Participants, who ranged in age from 22 to 37 years old, described themselves, what they did during the week that could be considered physical activity, and the meaning that physical activity held for them. Analysis of the data collected revealed three themes: experiencing something normal, loss of physical freedom, and maintaining function through physical activity. Implications of the findings for health promotion are discussed.

Kemp, B.J., & Mosqueda, L., (Eds.). (2004). **Aging with a disability: What the clinician needs to know.**

NARIC Accession Number: R08464

Project Number: H133B70011, H133B980024, H133N000029

ABSTRACT: Text is designed to assist practitioners and students in rehabilitation professions in the care and treatment of people aging with a disability. Book is divided into five parts, addressing: (1) the perspec-

tive of the person with a disability and his or her family; (2) the physiological and functional changes people will face as they grow older, and how these changes may affect caregivers and quality of life; (3) treatment considerations such as maintaining employment and managing pain and fatigue; (4) specific conditions, including spinal cord injury, polio, cerebral palsy, and developmental disabilities; and (5) future directions for research and healthcare policy.

LeRoy, B., & Walsh, P.N. (2004). **Women with disabilities aging well: A global view.**

NARIC Accession Number: R08568

ABSTRACT: Book examines the impact of aging for 167 women with intellectual disabilities in 18 countries. Authors use their research and the personal stories they collected to explore factors contributing to healthy aging and suggest how professionals can help women with disabilities live lives of dignity, respect, and community participation. Chapters discuss how women with disabilities around the world manage the everyday issues they face, including: economic factors such as securing employment, gaining economic control, and financing living arrangements; personal issues such as grooming, mobility, and support systems; health and nutrition; recreation; relationships with family members and friends; overall well-being and quality of life; disability policies and programs that influence all these factors.

Mann, W.C. (2004). **The aging population and its needs.** *Pervasive Computing*, 3(2), 12-14.

NARIC Accession Number: J46897

Project Number: H133E010106

ABSTRACT: Article discusses the health-related assistance technology (AT) and services required by elderly adults in order to maintain independent living. Author presents a model for viewing research and development in technology and aging which comprises five levels of intervention: (1) the cellular level focuses on pathophysiology, (2) the organ level on impairment, (3) the action level on functional limitations, (4) the task-role level on disability, and (5) the social-limitations level on barriers resulting from attitudes and policies. AT for each of these levels is described that addresses the major impairment categories associated with aging: movement, vision, hearing, and cognition.

2003

(2003). *International conference on aging, disability and independence: Conference proceedings.*

NARIC Accession Number: O15925

Available in full-text at www.naric.com/research/rehab/download.cfm?ID=98875

Project Number: H133E010106

ABSTRACT: Presents abstracts and selected papers from the 2003 International Conference on Aging, Disability and Independence (ICADI). The ICADI brings together researchers, practitioners, business leaders and people involved in aging policy to focus on these issues related to maintaining independence for aging adults. The conference included sessions related to research and development, practice, products and services, and policy. Each of these areas is addressed in papers covering the eight ICADI tracks: (1) smart technology, (2) assistive technology, (3) telehealth, (4) home modification and universal design, (5) transportation, (6) injury prevention, (7) consumer perspective, and (8) business perspective.

Finch, J., & Robinson, M. (2003). **Aging and late-onset disability: Addressing workplace accommodation.** *Journal of Rehabilitation*, 69(2), 38-42.

NARIC Accession Number: J45261

ABSTRACT: Article identifies key issues affecting adults with late-onset disabilities and offers suggestions to rehabilitation counselors for facilitating maximum adjustment to employment. Discusses the occurrence of a disability after age 55 and implications regarding psychosocial adjustment, employment, vocational assessments, workplace accommodation and technology, and job placement. Case studies illustrate the challenges of working with older people with late-onset disability.

Hong, B-E., & Ozawa, M.N. (2003). **Disability and economic well-being in old age.** *Journal of Disability Policy Studies*, 13(4), 231-243.

NARIC Accession Number: J45170

ABSTRACT: Study examined the impact of disability status on the income status of retired people at the time of retirement and 10 years later. The major finding was that after controlling for demographic variables, education, occupation, and degree of labor force attachment, there was no difference in the income status

of people with and without disabilities at these two points in time.

Mann, W.C., McCarthy, D.P., Tomita, M., & Wu, S.S. (2003). *The relationship of health status, functional status, and psychosocial status to driving among the elderly with disabilities.* In R. Simpson (Ed.),

Proceedings of the RESNA 26th International Conference: Technology and Disability: Research, Design, Practice and Policy. Arlington, VA: RESNA Press.

NARIC Accession Number: O15612

Project Number: H133E010106

ABSTRACT: Study examined differences in health status, functional status, and psychosocial status among frail older adults who continue to drive, have ceased driving, or have never driven. Authors discuss the application of assistive technologies which may enable older adults to drive safer for a longer period of time. This paper was presented at the 2003 annual conference of RESNA, the Rehabilitation Engineering and Assistive Technology Society of North America and is available on CD-ROM.

Priestley, M. (2003). **Symposium on disability and the life course: Introduction to the symposium.** *Disability Studies Quarterly*, 23(2).

NARIC Accession Number: J45431

ABSTRACT: Introduces a symposium on the life course approach to disability studies and research. Topics covered include: (1) growing up with impairment in post-war Norway; (2) how life course theory and methods can benefit disability studies and vice versa; (3) differing generational impact of traumatic limb loss and adjustment at different life stages; (4) livable communities for people with visual impairment; (5) how special education in Germany and the United States creates disabling barriers in adult life; (6) factors affecting language and identity formation of young people who are deaf or hard of hearing; (7) learning disabilities and social policy in Ontario, Canada; (8) understanding the transition into adulthood for young people with disabilities and their families.

2002

Campbell, M.L., Liebig, P.S., & Sheets, D.J. (2002). **State rehabilitation agencies, aging with disability, and technology: Policy issues and implications.**

Journal of Disability Policy Studies, 12(4), 243-252.
NARIC Accession Number: J44261

ABSTRACT: Reports findings from a national survey of state rehabilitation agencies and technology assistance programs (TAPs) regarding their capacity to provide services to middle age and older adults, staff awareness of the aging of the disability population, and the ability to provide access to assistive technology (AT) and home modifications (HM). Results indicated that agencies for the blind or visually impaired served significantly more middle age and older persons, were more aware of aging, and provided greater access to AT/HM than did rehabilitation agencies. Rehabilitation agencies having TAPs within their agency were more aware of aging, provided more staff training on aging, and collected more data on middle age and older clients than did agencies without TAPs.

Fadem, P., & Minkler, M. (2002). **Successful aging: A disability perspective.** *Journal of Disability Policy Studies*, 12(4), 229-235.

NARIC Accession Number: J44259

ABSTRACT: Authors explore the successful aging paradigm as it relates to the growing number of people who are aging with physical disabilities. Three characteristics of successful aging are discussed: low probability of disease and disease-related disability, high cognitive and physical functioning, and active engagement with life. Article describes how the term 'successful aging' and its specific aspects can further stigmatize people who, as a result of their disabilities, may not meet the criteria for aging well. Implications for research, policy, and practice are discussed.

Hammel, J., Heller, T., & Lai, J-S. (2002). **The impact of assistive technology and environmental interventions on function and living situation status with people who are aging with developmental disabilities.** *Disability and Rehabilitation*, 24(1-3), 93-105.

NARIC Accession Number: J49213

Project Number: H133B980046.

ABSTRACT: Study examined the functional and living situation outcomes of 109 people with developmental disabilities who received assistive technology and environmental interventions (AT-EI) services and products in the course of their transition from an

institution to the community. Functional status was evaluated at baseline and again an average of four years after AT-EI services were first received under two conditions: with AT and without AT. Results indicated that over 70 percent of subjects had better function with AT at both time points. Over time, function did not change when rated without AT; however, when rated with AT, 13.6 percent had better function at follow-up.

Kennedy, J. (2002). **Aging and disability—The advocacy and research agendas: An interview with Judy Heumann.** *Journal of Disability Policy Studies*, 12(4), 280-283.

NARIC Accession Number: J44264

ABSTRACT: Reports on an interview conducted with Judy Heumann, a disability rights leader and former assistant secretary for special education and rehabilitative services in the United States Department of Education. Question and answer format reviews the role of researchers, federal agencies, and disability advocates in responding to the disability needs of the aging population.

Kennedy, J. (2002). **Disability and aging—Beyond the crisis rhetoric: Introduction to the special issue.** *Journal of Disability Policy Studies*, 12(4), 226-228.

NARIC Accession Number: J44258

Abstract: Article provides introduction to the special issue of this journal, which focuses on disability and aging. The articles, which are included in the NARIC collection under accession numbers J44259 through J44264, cover the following topics: successful aging, trends affecting Medicaid policy, state rehabilitation agencies, aging with disability, technology, and housing changes.

Verbrugge, L., & Yang, L. (2002). **Aging with disability and disability with aging.** *Journal of Disability Policy Studies*, 12(4), 253-267.

NARIC Accession Number: J44262

ABSTRACT: National survey data is used to explore ways in which onset and duration of disability vary by age. Compares the sociodemographic, health, disability, and social participation characteristics of persons with childhood-onset disabilities to those of persons with adulthood-onset disabilities. Results

showed that most people with a disability are older and have had recent onsets. People with child-onset disabilities have more disabilities than those with adult-onset disabilities, but their social participation is similar or even higher. Poor overall health is the main factor that reduces social participation for both groups.

2000

(2000). **Aging and developmental disability: Current research, programming, and practice implications.** *Physical and Occupational Therapy in Geriatrics*, 18(1), 1-96

NARIC Accession Number: R08127

ABSTRACT: Journal issue with articles on topics related to physical therapy (PT) and occupational therapy (OT) for older adults with developmental disabilities. Seven of the articles (including three funded by NIDRR) are included separately in the NARIC collection under accession numbers J41688-J41694.

Beange, H., Chicoine, B., Evenhuis, H., Henderson, C.M., & Lennox, N. (2000). **Healthy aging—Adults with intellectual disabilities: Physical health issues.**

NARIC Accession Number: O16422

Available in full-text at www.naric.com/research/rehab/download.cfm?ID=101673

Project Number: H133B980046

ABSTRACT: Report addresses issues related to the physical health of older people with intellectual disabilities. Topics include special issues in health care, healthy aging, and intellectual disability; syndrome-specific conditions; associated developmental disabilities arising from central nervous system compromise; conditions related to lifestyle and environment and health promotion/disease prevention practices; older age-related conditions; barriers to health care services in healthy aging and intellectual disabilities; the role of primary care and developmental physicians; and areas for future research. Recommendations are presented for developing policies and procedures to promote healthy aging among older people with intellectual disabilities.

Breitenbach, N., & Janicki, M.P. (2000). **Aging and intellectual disabilities—Improving longevity and promoting healthy aging: Summative report.**

NARIC Accession Number: O14707

Project Number: H133B980046

ABSTRACT: Summarizes research on the healthy aging of persons with intellectual disabilities. Report provides a synthesis of the findings and conclusions drawn from 4 special reports on (1) physical health, (2) women's health, (3) biobehavioral issues, and (4) aging and social policy. Included in this summary are the main recommendations from the four reports for improving health and longevity among persons with intellectual disabilities. The report was submitted to the World Health Organization by two international organizations concerned with scientific inquiry and advocacy, the International Association for the Scientific Study of Intellectual Disabilities and Inclusion International.

Hammel, J., & Nochajski, S.M. (2000). **Introduction—Aging and Developmental Disability: Current research, programming, and practice implications.** *Physical and Occupational Therapy in Geriatrics*, 18(1), 1-4.

NARIC Accession Number: J41688

Project Number: H133B980046

ABSTRACT: Introduction to an issue of Physical and Occupational Therapy in Geriatrics with articles focused on the aging experiences of older adults with developmental disabilities and interventions targeted at them. Six of these articles are included in the NARIC collection under accession numbers J41689-J41694.



*Documents from the Center
for International
Rehabilitation Research
Information and Exchange
(CIRRIE-3) search at [cirrie.
buffalo.edu](http://cirrie.buffalo.edu) are listed below:*

2009

Kandel, I., Merrick, J., Merrick-Kenig, E., & Morad, M. (2009). **Increased aging in persons with intellectual disability in residential care centers in Israel 1999-2006.** *Medical Science Monitor, 15*(4), PH13-6.

ABSTRACT: BACKGROUND: In the last decade it has been observed worldwide that people with intellectual disability (ID) now experience increased lifespan. The present study was conducted to monitor the trends in aging in persons with ID in residential care centers in Israel.

MATERIAL/METHODS: Since 1998-1999, an annual survey of medical-clinic activity for all residential care centers for people with ID has been conducted and data from these surveys were used to investigate the trends in aging. RESULTS: The residential care center population today comprises about 7,000 persons of all ages. From 1999 to 2006, the population of 40-49 year olds remained stable, but the 50-59 year olds increased by 5.6 percent, while the 60 years and older group increased by 2.9 percent. CONCLUSIONS: Recommendations for service for this population and age group are discussed. Older people with ID have the same needs as other older people do, and they are subject to the same age-related impairments and illnesses. Moreover, because many disabled individuals live together with their families, the burden is double because the family members are also aging and with time, will not be able to continue their care-giving. As with older people in general, older people with intellectual disability also have social needs, housing needs, medical needs, the need for activity or work and special care needs for age-associated conditions, such as Alzheimer's disease and related dementias, increasing fragility, or conditions or diseases compromising independent functioning.

2006

Kandel, I., Merrick, E., & Merrick, J. (2006). **Trends**

in aging. Persons with intellectual disability in residential care centers in Israel. *International Journal on Disability and Human Development, 5*(1), 91-94. No abstract is available.

2004

Lifshitz, H., & Merrick, J. (2004). **Aging among persons with intellectual disability in Israel in relation to type of residence, age, and etiology.** *Research in Developmental Disabilities, 25*(2), 193-205. ABSTRACT: This study was conducted to compare aging phenomena of persons with intellectual and developmental disability (ID) aged 40 years and older living in community residence (N = 65) with those living with their families (N = 43) in Jerusalem, Israel. All 108 persons and care givers were interviewed to ascertain health problems, sensory impairment, activity of daily living (ADL), cognitive skills, and leisure activities. Health problem had already developed by age 40 years. The most frequent were visual (33 percent), hearing impairments (20 percent) and dental problems (30 percent). The community residence group displayed more medical problems, whereas individuals living at home had more dental problems. Health problems in persons with Down syndrome were significantly higher. ADL functioning for all participants was high, but persons with Down syndrome and cerebral palsy had more dependence. A decline in functioning in both residential groups was observed concerning leisure time, but scores for social life leisure activities were better for the community residential group. The data provided in this study can serve as information to develop geriatric services for persons with ID and provide a basis for comparison with peers in the general population in Israel. Dental service to persons with ID living at home should be improved.

2002

Tremblay, M., & Tryssenaar, J. (2002). **Aging with a serious mental disability in rural Northern Ontario: Family members' experiences.** *Psychiatric Rehabilitation Journal, 25*(3), 255-64.

PMID #: 11859998

ABSTRACT: As people with serious mental disabilities grow older, their primary caregivers continue to be family members. This qualitative study explored

the life experiences of people aging with a preexisting serious mental disability living in rural Northern Ontario, from the perspective of family members, and it identified the factors which facilitated or impeded their relative's current and future participation in community life. Results included the challenges of rural life, lack of support by health care providers, rural service needs, caregiver responsibility, the impact of aging on the individual and the family, and future concerns. New models for effective rural programs, services, community education, and effective partnerships with family members must be investigated.



Documents from the Education Resource Information Center (ERIC) search at www.eric.ed.gov are listed below:

2012

Chen, Y-C., Chou, Y-C., Lin, J-D., Lin, L-P., & Wu, C-L. (2012). **Long term trend analysis of geographical disparity in aging and disability: Taiwanese population approach.** *Research in Developmental Disabilities: A Multidisciplinary Journal*, 33(2), 350-356.

ERIC #: EJ955870

ABSTRACT: Purposes of the present paper were to describe the overtime change of disability prevalence among the elderly (65 years and older), and to analyze the geographic disparity of the disability prevalence during the year 2000-2010 in Taiwan. The study data mainly came from two public, web-access information: (1) The physically and mentally disabled population by age and grade, 2000-2010; (2) Taiwan general population by age, 2000-2010. We used statistical methods include number, percentage and geographical information system (GIS) to describe the disability prevalence among the elderly people by year and administrative area, and a trend test was conducted to examine the overtime change of disability prevalence in the elderly people. The results found that the mean of disability prevalence rate in the elderly population was 14.8 percent and it was significantly increased during the past 11 years

($R^2 = 0.901$; $p < 0.0001$). With regards to the elderly disability prevalence disparity in administrative areas, those areas of higher elderly disability prevalence were more likely to occur in east-mountain areas--Taitung County (24.2 percent), Yilan County (21.0 percent), Hualien County (20.3 percent), and central-agricultural counties such as Yunlin County (21.8 percent), Nantou County (17.6 percent) and Chiayi County (17.3 percent). The most relative change areas of disability prevalence rate in the elderly population during the past 11 years were more likely to occur in central or east areas in Taiwan. The present study highlights the authorities should pay much attention to increasing rate and the geographical disparity of disability prevalence in the elderly population, to allocate appropriate health and welfare resources for this vulnerable population.

2011

Anaby, D., Eng, J.J., Jarus, T., Miller, W.C., & Noreau, L. (2011). **Participation and well-being among older adults living with chronic conditions.** *Social Indicators Research*, 100(1), 171-183.

ERIC #: EJ907415

ABSTRACT: This study explored the unique contribution of participation (daily activities and social roles) in explaining well-being of older adults living with chronic conditions and examined which aspect of participation (accomplishment of participation or satisfaction with participation) was more important in describing their well-being. Two hundred older adults with chronic conditions completed the following assessments: Satisfaction with Life Scale to measure well-being; Assessment of Life Habits to evaluate two aspects of participation: (a) accomplishment of daily activities and social roles and (b) level of satisfaction with participation; Interpersonal Support Evaluation List to assess level of social support and Affect Balance scale to measure level of balance confidence. In addition, participants' level of mobility was assessed using the Timed Up and Go test. Regression analysis was performed. Results indicated that number of chronic conditions, social support and satisfaction with participation had a significant contribution to well-being and altogether explained 31 percent of its variance whereas accomplishment of participation did not play as significant role in the model. In conclu-

sion, participation has a unique contribution to older adults' well-being where satisfaction with participation rather than the accomplishment of activities is of importance. Additional aspects of participation and level of disability are key factors identified for further inquiry.

Bigby, C., Bowers, B., & Webber, R. (2011). **Planning and decision making about the future care of older group home residents and transition to residential aged care.** *Journal of Intellectual Disability Research*, 55(8), 777-789.

ERIC #: EJ932673

ABSTRACT: Background: Planning for future care after the death of parental caregivers and adapting disability support systems to achieve the best possible quality of life for people with intellectual disability as they age have been important issues for more than two decades. This study examined perceptions held by family members, group home staff and organizational managers about the future of older residents and the decisions made that a move to residential aged care was necessary. Methods: Grounded Dimensional Analysis was used to guide data collection and analysis by an interdisciplinary research team. Three sets of interviews over a period of 18 months were conducted with a family member, house supervisor and the program manager for each of seventeen older group home residents in Victoria. For the eight people for whom it was decided a move was necessary and the six who eventually moved focused questions were asked about the decision-making process. Results: While plans for lifelong accommodation in a group home proved unfounded, key person succession plans were effective. However, decisions to move to a residential aged care facility where necessary were made in haste and seen as a fait accompli by involved family members. Conclusions: Although family members take seriously their mandate to oversee well-being of their older relative, they have little knowledge about their rights or avenues to safeguard untimely or inappropriate decisions being made by professionals.

Cartwright, C., Craig, J., & Shaw, K. (2011). **The housing and support needs of people with an intellectual disability into older age.** *Journal of Intellectual Disability Research*, 55(9), 895-903.

ERIC #: EJ935832

ABSTRACT: Background: People with intellectual disabilities (IDs) are growing older as a population cohort. Many live at home with family members who are their carers but who are also becoming older and less able to provide care. The housing and support preferences of people with IDs and their carers into older age are poorly characterized in the literature. Methods: Focus groups and individual interviews were conducted with 15 people with IDs who work in supported employment and with 10 family members who care for adults with IDs. Data were thematically analyzed independently by two researchers. Results: The major themes that emerged were as follows: (1) living arrangements; (2) housing preferences; (3) ageing in place; and (4) transition from informal to formal housing and support services. Conclusions: Participants with an ID and their carers want housing and support that enable people with an ID to maintain and enhance their social networks with their peers as they grow older and require transition to formal housing and support services, and to be able to "age in place". A preference was expressed for models of housing that provide the opportunity for people with an ID to live in close proximity to their peers and in large groups in the community rather than in small, dispersed community housing.

Evenhuis, H.M., Hilgenkamp, T.I.M., & van Wijck, R. (2011). **(Instrumental) activities of daily living in older adults with intellectual disabilities.** *Research in Developmental Disabilities: A Multidisciplinary Journal*, 32(5), 1977-1987.

ERIC #: EJ928731

ABSTRACT: Daily living skills are important to ageing adults with intellectual disabilities (ID). The purpose of this study was to investigate the level of these skills in older adults with ID and to investigate the influence of gender, age, level of ID and mobility on these skills. Daily living skills were measured with the Barthel Index (for Activities of Daily Living, ADL) and the Lawton IADL scale (for Instrumental Activities of Daily Living, IADL) in 989 adults with ID aged 50 years and over living in community-based and institutional settings. Descriptives were presented by categories of gender, age, level of ID and mobility. Regression analysis was used to investigate the influence of these variables on total and item scores of ADL and IADL questionnaires. ADL and IADL

scores in older adults with ID are comparable to those of vulnerable patient groups. Total ADL score was mainly determined by mobility, while total IADL score was mainly determined by level of ID. Of all 18 separate items of these questionnaires, 11 were determined more by mobility than level of ID. The Barthel Index and Lawton IADL scale are recommended for future use in research and clinical practice in this group. This study stresses the need to support mobility older adults with ID as much as possible, in order to optimize independency in this group.

2010

Amble, K., Flory, M., & Patti, P. (2010). **Placement, relocation, and end of life issues in aging adults with and without Down's syndrome: A retrospective study.** *Journal of Intellectual Disability Research, 54*(6), 538-546.

ERIC #: EJ883402

ABSTRACT: Background: Aging adults with Down's syndrome (DS) experience more relocations and other life events than adults with intellectual disabilities aged 50 and older without DS. Age-related functional decline and the higher incidence of dementia were implicated as the contributing factors that led to relocation and nursing home placement. Method: A retrospective study of adults with intellectual disabilities who were born prior to the year 1946 was conducted to analyze the number of relocations experienced over a 5- and 10-year period. The cohort consisted of 140 individuals (61 with DS between ages 50-71 years, and 79 without DS between ages 57-89 years) who had been referred to a diagnostic and research clinic. Results: Analyses revealed the number of relocations over a 5- and 10-year period were significantly greater in the DS group. Placement in a nursing home for end of life care was significantly higher in the DS group whereas the majority (90 percent) in the non-DS group remained in a group home setting. Mortality was significantly earlier in the DS group with the mean age at death to be 61.4 years compared with 73.2 years in the non-DS group. Conclusions: The present results suggest that aging adults with DS encounter more relocations, and are more likely to have their final placement for end of life care in a nursing home. In contrast, the adults without DS were subjected to less relocation and remained in

the same group home setting.

Darling, R.B., & Heckert, D.A. (2010). **Orientations toward disability: Differences over the life course.** *International Journal of Disability, Development and Education, 57*(2), 131-143.

ERIC #: EJ885017

ABSTRACT: This article presents the results of a study of differences in orientation toward disability over the life course. The study was based on an instrument developed by the authors, the Questionnaire on Disability Identity and Opportunity (QDIO). This instrument measures two dimensions of disability: participation and orientation. Orientation, in turn, consists of the dimensions of identity, role, and model. In an earlier study, the QDIO was validated with a convenience sample of 388 people with disabilities in the United States. Using the same data, this article focuses on the association between disability orientation and aging. Among other findings, we found that age was negatively associated with "disability pride" and positively associated with exclusion. However, the interpretation of these findings is limited by the fact that age was strongly associated with age at disability onset in this sample. The discussion speculates about why older adults are less likely to have been exposed to the "social model" of disability and suggests the value of these findings for interventions with older populations.

Ferraro, K.F., & Pressler, K.A. (2010). **Assistive device use as a dynamic acquisition process in later life.** *Gerontologist, 50*(3), 371-381.

ERIC #: EJ886991

ABSTRACT: Purpose: This study identifies risk factors, including incident disability, for the use of assistive devices (ADs) among older people. Design and Methods: Three waves of data from the National Long-Term Care Survey are used to examine whether upper and lower body disability lead to use of ADs (both number of devices used and number of activities of daily living domains for which ADs are used). Predictors of AD use include demographic variables, body mass index, and disability (both initial and incident). Relationships are estimated with negative binomial regression models. Results: Lower body disability, advanced age, and obesity are consistent predictors of the number of ADs used. An interaction between age and incident disability revealed the high-

est rate of adoption among the younger respondents who experienced increases in disability. Implications: Many older adults use ADs in response to the disablement process. In addition to need driven by rising disability, obese older adults use more ADs. Results from this study clarify who and why ADs are adopted by older persons and should facilitate effective intervention by health care personnel and caregivers.

2009

Cleaver, S., Hunter, D., & Ouellette-Kuntz, H. (2009). **The prevalence and severity of physical mobility limitations in older adults with intellectual disabilities.** *Journal of Applied Research in Intellectual Disabilities*, 22(5), 477-486.

ERIC #: EJ851101

ABSTRACT: Background: The population of older adults with intellectual disabilities is growing, creating new challenges for individuals, families and service providers. Although there has been increased research into the ageing process for adults with intellectual disabilities, there is little focused research investigating physical mobility. Materials and Methods: A proxy-response telephone survey was conducted to establish the prevalence and severity of mobility limitations among adults with intellectual disabilities, aged 45 years and over, using validated instruments to quantify mobility in a representative population-based sample. Results: Surveys were completed for 128 people. Mobility limitations were common, but the prevalence varied depending on the definition of mobility limitation. The prevalence of limitations was greater among females than males, but no clear age trend was seen. Conclusions: The common nature of mobility limitations among the growing population of older adults with intellectual disabilities has implications for service providers and policy-makers.

2008

Lifshitz, H., Merrick, J., & Morad, M. (2008). **Health status and ADL functioning of older persons with intellectual disability—Community residence versus residential care centers.** *Research in Developmental Disabilities: A Multidisciplinary Journal*, 29(4), 301-315.

ERIC #: EJ797458

ABSTRACT: The objective of the study was to study differences in aging phenomena among adults with intellectual disability (ID), who live in community residence versus their peers in residential care centers and to determine the contribution of health status, age, gender, etiology and level of ID to the decline in ADL function with age. Our study was based on matched pairs between persons with ID in community residence (N = 101) and their peers living in residential centers (N = 101) by age, gender, etiology and level of ID. Fifty-three percent were aged 40-49 years, 23 percent were aged 50-59 years and 14 percent were aged 60-71 years. Ten percent had Down syndrome (DS), 16 percent had cerebral palsy (CP) and the rest had ID with no specific etiology (NSID). Caregivers were interviewed to ascertain health problems, sensory impairments and activity of daily living (ADL). The type of residence alone could not explain the morbidity and health problems of adults with ID, which were affected by age and etiology. Participants with NSID functioned better than those with Down syndrome or cerebral palsy in all ADL areas. MANOVA and regression analysis indicated that age and health status did not contribute to the explained variance of the ADL function of the participants without specific etiology. The CP group had the most vulnerable etiology exposed to medical problems and decline in ADL function with age. Action should be taken to increase the awareness of the staff to health deterioration that can occur among adult persons with ID, especially among various types of etiologies, such as DS and CP.

Maes, B., & Van Puyenbroeck, J. (2008). **Adaptation of Flemish services to accommodate and support the aging of people with intellectual disabilities.** *Journal of Policy and Practice in Intellectual Disabilities*, 5(4), 245-252.

ERIC #: EJ835314

ABSTRACT: The authors attempted to find out to what extent and in which ways, in Belgium, have Flemish services for people with intellectual disability adapted to the specific needs of aging people. A study was undertaken and a questionnaire was developed to address the following research topics: (1) accommodations and personnel, (2) staff working methods, and (3) staff views and attitudes. The questionnaire was completed by 66 coordinating staff members in

as many facilities. At the time of our study, these services supported 310 (27 percent) persons with Down syndrome age 40 years and older and 833 (73 percent) persons with intellectual disability (other than Down syndrome) age 55 years and older. Adaptations in accommodation and personnel management were obvious in the majority of the participating services. The working methods reflected a person-centered philosophy, regardless of the age-factor. An exploratory factor analysis revealed three different staff approaches: an activating/socializing, disengaging, and methodical. Participation in activities and involvement in social relations have a prominent place in the staff's views. In general, the authors found that about two-thirds of the services have started to modify their accommodation and personnel to the needs of aging people with intellectual disability. The authors note also that the results suggest there is still a lot of work to do in improving staff training, introducing specific working methods, and in altering stereotypical staff attitudes to assure a good "aging in place."



Documents from the National Library of Medicine PubMed search at www.pubmed.com are listed below:

2012

Autism Ageing Writing Group, Baron, M., Mukae-tova-Ladinska, E.B., Perry, E., & Povey, C. (2012). **Ageing in people with autistic spectrum disorder.** *International Journal of Geriatric Psychiatry*, 27(2), 109-18.

PMID #: 21538534

ABSTRACT: **BACKGROUND:** Although autism in children and in adults attracts attention with respect to clinical and research needs, autism in the older individuals has not been considered to any degree. We review the evidence for urgently addressing the question of ageing in people with autistic spectrum disorder (ASD), focusing on those with disability. **METHODS:** Perspectives are reviewed in relation to demographics, experiences of relatives or carers, anticipated residential care needs, requirement for specifically designed cognitive assessment tools and

importance of initiating new brain ageing research initiatives in this area. **RESULTS:** With escalating numbers of ASD individuals with disability reaching old age, provision of care is the paramount issue that is only beginning to be addressed in a few European communities and in the USA. How ageing affects cognition in such individuals as they reach an age no longer consistent with parental care is unknown, lacking any published evidence, and there is a clear need to design cognitive and behavioral assessment tools appropriate to ageing in ASD individuals with disability, as was the case with respect to dementia as a whole. Although there is a growing body of evidence on pathological, imaging, neuropharmacological and other key brain abnormalities in ASD, these are, to date, confined to children and young (only rarely to middle aged) adults. **CONCLUSIONS:** The need for new initiatives in research into ageing in ASD is urgent. Apart from a growing care crisis, the prospect of understanding brain ageing in this population may bring potential rewards beyond immediate clinical need given the precedent of Down syndrome.

Campbell, M., Tilly, J., & Washko, M.M. (2012). **Accelerating the translation of research into practice in long term services and supports: A critical need for federal infrastructure at the nexus of aging and disability.** *Journal of Gerontological Social Work*, 55(2), 112-25.

PMID #: 22324329

ABSTRACT: The nexus of aging and disability, characterized by the phenomenon of aging with a disability, will become more visible as the population ages and the number of people with disabilities surviving to midlife increases. This article addresses three interrelated issues critical to the fields of aging and disability: increasing demand for community-based long-term services and supports, a paucity of evidence-based programs demonstrating effectiveness in facilitating independence for those aging with a disability, and lack of a federal infrastructure to support coordinated investments in research-to-practice for this population. Suggestions for federal interagency collaborations are given, along with roles for key stakeholders.

Clark-Shirley, L.J., Howard, J., Poey, J., Ruiz, S., & Urdapilleta, O. (2012). **Indicators of a balanced**

long-term service and support system: Examining the impact on individuals aging with a lifelong disability. *Journal of Gerontological Social Work*, 55(2), 126-45.

PMID #: 22324330

ABSTRACT: This article explores how rebalancing efforts can support the needs of individuals aging with a lifelong disability. The National Balancing Indicator project examined the overall long-term supports and services system (LTSS) progress in five indicators within the Sustainability, Coordination and Transparency, and Prevention principles toward a balanced LTSS system for those aging with a lifelong disability. In assessing state efforts to create a balanced participant-directed LTSS system with the National Balancing Indicators, the findings suggest states are better equipping the system to handle a burgeoning population of individuals aging with a lifelong disability, but more progress is still needed. Overall, states need to continue to create a seamless system that allows individuals with lifelong disabilities to transition smoothly through the life course.

Holme, L., Jeppsson, G.E., Taghizadeh, L.A., & Whitaker, A. (2012). **A long life with a particular signature: Life course and aging for people with disabilities.** *Journal of Gerontological Social Work*, 55(2), 95-111.

PMID #: 22324328

ABSTRACT: What does it mean to live a long life and grow old with disabilities or to be an aging parent and still be a caregiver to a disabled adult child? These are questions discussed in this article, the aim of which is to show how a life course perspective adds insight to the lived experience of disability and ageing of adults with disabilities. It is argued that the time concept is fundamental to the understanding of the lives of disabled people. Results are presented which challenge established knowledge regarding disability policies, autonomy, body, biographical disruption and prerequisites of active aging.

2011

Barbarese, W.J., Blum, N.J., & Stein, D.S. (2011). **Developmental and behavioral disorders through the life span.** *Pediatrics*, 128(2), 364-73.

PMID #: 21768324

ABSTRACT: Developmental and behavioral disorders including intellectual disability, learning disabilities, and attention-deficit/hyperactivity disorder are highly prevalent, chronic health conditions. Despite being versed in caring for children with these conditions, pediatricians might be less prepared for challenging questions from families about the long-term course of these conditions and what can be done to improve outcomes. Through this state-of-the-art review, we provide clinicians with an understanding of the course of these conditions and adult outcomes in several areas including vocational, social, and health domains. We also provide a review of the most current research examining factors that predict or mediate adult outcomes for people with intellectual disability, learning disabilities, and attention-deficit/hyperactivity disorder. On the basis of the current literature, we offer practice recommendations aimed at optimizing adult outcomes for those with these disorders.

Belza, B., Bombardier, C.H., Hoffman, J.M., & Rosenberg, D.E. (2011). **Physical activity among persons aging with mobility disabilities: Shaping a research agenda.** *Journal of Aging Research*, 2011, 708510. Epub 2011 Jun 26.

PMID #: 21748010

ABSTRACT: With the aging of the baby boomer population and their accompanying burden of disease, future disability rates are expected to increase. This paper summarizes the state of the evidence regarding physical activity and aging for individuals with mobility disability and proposes a healthy aging research agenda for this population. Using a previously published framework, we present evidence in order to compile research recommendations in four areas focusing on older adults with mobility disability: (1) prevalence of physical activity, (2) health benefits of physical activity, (3) correlates of physical activity participation, and (4) promising physical activity intervention strategies. Overall, findings show a dearth of research examining physical activity health benefits, correlates (demographic, psychological, social, and built environment), and interventions among persons aging with mobility disability. Further research is warranted.

Chapman, L., Ellison, C., & White, A. (2011). **Avoiding institutional outcomes for older adults living with disability: The use of community-based aged**

care supports. *Journal of Intellectual & Developmental Disability*, 36(3), 175-83.

PMID: 21843032

ABSTRACT: **BACKGROUND:** Most people with a disability want to remain living in their own home as they age. Without additional support, people with a disability may not be able to avoid moving into residential aged care, attending day programs, or becoming isolated from participation in the wider community. This study examined whether participants perceived access to community-based aged care supports assisted with avoiding receiving more institutional models of service as they age. **METHOD:** Qualitative research processes were used to explore the perceptions of 60 individuals with a disability aged 50 years and over, in relation to ageing and the value of community-based aged care. **RESULTS:** Findings indicated that participants receiving community-based aged care supports reported benefits including opportunities to develop relationships, maintain daily living skills, and participate in community activities. **CONCLUSION:** Due to a lack of confidence in the availability of access to mainstream community-based aged care services, many participants felt vulnerable or unsure about their future and ability to remain living in their own home. Several participants commented that this meant that an undesired early relocation into residential aged care or congregate disability services appeared inevitable.

Chau, D., Hoyek, G.E., & Kim, N.H. (2011). **Long-term care of the aging population with intellectual and developmental disabilities.** *Clinics in Geriatric Medicine*, 27(2), 291-300.

PMID #: 21641512

ABSTRACT: The aging population with intellectual and developmental disabilities (I/DD) deserves appropriate health care and social support. This population poses unique medical and social challenges to the multidisciplinary team that provides care. In the past, long-term care (LTC) facilities played an essential role in the livelihood of this population. The likelihood that the geriatric LTC system must prepare for adequately caring for this population is high. This article conveys the need to prepare for the inclusion of the growing aging population with I/DD into long-term care with the general elderly population in the near future.

Cummings, S.M., & Kropf, N.P. (2011). **Aging with a severe mental illness: Challenges and treatments.** *Journal of Gerontological Social Work*, 54(2), 175-88.

PMID #: 21240715

ABSTRACT: Severe mental illness (SMI) impacts many different facets of individuals' lives.

As they age, those with SMI experience increased physical illnesses, functional impairment, cognitive deficits, and social disability. To promote more effective social work practice with this population, this article highlights the major biopsychosocial and family issues of aging with a psychiatric diagnosis. In addition, intervention approaches that have demonstrated efficacy are summarized along with ways to coordinate services across multiple service delivery sectors. Finally, future directions in practice and research are presented to develop additional methods of support for older adults with SMI and their families.

Greco, S.M., & Vincent, C. (2011). **Disability & aging: An evolutionary concept analysis.** *Journal of Gerontological Nursing*, 37(8), 18-27.

PMID #: 21485986

ABSTRACT: The idealized image of successful aging as living independently and autonomously does not convey reality for many adults in the United States and globally who are living with a disability. There have been inconsistencies throughout the literature in defining disability and aging. A concept analysis using Rodgers' method was undertaken to define the concept of disability and aging, understand its antecedents and consequences, and determine the implications for nursing practice and research. Four attributes were defined: limitation in physical, sensory, and/or mental function; universal human experience; difficulties in activities of daily living (ADLs)/instrumental ADLs; and social construction. Exemplars were identified to provide a representation of the attributes in context, and a model of disability and aging was created. This concept analysis provides a better understanding of disability and aging, which can enable nurses to provide education and advocacy to older adults and their families.

Pagan, R. (2011). **Ageing and disability: Job satisfaction differentials across Europe.** *Social Science & Medicine*, 72(2), 206-15.

PMID #: 21145635

ABSTRACT: This article analyses the levels of job satisfaction reported by older workers (ages 50-64) with and without disabilities at a European level. Using data from the Survey of Health, Ageing and Retirement in Europe (2004 and 2007), we estimate job satisfaction equations for non-disabled, non-limited disabled and limited disabled workers, and decompose the observed job satisfaction gap by using the widely-used Oaxaca-Blinder methodology. The results show that after controlling for some variables, older workers with disabilities who are limited in their daily activities are less likely to be satisfied with their jobs as compared to their non-disabled counterparts. However, after estimating separate models for each group and doing the Oaxaca-Blinder decomposition, we found that older workers with limiting disabilities have greater returns in terms of job satisfaction from their job characteristics (such as wages, tenure and working in the private sector) as compared to non-disabled individuals. This finding supports the hypothesis of lower expectations about jobs of disadvantaged groups (e.g. limited disabled population) and has important public policy implications.

Putnam, M. (2011). **Perceptions of difference between aging and disability service systems consumers: Implications for policy initiatives to rebalance long-term care.** *Journal of Gerontological Social Work, 54*(3), 325-42.

PMID #: 21462062

ABSTRACT: This study explores service professionals' perceptions of how and why older adults and younger persons with disabilities are different consumers and clients within the long-term care service sector. Data are from 2004, early in the history of federal long-term care rebalancing initiatives, reflecting perceptions at that time. Findings suggest professionals working within aging, developmental disability, and physical disability service networks believe significant distinctions exist related to age of clients and nature of service required and how it is delivered. Overall need for greater professional and organizational capacity to support provision of service to both aging and disability populations is reported.

2010

Dudgeon, B., Harris, S.R., Horsman, M., & Suto, M. (2010). **Ageing with cerebral palsy: Psychosocial issues.** *Age and Ageing, 39*(3), 294-9.

PMID #: 20178997

ABSTRACT: BACKGROUND: although much has been written about biomedical concerns in adults ageing with cerebral palsy (CP), few studies or reviews have addressed psychosocial aspects. **OBJECTIVE:** the purpose of this narrative review is to critically examine studies that have addressed needs for social support, as well as issues affecting morale, self-efficacy, health attitudes, employment and sense of coherence (SOC) in adults ageing with CP. **DESIGN:** a systematic and detailed search of the literature was conducted. **METHODS:** searches of CINAHL (1982-present), ERIC, PubMed (1950-present), MEDLINE (Ovid) and Web of Science databases, as well as the American Academy of Cerebral Palsy and Developmental Medicine website, were conducted. Key search terms included 'cerebral palsy and ageing', 'adults with cerebral palsy', 'secondary conditions', 'functional loss', 'health' and 'psychosocial'. Nine studies were recovered that described psychosocial consequences of living with a lifespan disability. We used McMaster University's Guidelines for Critical Review Form--Quantitative and Qualitative Studies to evaluate the studies. **RESULTS:** psychosocial issues of concern to adults ageing with CP include the need for social support, self-acceptance and acceptance by others; the need for accommodations in the workplace and the environment; and SOC of adults ageing with CP.

CONCLUSIONS: several studies concluded that adults with CP need greater knowledge and understanding to enhance decision-making processes about their health. The studies reviewed also provide knowledge for healthcare and social service providers who care for adults with CP to better understand how psychosocial health can be preserved during the ageing process.

Dudgeon, B., Harris, S.R., Horsman, M., & Suto, M. (2010). **Growing older with cerebral palsy: Insiders' perspectives.** *Pediatric Physical Therapy, 22*(3), 296-303.

PMID #: 20699780

ABSTRACT: **PURPOSE:** Research has shown that adults with cerebral palsy (CP) lose functional abilities earlier than persons who are able-bodied. Because CP is a lifespan disability, developmental therapists should be aware of these changes. **METHODS:** We used descriptive phenomenology to understand the unique, lived experiences of adults growing older with CP. Data were gathered through in-depth, semi-structured interviews. Open-ended questions asked what it was like to age with CP, how these experiences were understood, how strategies were used to cope with changes, and what was the meanings of these experiences. **RESULTS:** A theme, Awareness, Acceptance, and Action, emerged from the data analysis. Participants were aware that their bodies were deteriorating quicker than those of peers who are able-bodied. They developed acceptance that hastened actions toward improving their quality of life. **CONCLUSIONS:** These findings provide insights for pediatric therapists who work with children with CP about what may be important to their clients as they grow older.

Horner-Johnson, W., McGee, M.G., Michael, Y.L., Rosso, A.L., & Wisdom, J.P. (2010). **Aging with a disability: A systematic review of cardiovascular disease and osteoporosis among women aging with a physical disability.** *Maturitas*, 68(1), 65-72.

PMID #: 21075569

ABSTRACT: Compared to men, women live longer but experience greater morbidity as they age. However, little is known about the rapidly growing population of women aging with disability. Women aging with disabilities may encounter barriers that increase risk of morbidity, including lack of access to medical care or inadequate assistance, equipment, or services. To evaluate risks of morbidity in this group, we conducted a systematic review focused on two important and prevalent conditions: cardiovascular disease (CVD) and osteoporosis. MEDLINE was searched for reports published between January 1, 1990 and August 6, 2010 and additional studies were identified through searches of bibliographies. 9156 abstracts and 93 articles were reviewed to identify empirical studies of women with physical disability who were 45 years or older and that reported CVD or osteoporosis as an outcome and not a cause of the disability. Articles meeting inclusion criteria were

then critically appraised to exclude poor quality studies. In seven articles that evaluated CVD outcomes, we found limited evidence to support an increased risk of prevalence of CVD or risk factors for CVD in women aging with physical disabilities compared to non-disabled control populations. The literature is limited by small sample sizes that reduced statistical power to detect true differences. No articles meeting inclusion criteria were identified to evaluate osteoporosis risk in this group. This review is limited by the narrow focus on physical disabilities and two health outcomes. Additional high quality empirical research is necessary to understand the risks to health of women aging with disabilities.

Jensen, M.P., McMullan, K.A., Molton, I., & Yorkston, K.M. (2010). **Pathways of change experienced by people aging with disability: A focus group study.** *Disability and Rehabilitation*, 32(20), 1697-704.

PMID #: 20225933

ABSTRACT: **PURPOSE:** To examine the issues related to aging with disability from the perspective of the person with the disabilities. **METHOD:** Twelve community-dwelling adults with spinal cord injury, post-polio syndrome or multiple sclerosis participated in focus groups where they were asked open-ended questions about changes related to aging with disability, accommodations made and perspectives on the future. **RESULTS:** Results of qualitative analysis suggested five major themes related to aging with a disability: (1) Participant identity, including comments about how participants described themselves and their lives with a long-standing disability; (2) Physical pathways including comments about the progression of physical symptoms; (3) Psychosocial pathways, including descriptions of adaptations to disability, the development of emotional well-being and strategies to deal with disability; (4) Changing health care, reflecting improvement noted over time in health care services; and (5) Concerns about the future, including comments reflecting participant uncertainty about the potential course of disability. **CONCLUSIONS:** The process of aging with disability was characterized by multiple pathways. Some, including positive psychosocial adjustment and medical advancements, were favorable, while others, including physical decline, were not. The co-existence of high quality of life in

the presence of physical decline is consistent with a larger literature in older adults, and future research should focus on identifying aging factors that may contribute to the buffering the psychological impact of physical decline.

Milton, K., Sorkin, L., Sperber, K., & Stern, M. (2010). **Aging with multiple sclerosis.** *Physical Medicine and Rehabilitation Clinics of North America*, 21(2), 403-17.

PMID #: 20494285

ABSTRACT: Multiple sclerosis is a chronic, disabling disease frequently striking young adults. Caring for a patient with this uncertain and progressive disease requires a comprehensive and multi-disciplinary approach. Many patients with multiple sclerosis will have near normal lifespan; therefore it is vital that the health care professional be aware of the potential complications that these patients face from their disease and from the aging process. Understanding the challenges faced by an aging patient with multiple sclerosis can help the health care professional minimize morbidity and disability.

Moran, J.A., & Perkins, E.A. (2010). **Aging adults with intellectual disabilities.** *Journal of the American Medical Association*, 304(1), 91-2.

PMID #: 20606156

No abstract is available.

Swanson, M.E. (2010). **Need for the life course model for spina bifida.** *Pediatric Clinics of North America*, 57(4), 893-901.

PMID #: 20883879

ABSTRACT: Because children with chronic conditions, such as spina bifida, have grown up into adults in increasing numbers, they and their families have increasingly questioned whether they have reached their full potential and maximized their participation in adult activities. Lack of knowledgeable adult medical providers and longitudinal data about natural history places more responsibility on individuals and their family for self-care of the impairment. This article describes the need for the life course model, which merges several concepts and principles related to children with disabilities and provides a framework for services and research to achieve the desired adult outcomes.

2009

Haak, P., Hidecker, M.J., Lenski, M., Li, M., & Paneth, N. (2009). **Cerebral palsy and aging.** *Developmental Medicine and Child Neurology*, 51 Suppl 4, 16-23.

PMID #: 19740206

ABSTRACT: Cerebral palsy (CP), the most common major disabling motor disorder of childhood, is frequently thought of as a condition that affects only children. Deaths in children with CP, never common, have in recent years become very rare, unless the child is very severely and multiply disabled. Thus, virtually all children assigned the diagnosis of CP will survive into adulthood. Attention to the adult with CP has been sparse, and the evolution of the motor disorder as the individual moves through adolescence, young adulthood, middle age, and old age is not well understood. Nor do we know what happens to other functional domains, such as communication and eating behavior, in adults with CP. Although the brain injury that initially causes CP by definition does not progressively worsen through the lifetime, the effects of CP manifest differently throughout the lifespan. The aging process must inevitably interact with the motor disorder, but we lack systematic, large-scale follow-up studies of children with CP into adulthood and through adulthood with thorough assessments performed over time. In this paper we summarize what is known of the epidemiology of CP throughout the lifespan, beginning with mortality and life expectancy, then survey what is known of functioning, ability, and quality of life of adults with CP. We conclude by describing a framework for future research on CP and aging that is built around the World Health Organization's International Classification of Functioning, Disability, and Health and suggest specific tools and approaches for conducting that research in a sound manner.

2008

Bigby, C., Boulton-Lewis, G., Buys, L., Edwards, H., Knox, M., & Tedman-Jones, J. (2008). **Issues of active ageing: Perceptions of older people with lifelong intellectual disability.** *Australian Journal on Aging*, 27(2), 67-71.

PMID #: 18713195

ABSTRACT: OBJECTIVE(S): The study aimed

to investigate the lived experiences of older people with lifelong intellectual disability and to explore the meaning of active ageing for this group. **METHODS:** Data were collected using semi-structured interviews with 16 service users (people with lifelong intellectual disability aged 50+ years); 16 service providers and 16 key informal network members from regional/rural and urban areas in Queensland and Victoria. **RESULTS:** Themes identified: being empowered, being actively involved, having a sense of security, maintaining skills and learning, having congenial living arrangements, having optimal health and fitness, being safe and feeling safe and having satisfying relationships and support. **CONCLUSIONS:** Service users wanted to 'keep on keeping-on' in areas of life that gave them pleasure rather than discontinuing them because of age. They wanted more control over issues affecting their lives and to be given meaningful roles. Mental stimulation, companionship, reliable support and safety were valued by this group.

2007

Barnhart, R.C., & Connolly, B. (2007). **Aging and Down syndrome: Implications for physical therapy.** *Physical therapy, 87*(10), 1399-406.

PMID #: 17712035

ABSTRACT: The number of people over the age of 60 years with lifelong developmental delays is predicted to double by 2030. Down syndrome (DS) is the most frequent chromosomal cause of developmental delays. As the life expectancy of people with DS increases, changes in body function and structure secondary to aging have the potential to lead to activity limitations and participation restrictions for this population. The purpose of this update is to: (1) provide an overview of the common body function and structure changes that occur in adults with DS as they age (thyroid dysfunction, cardiovascular disorders, obesity, musculoskeletal disorders, Alzheimer disease, depression) and (2) apply current research on exercise to the prevention of activity limitations and participation restrictions. As individuals with DS age, a shift in emphasis from disability prevention to the prevention of conditions that lead to activity and participation limitations must occur. Exercise programs appear to have potential to positively affect the overall health of adults with DS, thereby increasing

the quality of life and years of healthy life for these individuals.

Field, M.J., & Jette, A.M., (eds.). (2007). **The Future of Disability in America.** Washington (DC): National Academies Press.

PMID #: 20669428

ABSTRACT: The 1991 Institute of Medicine (IOM) report, "Disability in America" and the 1997 IOM report "Enabling America" highlighted disability as a topic of public health action and scientific inquiry. The reports also offered recommendations on the prevention of disability and the role of rehabilitation science and engineering. For this report, which was supported by the Centers for Disease Control and Prevention, the U.S. Department of Education, and the National Institutes of Health, a new IOM committee was charged with reviewing developments since the publication of the earlier IOM reports. As agreed upon with the study's sponsors, the review focused on several topics, including methodological and policy issues related to the definition, measurement, and monitoring of disability; trends in the amount, types, and causes of disability; secondary health conditions and aging with disability; transitions for young people with disabilities from pediatric to adult health care services; assistive technologies and supportive physical environments; coverage of assistive technologies and risk adjustment of payments to health plans; and directions for research.

2006

Dew, A., Gorman, J., & Llewellyn, G. (2006). **"Having the time of my life": An exploratory study of women with intellectual disability growing older.** *Health Care for Women International, 27*(10), 908-29.

PMID #: 17050333

ABSTRACT: In this paper we report on an exploratory study with a group of 13 older women with intellectual disability in Sydney, Australia, to add to the limited knowledge about how they perceive their lives as they grow older. We report the findings from the qualitative data gathered as an extension of a structured interviewing process. Analysis revealed five themes: "it's just who I am," "enjoying support from family and friends," "being part of the community," "feeling healthy," and having "enough money

to buy what I need." We discuss these themes in relation to the concept of resilience. Overall, the women we talked with were ageing well, with meaningful, productive, and sustainable lives.

2005

Baer, H.R., Klingbeil, H., & Wilson, P.E. (2005). **Ag-ing with a disability.** *Archives of Physical Medicine and Rehabilitation*, 85(7 Suppl 3):S68-73; quiz S74-5. PMID #: 15221734

ABSTRACT: This focused review highlights important issues in the care of persons who are aging with a disability. It is part of the study guide on geriatric rehabilitation in the Self-Directed Physiatrial Education Program for practitioners and trainees in physical medicine and rehabilitation. This article specifically focuses on significant medical and rehabilitation issues pertinent to persons with cerebral palsy, spina bifida, post-poliomyelitis syndrome, and selected other neurologic and neuromuscular diseases. In addition to normal physiologic aging, people with these conditions often experience secondary complications and accelerated impairments because of aging itself. These complications are described, and monitoring strategies and treatment are recommended. OVER-ALL ARTICLE OBJECTIVE: To summarize issues in the care of persons aging with a disability.

Burt, D.B., Cleveland, L.A., Lesser, J., Lewis, K.R., Loveland, K.A., Pearson, P.L., & Primeaux-Hart, S. (2005). **Ag-ing in adults with intellectual disabilities.** *American Journal of Mental Retardation*, 110(4), 268-84.

PMID #: 15941364

ABSTRACT: A cross-sequential design was used to examine changes related to aging in adults with and without Down syndrome (ns = 55 and 75, respectively). Adults received yearly neuropsychological and medical evaluations. Support for precocious aging in adults with Down syndrome was evident only on a test of verbal fluency, with weaker support obtained on a test of fine-motor skills. Cross-sectional age differences for all adults were obtained on tests of memory and community living skills. General intellectual level, gender, and psychiatric status were consistently related to performance, indicating the need to examine such mediating variables in studies on aging.

Capoor, J., & Stein, A.B. (2005). **Ag-ing with spinal cord injury.** *Physical Medicine and Rehabilitation Clinics of North America*, 16(1), 129-61.

PMID #: 15561548

ABSTRACT: The years after spinal cord injury (SCI) may be associated with acceleration of the aging process because of diminished physiologic reserves and increased demands on functioning body systems. Clinicians with expertise in the treatment and prevention of SCI-specific secondary complications need to collaborate with gerontologists and primary care specialists and need to invest in the training of future physicians to ensure a continuum of accessible, cost-effective, and high-quality care that meets the changing needs of the SCI population. Managed care payers often do not adequately cover long-term disability needs to prevent secondary SCI-specific complications. In this era of increasing accountability, evidence-based clinical practice guidelines are needed to document scientific evidence and professional consensus to effectively diagnose, treat, and manage clinical conditions; to reduce unnecessary testing and procedures; and to improve patient outcomes. Longitudinal research is needed to minimize cohort effects that contribute to misinterpretation of cross-sectional findings as representative of long-term changes in health and functioning. However, longitudinal studies confound chronologic age, time since injury, and environmental change. Thus, time-sequential research, which controls for such confounding effects, is essential, as is research on the effects of gender, culture, and ethnicity. If we consider how much progress has been made over the past 50 years with respect to SCI mortality related to infectious disease, we can expect to achieve even greater progress against the effects of aging in the next 50 years. Recent developments in molecular biology regarding growth and neurotrophic factors are bringing us closer to the goal of repairing the damaged spinal cord. The challenge remains for rehabilitation professionals to provide the most comprehensive and holistic approach to long-term follow-up, with an emphasis on health promotion and disease prevention, to postpone functional decline and enhance quality of life.

Cruise, C.M., & Lee, M.H. (2005). **Delivery of rehabilitation services to people aging with a disability.** *Physical Medicine and Rehabilitation Clinics*

of North America, 16(1), 267-84.

PMID #: 15561555

ABSTRACT: The disabled elderly population continues to grow. Systems of care for the disabled elderly are vast, ranging from inpatient facilities to outpatient programs and home programs. Recent advances in technology allow us to reach patients in their homes through telemedicine. Support services within the community are growing, and case managers are becoming more necessary as it becomes more difficult to navigate the health care system. As providers of rehabilitative services, we must help our patients find the most appropriate setting to receive care. As the focus continues to shift from inpatient to outpatient care and to home services, we must approach health care in a dynamic fashion and with flexibility. We must be advocates for our patients and their caretakers. Significant research questions remain, and health care policy requires development. As the population ages and the disabled elderly population become a focus of fiscal experts, we must look to provide the most cost-effective yet functionally productive health care. We may shift from focusing on functional performance in a therapy gym or inpatient rehabilitation unit to functional performance at home. We must focus on individual activities of daily living and quality of life indicators and must strive to find ways to provide efficient, cost-effective care. Medicaid, Medicare, and third-party insurers offer various options. The Veterans Health Administration offers additional benefit to those who are eligible. Advocacy groups such as the American Association of Retired Persons struggle to meet its members' needs and concerns while generating income to provide education and other resources. We must work to promote the strengths of the elderly population by addressing preventive strategies while maintaining functional independence.

Fisher, K., & Kettl, P. (2005). **Ageing with mental retardation: Increasing population of older adults with MR require health interventions and prevention strategies.** *Geriatrics*, 60(4), 26-9.

PMID #: 15823058

ABSTRACT: The second half of the 20th century vastly increased the life span of those with mental retardation (MR). Today the average life expectancy of older adults with MR is 66.1 years and growing. As these individuals age, they present increasing chal-

lenges to the clinician. Increased rates of hearing and visual impairments, obesity, and osteoporosis as well as high rates of dementia with associated psychiatric problems make care for the aging individual with MR complex. Primary care providers need to be aware that elders with MR will comprise an increasing part of their practice, and that they present with many chronic conditions.

2004

Chase, S., Colantonio, A., Ratcliff, G., & Vernich, L. (2004). **Ageing with traumatic brain injury: Long-term health conditions.** *International Journal of Rehabilitation Research*, 27(3), 209-14.

PMID #: 15319691

ABSTRACT: Although traumatic brain injury (TBI) is a leading cause of death and disability in young adults, older adults over the age of 75 are also at high risk for TBI. As even mild injury can lead to disabling consequences, the long-term consequences of TBI need to be better understood, especially as the survival rate has increased dramatically in the last few decades. This research examined the prevalence of long-term health conditions after TBI. Using a retrospective cohort design, we examined consecutive records of adults with moderate to severe TBI discharged from a large rehabilitation hospital in Pennsylvania from 1974 to 1989. Baseline clinical information was abstracted from medical records. We interviewed consenting participants up to 24 years after injury. Our findings show a higher than expected prevalence of self-reported arthritis in the middle-aged population. There was also a high prevalence of problems with sleep and nerves many years post-injury. Some of the health conditions documented in this study could potentially be addressed early in rehabilitation; this study supports the screening of more physical health conditions in persons aging with TBI.

2003

Carmeli, E., Carmeli, V., Kessel, S., Masharawi, Y., & Merrick, J. (2003). **Elderly persons with intellectual disability: A study of clinical characteristics, functional status, and sensory capacity.** *Scientific World Journal*, 3, 298-307.

PMID #: 12806115

ABSTRACT: Longer life expectancy is resulting in increasing numbers of elderly adults with intellectual disability (ID). There has been the question whether persons with ID demonstrate early signs of aging before the general population. The aim of this study was to determine if persons with ID (with and without Down syndrome) showed premature aging changes compared with a control group. Elderly persons (n = 24, average age of 61) from one residential care center in Israel and younger adults from another center (n = 37, average age of 45) were compared with elderly residents without ID in an independent living facility. The study considered demographic data, medical data, anthropometric measurements, body fat and body mass index, flexibility, and sensorimotor function tests. The results showed that the persons with ID had basically similar body composition to that of persons without ID, however, the functional performance of elderly adults with ID was more impaired. We postulate that the slower functioning responses may be explained by a less physically active lifestyle, that may accelerate the onset of disease and result in symptoms associated with aging that are detrimental to health. It is therefore important that persons with ID participate in physical activity and exercises in order to promote health and prevent disease.

Harrison, T. (2003). **Women aging with childhood onset disability: A holistic approach using the life course paradigm.** *Journal of Holistic Nursing*, 21(3), 242-59.

PMID #: 14528849

ABSTRACT: Women with childhood onset disabilities (CODs) are living longer and it is time for holistic nurses to focus on understanding such women from a life course perspective. As women with CODs live into later adulthood, nurses must be prepared to anticipate and assist as needed. Without studies designed to understand the life course of these women, nursing can neither gain a clear understanding of the problems they face with aging nor help prevent the high number of social inequities, secondary conditions, and comorbidities experienced. To begin nursing's exploration of the problems faced by women with CODs, the relevant historical changes and literature associated with aging with a COD are reviewed. Next, the life course paradigm is critically analyzed in relation to the lives of these women. In conclusion,

it is posited that the life course paradigm provides the most useful guide for a holistic understanding of women with CODs.

Prakash, I.J. (2003). **Aging, disability, and disabled older people in India.** *Journal of Aging & Social Policy*, 15(2-3), 85-108.

PMID #: 14696691

ABSTRACT: India is witnessing a demographic revolution, leading to a considerable increase in the proportion of older people in the population. Similarly, life expectancy of both the mentally and physically disabled has improved considerably. About five percent of Indian older people have problems with physical mobility. Aging has become a gender issue in India not only because more women are surviving into old age; they are also vulnerable and disadvantaged in many ways. In most cases they are the only caregivers available for the old and disabled. Older Indians are considered a high-risk group for multiple morbidities. It is estimated that nearly four million Indians suffer from mental problems. India has around 12 million people designated as "handicapped." However, little information is available about disabled people who grow older. The National Policy on Older Persons, which has been recently formulated, aims at providing an improved quality of life for millions of older Indians. However, the concerns of older disabled and of the disabled who grow old are still treated separately in both policy and practice.

2002

Kemp, B., & Thompson, L. (2002). **Aging and spinal cord injury: Medical, functional, and psychosocial changes.** *SCI Nursing*, 19(2), 51-60.

PMID #: 12510506

ABSTRACT: Fifty years ago, people who had a spinal cord injury had very limited life expectancies. Today, these individuals can expect to live into their 60s, 70s, and beyond. Advances in rehabilitation, technology, surgery, and medicines have been chiefly responsible for this change. Recent research in both Europe and the United States now indicates that as these people age, they often develop medical and functional problems that are not as common in their nondisabled peers until much later in life. The importance of these "premature" age-related prob-

lems has led the National Institute on Disability and Rehabilitation Research to fund the Rehabilitation Research and Training Center (RRTC) on Aging with a Spinal Cord Injury at Rancho Los Amigos National Rehabilitation Center in Downey, California. This article summarizes some of the important findings from this RRTC and from other sources.

Putnam, M. (2002). **Linking aging theory and disability models: Increasing the potential to explore aging with physical impairment.** *Gerontologist*, 42(6), 799-806.

PMID #: 12451161

ABSTRACT: PURPOSE: Social theories of aging are discussed in relation to their preparedness to address the aging-with-physical impairment phenomenon. **DESIGN AND METHODS:** An overview of the social theories of aging is presented. Individual theories of aging are reviewed to examine (a) how they currently depict and/or include disability in their frameworks and (b) how they could be used to explore the experience of aging with physical impairment. **RESULTS:** Most social theories of aging do not directly address aging with physical impairment or the cumulative experience of disability over the life course. **IMPLICATIONS:** Potential exists for social theories of aging to be applied to the experience of aging with physical impairment. To do so, physical impairment and disability must be clearly operationalized. The author suggests using social models of disability as frameworks in this process and provides examples of how this might be done with current social theories of aging.

2001

Glass, D.D., & Vandenakker, C.B. (2001). **Menopause and aging with disability.** *Physical Medicine and Rehabilitation Clinics of North America*, 12(1), 133-51.

PMID #: 11853033

ABSTRACT: Aging involves change and adaptation to change. The normal or usual changes of aging often have significantly greater impact on an individual whose disability has limited his or her physical or socioeconomic reserves. The aging process itself may be accelerated by overuse and compensatory mecha-

nisms. The changes of aging have unique features in damaged body systems that exhibit physiologic adaptations. The changes of aging therefore often result in secondary impairments, leading to secondary disability. New adaptations or repeated rehabilitation are needed to regain the equilibrium among biologic, psychosocial, and environmental influences. Disabled women do not seem to have a significantly different experience of menopause from other women, but postmenopausal changes-accelerated bone loss and increased risk of heart disease-do appear to carry greater risk in those with mobility impairment. Hormone replacement therapy has both greater potential benefit and greater potential risks. Review of these issues makes evident the great need for research in the area of aging with disability, improvement in physician and consumer education, and future health care planning.



Quick Looks

Online Resources Related to Aging with Disabilities

Ready Reference is a term used by information specialists referring to the collection of reference tools kept close at hand to answer questions from patrons. Often it includes but is not limited to: dictionaries, encyclopedias, almanacs, phone books, directories, etc. The information specialists at NARIC have gathered a collection of Web, print, and phone resources for a wide array of topics.

The following are a selection of online resources related to aging with disabilities from the NARIC Ready Reference at www.naric.com/public/ready_ref/aging.cfm.

Access America for Seniors

General information and links for seniors and elderly.

www.seniors.gov

Administration on Aging (AoA)

Regional Support Offices: www.aoa.gov/AoA-Root/About/Organization/regional.aspx
www.aoa.gov

American Association of Homes and Services for the Aging (AAHSA)

Listings of adult day services, home health, community services, senior housing, assisted living residences, continuing care retirement communities, and nursing homes.

Phone: 202/783-2242

www.aahsa.org

American Association of Retired Persons (AARP)

Information, advocacy, benefits for people over 50

Toll Free: 888/OUR-AARP (687-2277)

www.aarp.org

American Occupational Therapy Association (AOTA) –

Older Driver Rehabilitation for Consumers and Professionals: www1.aota.org/olderdriver

Find A Driving Specialist: www1.aota.org/driver_search/index.aspx

Ask Medicare from the Centers of Medicare & Medicaid Services (CMS)

Ask Medicare is a new initiative to help family caregivers, those who are family members or friends who help people with Medicare, access valuable health care information, services, and resources.

www.medicare.gov/caregivers/index.asp

Disability.gov

Disability.gov provides quick and easy access to comprehensive information about disability programs, services, laws and benefits. To find disability resources in by state just click on the “Find State and Local Resources” map located in each of these subject areas.

Toll Free: 800/333-4636 (V/TTY)

www.disability.gov

Eldercare Locator

Search for providers/resources

Toll Free: 800/677-1116

www.eldercare.gov/Eldercare/Public/Home.asp

ENURGI Clinical Caregiver Database

Enurgi is a web-based healthcare services company which connects families and patients in need with local, clinical caregivers across the country. EN-URGI allows patients, family members and caregivers to independently manage the care process through on-line scheduling, messaging, referral and direct payment transactions.

www.enurgi.com

Independent Living Centers through the RTC Rural

Research and Training Center on Disability in Rural Communities

Toll Free: 888/268-2743, 406/243-2460 (V), 406/243-4200 (TTY)

Look up by county, zip code and/or state:

County: rtc.ruralinstitute.umt.edu/geography/countydisability.asp

Zip Code: rtc.ruralinstitute.umt.edu/CIL/centers-ByZip.asp

State: rtc.ruralinstitute.umt.edu/CIL/centersShow-All.asp

Medicare.gov

All information pertaining to Medicare Centers for Medicare & Medicaid Services

Toll Free: 800/633-4227

www.medicare.gov

Medicare Rights Center

Independent source of health care information and assistance in the U.S. for people with Medicare

Phone: 212/869-3850, ext. 19

www.medicarerights.org

National Association of Area Agencies on Aging (NAAAA)

Helping older persons and persons with disabilities live with dignity and choices in their homes and

communities for as long as possible through advocacy, promotion, improvement and facilitation.

Phone: 202/296-8130

www.n4a.org

National Center on Elder Abuse

The NCEA serves as a national resource center dedicated to the prevention of elder mistreatment.

First established by the AoA in the 1992 amendments made to Title II of the Older Americans Act.

Toll Free: 800/677-1116

www.ncea.aoa.gov

Elder abuse helplines and hotlines: www.ncea.aoa.gov/NCEAroot/Main_Site/Find_Help/Help_Hotline.aspx

National Institute on Aging (NIA)

NIA is at the forefront of the Nation's research activities dedicated to understanding the nature of aging, supporting the health and well-being of older adults, and extending healthy, active years of life for more people.

Toll Free: 800/222-2225, 800/222-4225 (TTY)

www.nia.nih.gov

National Resource Center on Supported Living and Choice

The center produces a range of informational materials on community inclusion, supported living, and choice and can respond to individual questions and requests for assistance.

Toll Free: 800/894-0826, 315/443-3851 (V),

315/443-4355 (TTY)

thehp.syr.edu/nrc.html

thehp.syr.edu

National Senior Citizens Law Center (NSCLC)

Phone: 202/887-5280

www.nscle.org

Search Terms for Aging with Disabilities

-  Abstracts
-  Abuse
-  Access to Care
-  Accessibility
-  Accommodation
-  Adaptation
-  Adolescent
-  Adults
-  Age Factors
-  Aging
-  Aging with a Disability
-  Amyotrophic Lateral Sclerosis (ALS)
-  Aphasia
-  Arthritis
-  Assistive Technology
-  Attitudes toward Disabilities
-  Autistic Spectrum Disorders
-  Barriers
-  Brain Injuries
-  Caregivers
-  Cerebral Palsy
-  Chronic Disease/Illness
-  Cognitive Disabilities
-  Combined Modality Therapy
-  Communication Disabilities/Skills
-  Community Health/Living/Networks
Resources/Services
-  Comorbidity
-  Daily Living Skills
-  Dementia
-  Developmental Disabilities
-  Devices
-  Diabetes
-  Disabilities/Evaluation/Management/Studies
-  Disease Progression
-  Dissemination
-  Down Syndrome
-  Employment
-  End of Life
-  Exercise
-  Family Environment
-  Fatigue
-  Foreign Countries
-  Functional Evaluation/Limitation/Status
-  Gender/Differences

Search Terms for Aging with Disabilities continued...

- | | |
|--|---|
| 📖 Geriatric Assessment/Rehabilitation | 📖 Respite Care |
| 📖 Group Homes | 📖 Risk Assessment/Factors |
| 📖 Health Care/Facilities/Needs | 📖 Robotics |
| 📖 Health Policy/Promotion/Services | 📖 Secondary Conditions |
| 📖 Hearing Disabilities | 📖 Self-Help Devices |
| 📖 Home Care/Modifications | 📖 Sensory Disabilities |
| 📖 Housing | 📖 Service Delivery/Integration |
| 📖 Independent Living | 📖 Severity of Illness Index |
| 📖 Institutionalization | 📖 Social Adjustment/Attitudes/Environment |
| 📖 Intellectual Disability | Influences/Networks/Services/Skills/Support |
| 📖 International Rehabilitation | 📖 Spina Bifida |
| 📖 Intervention | 📖 Spinal Cord Injuries |
| 📖 Life Care Planning | 📖 Sports |
| 📖 Life Expectancy/Satisfaction | 📖 Stroke |
| 📖 Long-Term Care | 📖 Supported Employment |
| 📖 Mental Health Disabilities | 📖 Technology Transfer |
| 📖 Middle Aged | 📖 Telecommunications |
| 📖 Mobility Disabilities | 📖 Therapeutic Training |
| 📖 Motor Activity/Skills | 📖 Training/Materials/Programs |
| 📖 Multiple Sclerosis | 📖 Transition |
| 📖 Muscular Dystrophy | 📖 Transitional Programs |
| 📖 Musculoskeletal Conditions | 📖 Transportation |
| 📖 Neurological Disabilities | 📖 Treatment |
| 📖 Nursing Homes | 📖 United States |
| 📖 Older Adults/Workers | 📖 Universal Design |
| 📖 Outcome(s) Assessment | 📖 User-Computer Interface |
| 📖 Pain/Management | 📖 Veterans |
| 📖 Parkinson Disease | 📖 Video Games |
| 📖 People with Disabilities | 📖 Visual Disabilities |
| 📖 Physical Disabilities | 📖 Vocational Rehabilitation |
| 📖 Physical Fitness/Health/Medicine/Mobility
Therapy | 📖 Women's Health |
| 📖 Poliomyelitis | 📖 Young Adult |
| 📖 Prevalence | |
| 📖 Prevention | |
| 📖 Program Evaluation | |
| 📖 Psychomotor Skills | |
| 📖 Psychosocial Factors | |
| 📖 Public Policy | |
| 📖 Quality of Life | |
| 📖 Rehabilitation Research/Services/Technology | |
| 📖 Remote Service Delivery | |
| 📖 Research and Training Centers | |
| 📖 Research Methodology | |
| 📖 Residential Care/Facilities/Programs | |

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