

The Joan Wald Baken Award

- Established in 1997 to honor the memory of the devoted member of DPHD who dedicated herself to individuals with physical and health disabilities.
- Up to two awards are given annually to individuals whose accomplishments represent exemplary advocacy and educational practice.
- The recipient must be involved in direct delivery of services to individuals with physical and health disabilities in schools, hospitals, clinics, homes, or in the community.

2008 Recipient of the Joan Wald Baken Award

Dr. Muriel D. Saunders




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- **Ph.D., Developmental and Child Psychology, University of Kansas**
- **Assistant Research Professor**
University of Kansas
Life Span Institute at Parsons
- Involved in research, education, treatment, and service support of people with physical and health disabilities since 1966.


Making a Difference in the Lives of Individuals with Physical and Multiple Disabilities...

- Before entering graduate school, Muriel was employed as a research assistant on a grant to develop and test a behavioral approach to teaching speech/language to nonverbal children. She and the project were successful, resulting in several previously nonverbal children learning to talk in phrases or sentences.
- While in graduate school, she served as the first administrator of the 1st community agency in Kansas to serve adults with physical and developmental disabilities in a community-based residence, rather than in a nursing home environment. She co-authored a novel HUD application that resulted in HUD funding flowing to adults with severe intellectual and physical disabilities for the first time in Kansas. That agency is celebrating its 25th anniversary this year, and currently serves over 300 people.

- While a special education teacher, to eliminate severe self-injury by a young student, she spent 12 consecutive school days alone with him in a treatment room and ended his self-injury with entirely positive methods. She taught him that property destruction, self-injury and assault on her would not result in her attention. But, if he sat down and followed instructions, she would attend to him, interact, and reward him. He never needed this intervention again for so long as he was in her classroom
- She gave vision to a child with a significant vision impairment by teaching him to wear and not throw his glasses. It required months of training with lens-less glasses connected by elastic cord to a special vest she designed. Ultimately he learned to wear, and not break, the one pair of real glasses the state would pay for. This training was critical, as he consistently lashed out at other students or staff if they hurried him through doorways or over changes in floor/ground surfaces. Previously, he always held back and tried to check for changes in elevation (e.g., a staircase, steps) with his feet. If you hurried him, he hit you; not so, after he learned to wear the glasses.

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- She learned that one of her students was scheduled to have the tendons behind his knees severed due to contractures. He wore steel braces from foot to knee to support his attempts at walking. She asked for a reprieve that was granted. She removed his braces and taught him to walk without them and the surgery was cancelled.
 - She moved to Seattle for a year (1996-97) to assist a skilled nursing facility, serving 100 adults with profound multiple disabilities, to design and refine a program of environmental control and sensory stimulation. That program continues today and has supported her research on enabling communication in this population. Her research on this topic has received over \$1.5 million in funding from the National Institute on Child Health and Human Development.

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- Recently, an 8-year old girl was referred to her for possible participation in this research. This child had a very rare disorder and was on mechanical feeding and respiration equipment. She had no voluntary movement with her hands or feet. She had cortical vision impairment, could not communicate, and showed changes in affect or behavior only when she was physically manipulated in ways that discomforted her. Previous therapists had failed to enable her to use an adaptive switch for any purpose. After multiple assessment sessions, Muriel set her up to possibly close a switch by moving her cheek approximately one-quarter inch to the left. With this set up, she quickly learned to control taped music or stories read to her by a caregiver. Her data clearly indicated, for the first time empirically, that she was aware of her surroundings, and could learn to actively participate. Those data were timely for her parents to receive, as she died from kidney failure a few days later. Thus, the parents learned that all they had done for her over her brief lifespan was likely felt, perceived, discriminated and appreciated—finally they had an indication that this was so.

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- Muriel has consulted pro bono for community agencies in Los Angeles, Brazil and Peru who serve children and adults with physical, intellectual, and health disabilities. She has co-sponsored several graduate students and faculty from Brazil for extended exchange visits to the University of Kansas.
 - She worked evenings in a dental outreach project for adults with developmental disabilities from 2005-2007. She and a dental hygienist assessed the oral health of adults with developmental disabilities. Muriel then dispensed funds from an emergency treatment account to pay for highly needed and expensive dental treatment.

Contributions to the Field

- Muriel has co-authored one book and five chapters. She has authored or co-authored over 20 articles and presented over 60 papers at conferences such as CEC, the Association for Behavior Analysis, and the American Association on Mental Retardation (now AAIDD).
- Her best know work is shown below. She was recently honored at a conference in Baltimore for her ground-breaking work for this positive approach to classroom discipline.
- Barrish, H. H., Saunders, M., & Wolf, M. M. (1969). The good behavior game: Effects of individual contingencies for group consequences on disruptive behavior in the classroom. *Journal of Applied Behavior Analysis*, 2, 119-124. (Reprinted in other works).

Recent Research with Individuals with Multiple Disabilities

- Saunders, M.D., Questad, K.A., Kedzierski, T. L., Boase, B.C., Patterson, E.A., & Cullinan, T.B. (2001). Unprompted mechanical switch use in individuals with severe multiple disabilities: An evaluation of the effects of body position. *Journal of Developmental and Physical Disabilities*, 13, 27-39.
- Saunders, M. D., Smagner, J. P., & Saunders R. R. (2003). Improving methodological and technological analyses of adaptive switch use of individuals with profound multiple impairments. *Behavioral Interventions*, 18, 227-243
- Saunders, M.D., Timler, G., Cullinan, T.B., Pilkey, S., Questad, K.A., and Saunders, R.R. (2003). Evidence of contingency awareness in people with profound multiple impairments: Response duration versus response rate indicators. *Research in Developmental Disabilities*, 24, 231-245.
- Murphy, K. M., Saunders, M. D., Saunders, R. R., & Olswang, L. B. (2004). Effects of ambient stimuli on measures of behavioral state and microswitch use in adults with profound multiple impairments. *Research in Developmental Disabilities*, 25, 355-370.
- Mellstrom, B.P., Saunders, M.D., Saunders, R.R., & Olswang, L.B. (2005). Interaction of biobehavioral state and microswitch use in individuals with profound multiple impairments. *Journal of Developmental and Physical Disabilities*, 17, 35-53.
- Saunders, M. D., Saunders, R. R., Mulugeta, A., Henderson, K., Kedzierski, T., Hekker, B., & Wilson, S. (2005). A novel method for testing learning and preferences in people with minimal motor movement. *Research in Developmental Disabilities*, 26, 255-266.
- Saunders, R. R., & Saunders, M. D. (2005). In search of contingency learning: Something old, something new, something borrowed. . . *Behavioral Development Bulletin*, 1, 23-30.
- Saunders, R. R., McEntee, J. E., Saunders, M. D. (2005). Interaction of reinforcement schedules, a behavioral prosthesis, and work-related behavior in adults with mental retardation. *Journal of Applied Behavior Analysis*, 38, 163-176.

Funding to Improve Lives for Individuals with Multiple Disabilities

- Since 1990, with co-investigators, Muriel has received over \$2,600,000 in grant funds to find new and effective ways to enable and support individuals with multiple disabilities.
- Currently, she (with colleagues) has three years of funding from the Kansas Council on Developmental Disabilities to create supports and environmental modifications that will encourage adults with developmental disabilities, who are overweight or obese, to embrace and employ an emerging method for weight loss, referred to as “meal replacement.” With her husband, Richard, she designed a pictorial system for these adults to plan and monitor what they eat and drink, and to monitor their weight. Nearly 70 individuals have enrolled in this project and over an average of 6 months participation, are losing about 3 lbs per month. Some have lost nearly 50 lbs!
- She also has funding for 2007-2008 from Special Olympics USA. At large Special Olympics events, volunteer professionals provide Healthy Athlete® screenings—screening for oral health, vision, hearing, and so forth. Muriel’s funding is to follow 450 participants at 2007 games in the US and Peru to determine, 3-6 months later, how the screenings impacted them, health-wise and behavior-wise. This evening, her Peruvian student employees from KU are again calling a rural community south of Lima.

Technology Advancements for Individuals with Multiple Disabilities

- In the '90s, she designed a data collection system using bar code scanners. With a programmer, she developed an observation and data analysis system that enabled real-time recording of serious destructive behaviors by students with developmental disabilities.
- In the early 2000s, she worked with colleagues in Seattle and in the Scientific Instruments Department at the University of Washington to develop and produce an interface for adaptive switches. The interface is significant in that it allows people who have only one voluntary motor movement to choose between two adaptive switch outcomes with that single movement.
- Recently, with her husband, she has worked with the Instrumentation Design Laboratory at KU to design and develop an adaptive switch that does not require "touch." The individual can control music and other sounds by moving an appendage or themselves in and out of an invisible ultrasound beam. Currently, the project is working to allow the beams to work wirelessly with Bluetooth technology.

Other Notable Accomplishments

- She was Kansas' Special Education Teacher of the Year in 1990 and was selected as the 1991 Clarissa Hug Teacher of the Year by the Federation of the Council for Exceptional Children.
- “Muriel’s greatest skill: She can watch students in her classroom or another teacher’s classroom and “see” behavior-outcome relationships that most of us would miss. She can quickly translate what she sees into new teaching methods, positive behavior supports, or environmental adaptations that move the student forward in giant steps!”

...and she is a proud grandmother...



Her other babies...



Thank you,
Dr. Muriel D. Saunders,
for making a difference in the
lives of people with multiple
disabilities!



Let's Celebrate!

