

iLs Research Summary 2017

A Pilot Study of Integrated Listening Systems for Children with Sensory Processing Problems

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Summary: This study explores the effects of iLs on individualized parent goals for children with sensory processing impairments. The 40-session iLs program was implemented at home and in clinic over a 3-month period. Important and clinically meaningful gains were achieved by all participants in both home and educationally-related goals. Individualized goal achievement was supported by gains in standardized measures of behavior and adaptive functioning. Changes in physiological arousal (measured by EDA – electrodermal activity) suggest the iLs program is impacting underlying regulation mechanisms that may be contributing to the observed behavioral changes. Behavioral changes included increased relaxation, fewer meltdowns and a generally calmer disposition for participants whose arousal decreased.

Effectiveness of Two Non-Pharmacological Interventions for People Who Experience Disordered Sleep but do not have a Medical Problem Causing the Sleep Disturbance

Sharon A. Gutman, PhD, OTR, FAOTA, Associate Professor, Columbia University Medical Center

Summary: The Columbia University Medical Center study has compared the effectiveness of the Dreampad™ and the iRest yoga meditation method in a 2-week intervention period with healthy adults ages 25-65.

Status: The study is in its final stages and will be submitted for publication later this year.

K-2 Literacy Study

J. Anne Calhoun, Ph. D. Educational Psychology, University of New Mexico

Abstract: A controlled study involving 64 K-2 at risk students was conducted by U of New Mexico researcher Anne Calhoun, Ph.D. Students participated in the Alpha Program,* a program combining iLs with art therapy. The average improvement in reading over the 3-month intervention was 2 years.

An Investigation to Evaluate the Benefits of the Integrated Listening Systems (iLs) in Primary/Early Elementary Classrooms (K-3): The Case of Valley View Academy in Northern California

Jeannie Dubitsky, Ed. D., University of California, Davis

Abstract: Ten students were measured over an academic year of using iLs while at school. Students showed improvement in all areas evaluated – physical, academic, social and emotional development – after experiencing the iLs program.

iLs Home Program Autism Study

Theresa May Benson, PhD, OTR/L

Abstract: Study on the effect of the iLs home program on 18 children diagnosed with autism. The purpose of this multi-site intervention study was to examine the effectiveness of the iLs Focus home program with 18 children 4 to 8 years of age with Autism Spectrum Disorder (ASD). Results found significant gains across multiple subjective and objective outcome measures in areas of social skills and emotional regulation, number and severity of autistic behaviors, and overall functional adaptive behavior skills.

Survey of iLs Professionals

Spiral Foundation, Boston, MA

Summary: Survey reviewing therapists' experience using iLs with over 1300 children on the autism spectrum; results are in 24 outcome categories.

Auditory Processing Disorder

Julia Harper, PhD, OTR/L and Aimee Levine Weiner, Aud; published in Advance OT Magazine

Abstract: Therapeeds, a private clinic in Ft. Lauderdale, Florida, reports the results of 29 children diagnosed with APD who completed the Therapeeds' H.O.P.E. sensory motor program combined with iLs. Among the pre- and post-program tests are the following:

Vestibular: Pre-testing indicated 0 of the 29 children had intact vestibular processing skills measured by the PrN and functional skills. Post-testing showed all 29 in normal range.

All Auditory Processing Skills: Post-intervention, 22 of the 29 children had auditory processing skills that were completely within normal limits *in every area*.

Medications: Seven of 29 children began this therapy on medication for attention-related concerns. By the end of the program, the medications for all 7 had all been discontinued.

ABR Binaural Summation: Pre-intervention ABR tests showed all 29 children had little difference between listening with one ear and listening with both ears (binaural summation).

Post-intervention, all 29 tested in the normal range.

School Pilot Study

Denver Area Schools

Abstract: A variety of normed, standardized tests were used to assess 20 children with learning difficulties before and after iLs programs. The report includes each child's pre- and post-program test scores as well as teacher and parent comments. Teachers involved in the program reported "significant improvement" in 19 of the 20 children. The criteria for "significant improvement" includes at least one of the following: being transitioned from special education to regular education, having an IEP removed or overcoming a substantial behavioral challenge. escription: Data on the efficacy of iLs in school programs.

A Sleep Intervention for Children with Autism

Sarah Schoen, PhD, OTR, Assistant Research Director, SPD Foundation

Abstract: The aim of this study was to examine the immediate, short-term effects of Integrated Listening Systems' (iLs) Dreampad on the sleep behaviors of children with Autism Spectrum Disorder (ASD). In addition, this study examined the effects of changes in sleep patterns on parent and family measures of stress and quality of life.

Status: published in The Open Journal of Occupational Therapy.

iLs Dreampad Heart Rate Variability (HRV) Study

Kelly L. Olson, Ph.D., Director, Clinical Research and Development, SleepImage

Abstract: This study measures the effect of the Dreampad on relaxation using heart rate variability (HRV); HRV is widely considered the most authoritative reference for the Parasympathetic Nervous System, which governs our relaxation response.

Measuring the Effect of the iLs Dreampad with Ten Veterans Diagnosed with Post-Traumatic Stress Disorder (PTSD)

Jan C. Nelson, OTR, MA

Abstract: Study conducted with 10 veterans suffering from PTSD. Each participant recorded their sleep habits and pain symptoms for two weeks prior to using the Dreampad and two weeks while using the Dreampad. Their journals included usage, sleep habits and other comments. Study participants were interviewed after initial Dreampad use and again three months later.

Cochlear Implant Study

Ann Brownstone, MS, OTR/L, SWC, Jennifer Aguilar, MS, CCC-SLP, Lisa Marcacci, MS, Aud.

Abstract: This study was conducted at the Jean Weingarten Peninsula Oral School for the Deaf, Redwood City, CA by Ann Brownstone, MS, OTR/L, SWC, Jennifer Aguilar, MS, CCC-SLP, and Lisa Marcacci, MS, Aud. It examines the application of iLs with children wearing cochlear implants and also provides a general reference guide for using iLs in conjunction with cochlear implants and other hearing devices.