Susanne Smith Roley

Susanne tells her story about what has inspired her outstanding career

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An article review (Roley et al. 2015)

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Letter from the Editors

Welcome to the latest edition of SensorNet.

SensorNet continues to grow an international readership and we are excited about ways to increase collaboration and information sharing with therapists and parents all over the world.

In this edition, we celebrate Susanne Smith Roley’s enormous contribution to Sensory Integration Practice. Read about her inspiring journey as an occupational therapist as she writes about her career over the past 30 years. Roelien Janse van Rensburg reviews the recent Roley et al. (2015) article titled ‘Sensory Integration and Praxis Patterns in Children with Autism’ which highlights the impact of somatopraxis and vestibular function on social participation.

Dr Zoe Mailloux, Chair of the Scientific Committee and Keynote Speaker at ESIC 2015, tells us why the 4th European Sensory Integration Congress conference in September should not be missed. Gemma Cartwright, Director of Researcher Development, provides the usual Research Update and reports on a Weighted Blanket audit undertaken by Coventry’s Children and Young People’s Occupational Therapy Service.

In addition, Clare Omoyele sets out how sensory integration has helped a young client in his teens and includes his parents’ feedback on how this intervention has helped them understand his difficulties and adjust accordingly.

Kath Smith, Director of Learning and Development, provides an update from the National Autistic Society Conference in Harrogate and Sue Allen, past Chair, writes a book review on “I’ll tell you why I can’t wear these clothes – talking about tactile defensiveness” by Noreen O’Sullivan.

Whether you are a parent, service user or therapist we are interested to hear how sensory interventions, in particular Ayres’ Sensory Integration Intervention has impacted on your life. Follow the links included in this edition for information on how you can contribute reviews and articles for inclusion in SensorNet. You’ll also find the links and information on how you can contribute stories for the upcoming European Sensory Integration Congress in September 2015.

Finally but very importantly, please do read Rosalind’s Chair’s letter for recent decisions and steps taken by the Network following the publication of the COT professional practice briefing on Sensory Integration.

Warm Wishes,

Jacci Siebert
Editor, SensorNet

Gina Daly
Deputy Editor, SensorNet

Find us on Twitter Find us on Facebook Find us on Pintrest
– Do you have interesting work or research related to sensory processing that you would like to submit for publication in SensorNet?

– Do you have a personal story as an adult with or a parent of a child with sensory processing difficulties?

– Do you have an update from a regional or special interest group?

“Yes” you say?

Please follow the link to an online article submission form:

jacci@sensornet.com

gina@sensornet.com

www.sensornet.com/signup

SensorNet wants your contribution and we can offer editorial support if you need it!

Case Study?
Research?
Clinical practice?
Special interest group update?
Personal story?
Welcome to my Spring letter. As I write this in the early dawn light, I am looking out of my window. Our neighbour has brought ewes and their recently born lambs to cavort in the field next to our farmhouse – there is such delight in watching these young lambs play around. As some of you may know, I live in rural County Down, a beautiful, coastal county in the south east of Northern Ireland. The part I live in is a gentle, green area of drumlins – small overlapping rounded hills, the result of glaciated ground-up rock molded into this ‘basket of eggs’ landscape thousands of years ago. The grass is great for sheep and cattle and around where I live, the area is well known for early Comber potatoes, Strangford Lough seafood and Finnebrogue venison. A rural idyll forty minutes from the heart of Belfast!

This is all a far cry from the ambient noise of the hotel near Heathrow where we, as Directors of the Board of Sensory Integration Network, meet regularly for Board meetings. When working alone in the hotel, I am at my most productive with my latest acquisition – a pair of noise-cancelling headphones! I have been hooked by the incredible technology that actively dampens out sound in the environment – I do not even play music through them but just bask in the aura of peaceful quiet contemplation that I exude when headphoned-up! Well, I like to think that anyway … our foster son claims it makes me look even more nerdy. Alan, my most tolerant of husbands, says that there is no difference – I always have selective attention!

As we continue on our accelerated learning curve of parenting our darling foster son – one year on and still each day is different. Currently we are battling the addictions of Minecraft. If you have no idea what I am talking about, consider yourselves very lucky. I preferred my previous state of delightful ignorance, unaware of the subversive threat to family peace lurking behind what appeared to be a creative 3D online lego game. I used to watch with a Mona Lisa smile at my own little ‘house on the prairie’ scene where our foster son had invited my husband into his creative world and they would play happily together, side by side on the sofa, each on ‘tablets’ (the electronic kind as ADHD medicine is now removed and all is well). A snapshot of 2015 male bonding!

Little did I know that several months later we would be embroiled in ‘world peace’ level diplomacy as we seek to manage a regime where he (son) can only play the ‘kill or be killed’ survival version of Minecraft with other
online players, for an hour a day, which he has to 'earn' through school work or outside activity. The ‘rules’ are tested and pushed to the limits with new variations of these ‘rules’ emerging weekly. Skills being developed are high level negotiation (son), anger management and self control (husband) and acting skills to model Zen Master (Me).

However, I was unaware that these challenging experiences at home would stand me in good stead these last ten days as Chair of the Sensory Integration Network Board with the emergence of the UK professional body for Occupational Therapists (OTs), British Association of Occupational Therapists/College of Occupational Therapists’ (COT) Professional Briefing document on ‘Sensory Integration’.

As Board members, we are deeply concerned. We also have been in receipt of messages from you as members, mirroring our own thoughts and actions. We have been taken aback at the process, or lack of it, around the development and production of this public document.

There is frustration that such a briefing could develop in a vacuum. There has been no active engagement with either the COT specialist section of Children Young People and Families’ community of 700-strong OTs, or external consultation with our organisation, which has as part of its membership, 1344 Occupational Therapists. It is not as if COT was not aware of our existence as a credible organisation, given our leadership in winning the debate on Sensory Integration at last year’s COT Conference?

As a past Chair of a sister professional body, the Royal College of Speech and Language Therapists, I have been trying to understand the internal governance for this so-named Practice Briefing paper. It appears that it does not lie with one COT Council member (Trustee) but rather with an external reference group, which is the same group for all Practice Briefing papers from any of the eleven specialist sections’ briefings. This COT-led external reference group did not see the need to consult with us – despite our clear engagement with Sensory Integration practice, with world-wide links, collaborations and perspectives in this area.

Moving on from the process of the publication’s development, we are disturbed at the way in which it can be interpreted as quasi-commissioning guidance. This content displays a shameful disregard for the OT services who use the principles of sensory integration with their clients, whose lives are then transformed by Ayres-SI sensory integration therapy.

Issues of factual inaccuracy, misinterpretation and misdirection, combined with an unusual degree of subjective phrasing, are deeply worrying. So what are we doing about it?

We are strongly requesting, in a written letter to COT, that the Briefing is withdrawn. A copy is available at:

We are publicly stating our willingness as a community of Sensory Integration practitioners, researchers, and families/service users, to work with COT to produce guidance that is:

• Factual
• Current
• Unbiased
• Meaningful and crosses the life span

We encourage members to write to COT to express their own thoughts and opinions.

We will update you of any changes or action taken through our website and social media portals.

The 4th European Congress of Sensory Integration, 10-12th September in Birmingham is a great place to continue this conversation. Those of you who attend will have the privilege
of hearing the most eminent researchers in the world-wide community present current research and listening to expert clinical researchers translate cutting-edge theory into clinical actions. As hosts and holding the leadership of the Congress Organising Committee, we have also planned related events around the Congress.

It is very timely that we have appointed a Strategic Research Director to the Board, Dr. Joanne Ross. Joanne’s portfolio will complement the portfolio of Gemma Cartwright, Director of Researcher-Development, growing researchers and supporting research dissemination.

In support of that goal, I am delighted to let you know that the widely anticipated book of Roseann Schaaf and Zoe Mailloux has just been launched in April at the American Occupational Therapists Association’s Conference. It is entitled ‘A Clinician’s Guide for implementing Ayres Sensory Integration – Promoting Participation for Children with Autism’. As stated by the publishers, ‘It is a step-by-step guide covering data driven decision making and manualisation of ASI therapy.’ The Guide is based on the intervention procedures used in Roseann, Zoe and colleagues’ high impact publication about their RCT (Random Control Trial). Roseann and Zoe will be presenting a one day pre-conference workshop as an introduction to their guide on Thursday 10th September, the day before our ESIC two day conference.

In conclusion, and returning to the Irish theme with which I indulgently opened this letter, on behalf of the SI Network UK and Ireland I wish to congratulate The Association of Occupational Therapists of Ireland on an excellent Annual Conference 2015 while celebrating ‘50 Years-a-growing’ – the AOTI’s 50th Anniversary.

Mandy Adamson, Vice Chair, Greg Kelly, Course Director Ulster University, Gina Daly, Deputy Editor of SensorNet and Sarika Kaushik, Conference and Event Team Member, represented us and were delighted to meet with our members and friends old and new. We will feature content related to Ireland in the summer edition of SensorNet – so Irish colleagues, send us pieces of interest!

Meanwhile, back to contemplating the lambs!

Rosalind Rogers
SI Network Chairperson
An Interview with Susanne Smith Roley

For most of us in the Sensory Integration world, Susanne Smith Roley needs no introductions!

by Mandy Adamson and Kath Smith

With over 30 years of occupational therapy experience in Paediatrics she obtained her Bachelor of Science in Occupational Therapy at Indiana University, her Masters in Allied Health Sciences at Boston University and her OT Doctorate at the University of Southern California (USC). Susanne is in private practice in Orange County in Southern California and is co-founder of the Collaborative for Leadership in Ayres Sensory Integration (CLASI). Susanne was on the original faculty of the Center for the Study of Sensory Integrative Dysfunction (CSSID) started by Dr. Ayres, subsequently known as Sensory Integration International (SII). Furthermore, she was a course originator of the Sensory Integration Certification Program sponsored by USC/WPS and its Program Director for 14 years through the University of Southern California Division of Occupational Science and Occupational Therapy. She is a past chair of the Commission on Practice and the Sensory Integration Special Interest Section for AOTA; and a contributing author of the Occupational Therapy Practice Framework: Domain and Process, 2002 and 2nd Edition. In addition, Susanne is an internationally recognized author and lecturer on the theory and application of sensory integration. She is co-editor of numerous chapters, articles, and the books, Understanding the Nature of Sensory Integration with Diverse Populations and Sensory Integration: Applying Clinical Reasoning to Diverse Populations. She is a fellow of the AOTA and recipient of the AOTF Virginia Scardina Award of Excellence and the AOTF A. Jean Ayres Award.

Facilitated by interview questions from Kath Smith and Mandy Adamson, Sensory Integration Network Directors, Susanne writes about her journey as an occupational therapist (OT)...

I became an OT somewhat by accident. I wanted to work in health care, but not as a nurse, like my mother. I needed to declare my major so I looked in the catalogue and saw the description of OT that included working in mental health and arts and crafts and thought that might be fun. And it has been. OT has far surpassed my expectations as a profession. I have been fortunate to have met some of my favourite people through OT. Every day I am thankful that I work in a field whose core value is to support families in ways that makes their lives more worth living.

Once in school, I was confused why our class was exclusively female and even more so about what OT was. I knew pieces about OT such as various types of intervention, but it was hard to grasp the intent of the profession. Later, when I joined the Commission on Practice for AOTA and had the privilege to work on the Occupational Therapy Practice Framework, I felt that we had written a document that would help students and the public to better understand OT in a nutshell, encapsulating the focus (domain) and the pathway (process) of OT.
During my student practicums, I was not at all impressed by what appeared to be reductionistic exercises such as cone stacking used in the rehab facilities. I’m sure my student eyes did not grasp the whole picture, but that was not for me. I truly enjoyed neuroanatomy and the love of this subject and my dear friend, Carolyn Updike Dehner, kept me in the program along with the emerging work in understanding the sensory contributions to human function. It was my second 3-month field work placement that changed my life. I heard about a woman, Ginny Scardina, who took students in a nontraditional area of school-based pediatric practice to learn a new theory and practice called sensory integration. Carolyn and I were lucky enough to be able to join her and I was hooked right from the start.

Ginny was a remarkable mentor and articles have been written about her exceptional ability to support so many people in SI and OT. She had a remarkable program with numerous lectures, problem solving sessions, and direct interventions wherever she could find space in the schools where we were placed. She took us along when she advocated for OT during the first PL94142 hearings that resulted in public funding for special education services including OT. We continue to advocate for these services and the third revision of an official AOTA document on Using Sensory Integration in School-Based Practice will be published later this year. Ginny brought us to conferences with her and introduced us to leaders in the field such as Wilma West and Dr. A. Jean Ayres. We were star-struck but they were always gracious and gave the impression that we were the future of OT and there was a lot to learn and do. Cognizant that I’m in the last third of my career, I now look at the younger OTs, such as my daughter Aja, in the same light.

I wasn’t the only one who had found Ginny. I was there with many bright therapists that went on to make huge contributions including Jane Koomar, Mary Schneider, Charlotte Brasic – Royeen, Shelly Lane, Joan Dostal, and many others. We learned from each other, embedding the importance of peer-mentorship in my understanding of professional development. The ideas that were generated by those interactions through the years seeded projects, publications, and other collaborative efforts, things we were not likely to do on our own, but could do as a group along with other trusted colleagues.

A couple of years after I graduated, I returned to work in the public schools and continued to be mentored by Ginny. We were pioneers in this area and since the administrators really didn’t know what OT did, we created our own service delivery models that included consultation, environmental modifications, and direct service and the children improved in amazing ways. Ginny, during that time, was elected as the first chair of the Sensory Integration Special Interest Section for AOTA. We then learned more about national volunteer efforts and the need to be politically and socially active not only in our local communities but at the national level. While she supported SI training outside of OT, she felt that SI was best housed within the OT profession. We have continued to promote SI for OT and in the last several years have experienced far more support by AOTA through Dr. Clark’s blog, the Guidelines for SI, and three special issues of AJOT on SI.

I became faculty for the Center for the Study of Sensory Integration (CSSID) in 1977. It was an amazing honor however I did not yet have an advanced degree. I obtained my Master’s degree in Allied Health Sciences at Boston University with Sharon Cermak as my thesis advisor and was able to work with Anita Bundy in their clinic. At the end of these studies I moved to California to study with Dr. Ayres in the OT610 training program. While in Southern
California, I met a whole new set of amazing professionals including Zoe Mailloux, Shay McAtee, Gina Coleman, Florence Clark, and Diane Parham who were affiliated with the Ayres Clinic and USC. Dr. Ayres was working on the SIPT at that time and I was able to contribute to the pilot data collection and a validity study. Interestingly, once my three children were in college I was able to continue my studies and obtained my OTD in occupational therapy at USC again with Sharon Cermak as my advisor.

I was convinced to stay by the weather and the lifestyle, stayed and raised my family with no plans to leave. Building on Dr. Ayres’ work has been the focus of my whole career. My work experience was primarily in school-based practice and in pediatric private clinics with a focus on SI. My speciality in SI was particularly helpful with special populations such as visual impairment and blindness, high risk infants, and autism. We have seen those low incidence populations seem to diminish while ASD has exploded into a world-wide epidemic. I took the job as the Education Director of Sensory Integration International (previously CSSID) for a couple of years prior to originating and directing the Sensory Integration Certification Program through USC/WPS, which I did for 14 years. I share my time between my private practice evaluating children and adults and teaching. We are beginning the Collaborative for Leadership in Sensory Integration (CLASI) and working toward the Ayres Sensory Integration 2020 Vision that includes assessment development, proliferation of education programs in sensory integration and research.

I am grateful that there are so many people who now know about the contribution of sensation to participation. We have come a long way since Dr. Ayres and Ginny were alive. We have a long way to go to perfect our methods of assessment and intervention to have the most cost-effective impact from our services. We need more ways to educate families and professionals about sensory integration and praxis. Everywhere we go around the world there are bright young therapists willing and able to continue this work and grow the knowledge that makes lives just a little easier.

Susanne Smith Roley, January 2015
An Article Review on “Sensory Integration and Praxis Patterns in Children With Autism”

by Roelien Janse van Rensburg

The widespread recognition of atypical sensory modulation among people with Autism Spectrum Disorder (ASD) has led to its inclusion as a diagnostic feature in the Diagnostic and Statistical Manual of Mental Disorders, 5th edition. Atypical sensory modulation has been linked to dysfunction in regulatory functions such as arousal, attention, affect and activity level, which in turn may lead to extreme behavioural difficulties that interfere with social participation. The authors of this study set out to find out if, in addition to sensory modulation difficulties, SI patterns such as visiopraxis, somatopraxis, and vestibular-postural-bilateral functions and praxis on verbal command may also have an effect on the social participation of children with autism.

Currently dyspraxia is not viewed as a diagnostic feature of ASD, although a growing body of evidence suggests that significant difficulties with praxis are evident among the ASD population and may even be a core feature of autism. In a retrospective study, existing data consisting of Sensory Integration and Praxis Test (SIPT) and Sensory Processing Measure (SPM) scores from 89 children ages 4-11 were used to describe SI and praxis patterns. Correlation coefficients were used to discern relationships between SI and praxis scores and the association of these scores with Social Participation Scores on the SPM.

The results indicate that difficulties with imitation praxis, vestibular bilateral functions, somatosensory perception and sensory reactivity were characteristic in children with ASD. Visual perception and visual construction were identified as areas of strength. Strong correlations were found between somatopraxis and social participation. This finding suggests that social participation is more strongly associated with somatodyspraxia than with sensory modulation. Difficulties...
with somatodyspraxia interfere with initiation, planning, sequencing and building repertoires of action plans, all of which are essential for accomplishing multi-step daily routines and building a foundation for imitation and social skills. Deficiency in these functions will have strong negative effects on day-to-day functioning at home and school. Social participation at school was strongly associated with imitation praxis and vestibular bilateral functions, whereas social participation at home was primarily associated with imitation praxis, and to a lesser degree to vestibular bilateral functions. A surprise finding was that praxis on verbal command, which is considered to be an area of weakness in the ASD population due to the language component, showed lower correlation to social participation than imitation praxis.

Limitations of this study are that, although most of the subjects received ASD diagnoses from a medical professional, no independent verification of the diagnoses were available; 14 children aged 9-11 were included in the study and their performance was scored using normative data for children aged 8 years and 11 months which is the oldest age group for which the SIPT data was standardised; only a subset of children (n=25) who had completed the SIPT also had data from both the SPM Home and Main Classroom forms.

The authors concluded that children with ASD show deficits in somatoprasis and vestibular functions which may not be overtly apparent without standardised testing of SI and praxis. This appears to greatly affect the way they choose to interact with people and objects in their environment.

Stories about why Sensory Integration Learning is Life Changing for all...

This is your chance to tell others about Sensory Integration and the difference it can make to everyday life!

We are delighted to offer you the opportunity to contribute your own story, or if you are a therapist you can submit a case study. These stories will help us showcase the difference Sensory Integration can make to people’s everyday lives.

Stories will be reviewed and considered for selection from now until the deadline of 1st June 2015. Submissions can include single design case studies already submitted for poster and paper presentation for the Scientific Programme.

Submissions are welcome from all; therapists, teachers, carers, service users young and old and parents or carers.

Your story can be anonymous or not; choose yourself a different name to tell the story. Your submission however must use your real name, but these details will be kept confidential. Your submission can include your own photographs, but these are not essential. They will help to tell the story.

Please complete the consent form for use of your own photos within your story. The main focus is that it is your own story, however you choose to tell it. You can even ask your SI therapist to add a few comments too.

All accepted stories may be published as part of ESIC 2015 and related publications including via a video screen during the congress, before, after and between workshops and presentations.

If you have any questions or problems concerning the content of your submission, please contact us.

We look forward to receiving stories from across the lifespan that reflect different populations and the ESIC themes.

Closing date for submissions is 1st June 2015.

Authors of successful submissions will be named, in the way you choose, within the ESIC Scientific Programme and as a contributor on all media and materials produced.

Good Luck!

ESIC 2015 Team
Join the future of SI at ESIC 2015

This September the SI Network (UK & Ireland) is honoured to be hosting the 4th European Sensory Integration Congress in Birmingham. Researchers, scientists and professionals are invited to book places now for what will be three days of life changing learning on 10-12 September 2015. The congress offers a unique forum to share research results and knowledge of Ayres Sensory Integration. The theme of ESIC 2015 is Sensory Integration across the Lifespan: the Art and Science and one of the focal points will be the development Ayres SI 2020 Vision.

Highlights of the ESIC 2015 programme will include an opening address on ASI 2020 from Dr Zoe Mailloux and a Keynote speech from Dr Roseann Schaaf “SI and Autism – Planning for the Journey to 2020”.

Chair of the Scientific Committee and Keynote Speaker at ESIC 2015 is the internationally recognised SI expert Dr Zoe Mailloux OTD, OTR/L, FAOTA. One of Dr. A. Jean Ayres’ research assistants, Zoe is based in Redondo Beach, California, USA, and is currently on the faculty of the Thomas Jefferson University Occupational Therapy OTD and Advanced Practice Certificate in Autism. She is also the main inspiration behind the ASI 2020 Vision plan, which will be developed over the course of three meetings to be held at ESIC 2015. Here she tells SensorNET why September’s congress is not to be missed:

**Why should delegates book now for ESIC 2015?**

For me ESIC is truly a one-of-a-kind professional event. It is rare to have the opportunity to learn so much, to meet so many like-minded and impressive people and to have so much fun all at the same time.

**What are you hoping ESIC 2015 will achieve?**

I see this year’s congress as having two goals: one is to continue to promote awareness of the important sensory integration research that is being conducted around the world. Another goal is to bring together the internationally based established and emerging leaders in sensory integration.

**Tell us more about the planning meetings for Ayres Sensory Integration 2020?**

2020 would have been Dr. A. Jean Ayres’ 100 birthday and ASI 2020 vision has been created to celebrate and develop her legacy in the Twenty First Century. Continued planning of the ASI 2020 Vision is an important centerpiece for ESIC. ASI 2020 Vision was ‘born’ at ESIC 2014 so the first birthday at ESIC 2015 marks an amazing year of growth -with much more to come.

**Are these meetings open to all delegates?**

Yes, of course! In fact one of the unstated goals of the ASI 2020 Vision is to mentor leaders of the future. We need the experienced therapists experience and wisdom, but we also need the energy and commitment of new therapists who will carry this torch in the decades to come.

**It sounds as though you are going to be very busy! Do you get a chance to relax and have fun at congress?**

I do not think anyone ever worries about me having enough fun! I love my work, so it never feels like a burden. Spending time with friends and colleagues at events like ESIC are often among the highlights of my year.

Which aspects of ESIC are you looking forward to the most?

The combination of fun, laughter and camaraderie alongside the impressive array of research and planning for future professional endeavours are the ingredients that make me look forward to ESIC. I know the experience will be priceless.
Sponsors

SI Network (UK & Ireland) is proud to have secured sponsorship for ESIC 2015 from SI equipment specialists Southpaw and ROMPA. SensorNET has been learning a little more about both companies and what they have to offer at September’s congress:

For more than 35 years, Southpaw has worked closely with therapeutic professionals to research, develop and manufacture sensory integration and neurodevelopmental products for the classroom, clinic and home.

Robert Cooke is Southpaw’s Chief Executive in Europe. He says:

“We are proud to be endorsed by the Sensory Integration Network and we will continually strive to bring innovation and excellence to support to the network’s members success.”

“Our new-look 2015/2016 product catalogue reflects our fully functional UK/European Sales and Distribution channel. The products that we have spent the last 37 years developing, with you, have the same Southpaw quality that you have come to expect, guaranteed to last and proudly manufactured by us in the USA.”

“Our Creative Director Gemma Cooke and I will be at ESIC 2015, showcasing the Virco Zuma range of chairs, distributed exclusively by Southpaw UK in Europe. We are looking forward to seeing you there.”

Over 30 years ago ROMPA sensory tools were created to improve the quality of life for all, regardless of age, gender or ability.

Dan Casey is the Marketing Manager for ROMPA. He says:

“We are delighted to be involved in such a prestigious event and we are really excited to meet new SI practitioners at ESIC 2015. We are excited to have recently introduced Theragym a more cost effective brand packed with features that our customers have been asking for.”

“We are very proud of our new Sleep Tight Weighted Blanket, which helps clients to become calm and comfortable to encourage restful sleep. It features a curved neck cut-out to help prevent the blanket from bunching around the face.

“Tania Holmes, our Product Assistant (and qualified OT), Mark Johns the Commercial Manager and myself look forward to seeing you in Birmingham!”
Book one of the following workshops on 10 September 2015 and save £30

**Assessment and Evaluation of Sensory Integration – Under 5 and Over**
Dr Diane Parham, Ph.D., OTR/L, FAOTA
– more information

**Introduction to Ayres SI Guidebook for Children with Autism**
Professor Roseann C. Schaaf, PhD, OTR/L, FAOTA
Dr Zoe Mailloux, OTD, OTR/L, FAOTA
– more information

**Sensory Processing and Developmental Trauma: Assessment through Intervention**
Tina Champagne, OTD, OTR/L, CCAP

**ESIC Provisional Programme Plan Day 1**
9.30 Welcome: Rosalind Rogers Chair SI Network
9.50 Opening address ASI 2020: Zoe Mailloux
10.30 Keynote: Dr Roseann Schaaf – SI and Autism – Planning for the Journey to 2020
11.15 Break
11.30 Room 1 paper x 3 Room 2 paper (x 3) Room 3 workshop 1
12.30 Lunch 1 and Exhibitors or EASI open session
1.30 EASI open session or Lunch 2 and Exhibitors
2.30 Room 1 workshop Room 2 paper x 3 Room 3 paper x 3
3.30 Break and Poster Session
4.15 Challenges for the Future
7.00 Conference Dinner
This NEW swing was developed to offer improved bilateral support for clients who enjoyed the Platform Swing, but needed additional support due to limited core strength or balance. The result has created a comfortable and beautiful looking swing which can be used in a wide range of vestibular activities.

The U-Boat Swing

THE U-BOAT SWING can be used by clients while sitting, prone or even on their backs. The large dimensions of the U-Boat make it suitable to hold several toddlers or pre-schoolers simultaneously, encouraging socialization and cooperative play.

It is manufactured to the highest quality, using Baltic Birch and comes complete with safety snaps and a comfortable carpet interior. The sturdy design also makes it possible to hold older children or adults as well.

THE MINI U-BOAT SWING is perfect for smaller clients to use while sitting and gives a good level of support due to the curved shape.
Weighted blankets…. how can they help?

by Gemma Cartwright

In 1992, Temple Grandin discussed the calming effects of deep touch pressure, and following on from this in 1999, a study investigated the effects of deep pressure on arousal and anxiety reduction by using Grandin’s Hug Machine (Edelson et al. 1999). The findings of this study supported Ayres’ (1979) original hypothesis that deep pressure may have a calming effect for persons with Autistic Spectrum Disorder (ASD) especially those with high levels of arousal or anxiety. Weighted blankets are being increasingly used in acute mental health care settings and have been found to provide feelings of safety, relaxation and comfort (Mullen, Champagne & Krishnamurthy, 2008). However, a recent Randomised Control Trial (Gringras et al. 2014) has concluded that the use of weighted blankets within the study did not help children with ASD to sleep for a longer period of time, fall asleep significantly faster or wake less often. Interestingly the blankets were favoured by the parents and children, possibly suggesting there were some positive effects from their use.

Coventry’s Children and Young People’s Occupational Therapy (OT) service are fortunate to be able to provide weighted blankets to support children identified with challenges in their sensory integration and sleep patterns. All children provided with a blanket are assessed using a standardised measure such as the Sensory Processing Measure (Parham, 2007) or the Sensory Profile/Short Sensory Profile (Dunn, 1999). An interview is also completed with the child and their caregiver/parents regarding their sleep patterns. Weighted blankets are recommended if a child is presenting with difficulties in getting to sleep and/or staying asleep and have particular challenges in their sensory integration.

The particular sensory challenges are those proposed to be linked with sleep difficulties. Research studies have suggested Sensory Over Responsivity and the associated increase in arousal levels influence a child’s ability to self-regulate therefore influencing their sleep (DeGangi, 2000). Studies have also found tactile hypersensitivity to be a predictor of global sleep scores indicative of sleep disorders (Shochat, Tzischinsky & Engel-Yeger, 2009) and hypersensitivities in multiple sensory modalities have been correlated with particular sleep patterns (Shani-Adir et al. 2009). Wengel, Hanlon-Dearmand and Fjeldsted (2011) found significant...
correlations between sleep onset delay and increased sensory seeking behaviours and differences in registration of sensory information.

When provided with a blanket, parents/caregivers are given written guidelines for its use based on those published by College of Occupational Therapists. They are also required to sign an equipment issue form to confirm they understand and agree to follow the guidelines and that the equipment will be reviewed.

A survey was conducted in order to gather evidence for the ongoing provision of weighted blankets. The survey was sent to all families who were provided with a blanket within a 12 month period. 68 surveys were sent, with 18 completed and returned. The ages of the children provided with weighted blankets ranged from 4-12 years of age. No demographic or diagnostic information was requested. The survey asked participants to highlight what the child’s sleep difficulties were from the following list: delayed sleep onset, co-sleeping, waking in the night or sleep duration (waking early). They were asked if they believed the blanket had reduced the reported sleep problem. In addition, the participants were asked to detail any additional perceived benefits of the blanket as well as any difficulties/limitations in its use. The results are presented in the charts shown here.

The additional information reported by the participants included the following themes.

- Calming effect
- Relaxation
- Self-regulation strategy
- Helps for watching TV/DVDs with the family.
- Reduces fidgeting
- Improved sleep has led to improved quality of life and engagement in school work
- Reduction in restlessness during the night
- Used when feeling angry or anxious
- Helped the entire family
- Gives them comfort
- Criticism of weighted blankets
- Design, colour not child friendly
- Makes the child hot in the summertime
- Not machine washable

Conclusion
The return rate for the survey was low which may have created a positive bias to the results.
However, the results show that most parent’s perceptions were that weighted blankets support their children’s sleep and engagement in activities as well as help their behaviour. The clinical audit supports previous research which has linked the use of weighted blankets to help individuals with heightened anxiety to calm.

The improved sleep reported within the audit is entirely the parent’s perception, which may be related to the child appearing to be calmer around bedtime. Unfortunately, parent report of their child’s sleep in isolation of any objective measure cannot provide conclusive data.

No demographic or diagnostic information was collected via the survey therefore no relationships or correlations can be deduced from the data. Despite the children having had an assessment of their sensory processing this data was not used as part of this audit to link their patterns of sensory responses and sleep to the effects of using a weighted blanket.

**Future recommendations**

There is a plan for the survey to be used as standard as part of the review process for weighted blankets, which will provide further data on their use and efficacy. Further information regarding the child’s diagnoses, patterns of sensory integration challenges and the efficacy of a weighted blanket would be helpful in re-defining the guidelines for the recommendation of a weighted blanket. Analysis of sensory processing, sleep patterns and the efficacy of a weighted blanket would be a useful clinical audit for the future. Additional measures of anxiety may also be a useful tool in exploring the use of weighted blankets.

Please note, if weighted blankets are recommended as an intervention it is essential that published guidelines are used and adhered to. If asked about their use, clinicians have a responsibility to communicate the results of published research regarding their efficacy.

**References**

Ayres J (1979) Sensory Integration and Learning Disorders. Western Psychological Services, Los Angeles


What difference can Sensory Integration make to a teenage boy?

by By Clare Omoyele

Clare has spent the past 4 years working as Occupational Therapist Specialist Practitioner in a secure child and adolescent mental health unit developing a special interest in Sensory Integration, completing sensory integration training level 1, 2 and 3.

Who is MARK?

Mark (pseudonym) is a 15 year old boy, currently in a forensic mental health unit, with difficulties regulating his emotions and behaviour. At times, Mark has harmed himself. In addition to Mark’s mental health diagnosis he has difficulties processing sensory information, thus affecting his ability to carry out day-to-day activities; such as making himself a snack, being able to remain seated and concentrate in class, picking up small items, using a knife and fork, and keeping up with his peers when riding a scooter or BMX. These difficulties have a negative impact on Mark’s mental health reducing his self-confidence, self-esteem, as well as making him feel different from his peers.

What are Mark’s difficulties?

Mark was assessed using clinical observations, the Adult/Adolescent Sensory Profile (Brown, C and Dunn W. 2002) and Blanches Structured Clinical Observations (Blanche, E. 2010). These assessments show that Mark has difficulties with ‘modulating’ sensory information. This is the ability to regulate and control the sensory input his brain receives. Mark is ‘sensory sensitive’ and ‘sensory avoiding’, meaning that Mark can become overloaded by levels of sensory input that most people would consider normal. This overload of sensory information means Mark spends most of his day in a high state of arousal, where it is hard for him to concentrate, regulate his emotions and interact appropriately with others.

Mark also has difficulties processing tactile, vestibular and proprioceptive sensory input. These result in poor body scheme, awareness of his body in space and affect his ability to carry out and plan motor tasks (praxis). Mark describes this as ‘my brain has a blurry picture of my body and what it is doing’. Mark reports finding it difficult to carry his
plate from the table, and navigate walking without tripping over. Mark often stands very close to people, or touches the walls and objects when moving around in order to help him know where his body is in space.

As well as the sensory assessment, Mark completed an Assessment of Motor and Process Skills (AMPS) which showed Mark had significant difficulties in both motor and processing skills by demonstrating increased clumsiness, decreased efficiency, and/or physical effort when performing familiar Activities of Daily living (ADL). This is caused by his sensory processing difficulties.

What we did?
To help Mark with his sensory processing difficulties Mark completed the Alert program (Williams, M S and Sheelenberger, S. 1994) and the Occupational Therapist developed a Sensory diet (Wilbarger, J and Wilbarger, P. 2002) of specialised strategies to help him manage his sensory difficulties day to day.

In addition Mark went to a specially designed Sensory Integration suite, which provided a sensory rich environment including suspended equipments, for 6 weeks, attending a total of 9 sessions. Mark set the following functional (distal) goals for the sessions:

- To be able to ride his scooter and BMX bike.
- To improve his handwriting.
- To have better coordination to be able to carry things and cook easier.

The following Proximal GAS (Goal Attainment Scale) Goals were set based on performance components to help Mark meet his distal goals.

1. Mark to be able to stand, holding onto handles on the platform swing whilst self-propelling in a linear motion.
2. Mark to be able to sit on and swing moving in a linear way, whilst throwing objects at a static target.
3. Mark to be able to plan the activities for the session, setting up an obstacle course without prompting.

How it helped?
This graph shows the improvement Mark made towards his goals during each of the sessions:

Key:

- Much more than expected = 5
- Somewhat less than expected = 2
- Somewhat more than expected = 4
- Expected level = 3

- Much less than expected = 1
<table>
<thead>
<tr>
<th>Performance area</th>
<th>Quality of performance at start of sessions</th>
<th>Quality of performance at end of sessions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sitting on platform swing (core stability)</td>
<td>Mark sat crossed leg on platform swing, propping with his knees against the ropes and moving by pulling on ropes.</td>
<td>Standing on the platform swing, self-propelling whilst throwing and catching.</td>
</tr>
<tr>
<td>Lying on platform swing (hard surface) (prone extension)</td>
<td>Lay flat on his back, fully supported by the platform swing.</td>
<td>Laying in prone across the swing (partially supported), head up and using hands bilaterally to work on fine motor tasks.</td>
</tr>
<tr>
<td>Throw and Catch (hand/eye coordination and bilateral coordination)</td>
<td>Catching a small gym ball, standing on a stable surface.</td>
<td>Throwing and catching a small ball whilst standing on the platform swing and self-propelling.</td>
</tr>
<tr>
<td>Setting Challenges/Tasks (planning of novel tasks)</td>
<td>Not having any involvement in the planning of the tasks.</td>
<td>Coming up with challenges for the climbing wall.</td>
</tr>
<tr>
<td>Sitting on beanbag swing (core stability)</td>
<td>Sitting on the beanbag swing with little/no control over movement of the swing.</td>
<td>Controlling the circular movement of the swing using his feet on the floor and by self-propelling, whilst kicking a football thrown at him.</td>
</tr>
<tr>
<td>Prone position across bean bag swing (soft surface) (prone extension, core stability, fine motor skills and calibration of force).</td>
<td>Mark struggling to get himself onto the bean bag swing in a prone position.</td>
<td>Whilst in prone on the swing, using hands to control and guide movements to collect small objects and return to central container.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>AMPS Motor Score</th>
<th>AMPS Process Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to Treatment</td>
<td>-0.40</td>
<td>-0.40</td>
</tr>
<tr>
<td>After treatment sessions.</td>
<td>0.04</td>
<td>0.34</td>
</tr>
</tbody>
</table>

This table compares the result of the AMPS assessment completed prior to beginning intervention and at the end of the intervention period. There was a noted improvement in both his motor and process skills, but only the improvement in process skills is considered clinically significant.
Mark says that ‘he enjoyed the sessions’ and is always motivated to go to the sessions. Mark also reported that when doing the session he noticed that ‘he touched things less’ and his ‘walking is better’.

Observationally, there has been an improvement made in Mark’s ability to self-regulate, and is better managing his emotions. The increased awareness of his sensory needs has helped him manage stressful times, such as in education more successfully, with Mark spending longer in sessions and concentrating more. As the AMPS score shows, Mark was carrying out daily ADL tasks such as making a snack with less clumsiness, this was observed and noted during cooking sessions.

Working with a sensory integration frame of reference has helped Mark with his sensory processing difficulties, and although the improvements are small, they are clear to see even after a short period of intervention.

Parents Comments
The sensory integration program that Mark (pseudonym) took part in has highlighted the difficulties he has had over the last 15 years and we are pleased these have been noted as significant issues for him. Singularly they may seem insignificant, but put all together they have clearly had a huge impact on his mental and physical functioning.

To us, as parents, the sensory issues he has had explains a great deal of his behaviours, particularly those surrounding him not being able to regulate his emotions, his low self-esteem and his apparent clumsiness.

We now have a greater understanding of how he sees the world around him and how his high state of arousal significantly impacts on him being able to do what would appear to be normal day to day activities. We now realise he cannot manage in situations where he is overloaded with sensory input and can adjust our way of living accordingly to help him cope in a more appropriate and socially acceptable way.

The program also gives us an insight as to why he has struggled with friendships with his peers over the years and how his lack of concentration has severely impacted on his education.

We can see there has been a slight improvement in his ability to regulate his emotions, particularly when he is in crowded places or in stressful situations, he certainly does not appear to be quite as clumsy around the home and he does not seem to unnecessarily touch items in shops or be as physical with people in his family quite as much as he used to be.

We hope that with more sensory integration treatment, a better understanding of his own difficulties and maturity will help him to manage his emotions and behaviour, raise his self-esteem and promote more self confidence in the future in tackling tasks that seem impossible for him at present.

Mark’s parents
6th January 2015

References


Research update

Click on the links to read the abstracts of the following articles which Gemma Cartwright, Director of Researcher Development, has highlighted as being of interest.

**Autism**

Sensory Integration and Praxis Patterns in Children With Autism
Susanne Smith Roley; Zoe Mailloux; L. Diane Parham; Roseann C. Schaaf; Christianne Joy Lane; Sharon Cermak

American Journal of Occupational Therapy, January/February 2015 Vol: 69, Issue 1

Sleep problems in children with autism spectrum disorder: examining the contributions of sensory over-responsivity and anxiety
Micah O. Mazureka, Gregory Petroski

The role of physiological arousal in the management of challenging behaviours in individuals with autistic spectrum disorders
Andrew McDonnell, Michael McCreadie, Richard Mills, Roy Deveaud, Regine Nkere, Judy Hayden

Research in Developmental Disabilities Volume 36, January 2015, Pages 311–322

Hyper-responsiveness to touch mediates social dysfunction in adults with autism spectrum disorders
Lars-Olov Lundqvist

Research in Autism Spectrum Disorders Volume 9, January 2015, Pages 13–20

Autism, oxytocin and interoception
E. Quattrocki, Kari Friston

Neuroscience and Biobehavioral Reviews 47 (2014) 410–43

The Interplay Between Sensory Processing Abnormalities, Intolerance of Uncertainty, Anxiety and Restricted and Repetitive Behaviours in Autism Spectrum Disorder
Sarah Wigham, Jacqui Rodgers, Mikle South, Helen McConachie, Mark Freeston

Journal of Autism and Developmental Disorders September 2014 Date: 27 Sep 2014

Classification of Children With Autism Spectrum Disorder by Sensory Subtype: A Case for Sensory-Based Phenotypes
Lane, A. E., Molloy, C. A. and Bishop, S. L. (2014)


The effectiveness of auditory stimulation in children with autism spectrum disorders: A case–control study
Gee B, Thompson K, Pierce A, Toupin M, Holst J

International Journal of Therapy and Rehabilitation 2015 22:1 , 36-46

**SI & Diverse Populations**

Is the relationship between sensory-processing sensitivity and negative affect mediated by emotional regulation?
Australian Journal of Psychology published online: 5 JAN 2015 DOI: 10.1111/ajpy.12084

Kimberley Brindle, Richard Moulding, Kaitlyn Bakker & Maja Nedeljkovic

Balance function and sensory integration after mild traumatic brain injury
Li-Fong Lin, Tsan-Hon Liou, Chaur-Jong Hu, Hon-Ping Ma, Ju-Chi Ou, Yung-Hsiao Chiang, Wen-Ta Chiu, Shin-Han Tsai, Woei-Chyn Chu

Brain Injury 0 0:0, 1-6

Stereotyped and self-injurious behavior in children with developmental disorders
Chukhutova G.L.


**Neuroscience**

White matter correlates of sensory processing in autism spectrum disorders
Jennifer R. Prywellera, Kimberly B. Schauderb, Adam W. Andersonc, d, e, Jessica L. Heacockf, Jennifer H.
Motor development and sensory processing: A comparative study between preterm and term infants
Jennifer R. Prywellera,Kimberly B. Schauderb,Adam W. Anderson,c, d, e, Jessica L. Heacockf, Jennifer H. Foss-Feiggc,Cassandra R. Newsom, f, h, i, Whitney A. Lorrng, h, i, Carlissa J. Casciof

Research in Developmental Disabilities, Volume 36, January 2015, Pages 102–107

Dyslexia and the Integration of Sensory Cues into Motor Action
Psychology, 2014, 5, 1870-1878
José A. Barela1,2, Paulo Barbosa de Freitas1, André Rocha Viana3, Milena Razuk1

Comparing the executive attention of adult females with ADHD to that of females with sensory modulation disorder (SMD) under aversive and non-aversive auditory conditions
Tal Mazor-Karsenty, Shula Parush, Yoram Bonneh, Lilach Shalev

Research in Developmental Disabilities, Volume 37, Issue null, Pages 17-30

Sensory processing, participation, and recovery in adults with serious mental illnesses.
Pfeiffer, Beth; Brusilovskiy, Eugene; Bauer, Julie; Salzer, Mark S.


Neuro-motor deficits in six-to eight-year old learners with ADHD and DAMP
Du Toit, Yolandie,  Pienaar, Anita

South African Journal for Research in Sport, Physical Education and Recreation Vol 31 Issue Number Issue 3 Pages 61-74

Sensory Processing Disorder in Children Ages Birth–3 Years Born Prematurely: A Systematic Review
Anita Witt Mitchell; Elizabeth M. Moore; Emily J. Roberts; Kristen W. Hachtel; Melissa S. Brown

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Postural control and sensory information integration abilities of boys with two subtypes of attention deficit hyperactivity disorder: a case-control study.
Ren Y1, Yu L2, Yang L1, Cheng J1, Feng L3, Wang Y4.


Effectsof Yoga on Patients in an Adolescent Mental Health Hospital and the Relationship Between Those Effects and the Patients’ Sensory-Processing Patterns.


The effects of sensory integration therapy on verbal expression and engagement in children with autism
Janet Preis, Meaghan McKenna

International Journal of Therapy and Rehabilitation | Vol 21 | No 10 | October 2014 | pp 476–486

Conducting robust intervention trials to address the sensory needs of children with autism spectrum disorder: design challenges in an Australian context
Weeks, Scott; Grimmer, Karen; Boshoff, Kobie; Stewart, Hugh

The British Journal of Occupational Therapy, Volume 77, Number 10, October 2014, pp. 533–535(3)

Teaching Children Self-Regulation Skills within the Early Childhood Education Environment: A Feasibility Study
Angela Labrie Blackwell , Danielle C. Yeager , Lisa Mische-Lawson PhD, Ryan J. Bird , Donna Marie Cook

Journal of Occupational Therapy, Schools, & Early Intervention Volume 7, Issue 3-4, 2014

A systematic review of sensory-based treatments for children with disabilities
Erin E. Bartona, Brian Reichowb, d, Alana Schnitza, Isaac C. Smith. Daniel Sherlocka

Research in Developmental Disabilities Volume 37, February 2015, Pages 64–80
The National Autistic Society Professionals Conference 2015

The National Autistic Society (NAS) Professionals Conference in Harrogate on the 3rd and 4th of March 2015 was a heady mix of research, best practice and innovation. What was striking since the first NAS Professionals Conference SI Network attended in 2010, was that now everyone knew more about sensory integration and sensory processing and the links to Autism.

The inclusion of sensory processing differences in the DSM V’s new diagnostic criteria for Autism Spectrum Conditions has clearly had a role to play in focusing people on the importance of sensory processing.

**Children with ASD characteristically display relative strengths in visuopraxis and difficulties with somatopraxis and vestibular functions, which appear to greatly affect participation (Roley et al. 2015).**

The audience that visited the SI Network stand had a broad range of questions about courses and training to support staff on how to address these differences, to questions about individual complex cases and wanting ways or ideas to make daily life easier; from washing and dressing, to meal choices, to attendance and participation at school, college and in work activity.

OT’s Simon Curtis and Navas Noordeen, who have both recently completed Module SI 2/3 were on hand to help answer questions and discuss sensory integration and its application across the lifespan with people with autism.

Navaz hails from India, where his journey and passion for sensory integration started. He now works in London with adults with learning disabilities. He has recently joined the SI Network Conference and Events team and is working to ensure our SI Network stands at events and conferences run smoothly.

**Young people with ASD demonstrated a different pattern of parasympathetic activity during sensory stimulation (Schaaf et al. 2015).**

Simon is currently doing the Sensory Attachment Intervention course, and is interested in the links between early attachment, sensory integration and a person’s ability to engage in therapy. He currently works for the Reach: Neurodisability service, part of The Dame Hannah Rogers Trust in South Devon, and is working with the project team exploring supporting resources for SI2/3.

Kath Smith, SI Network Director of Learning and Development, presented a 35 minute talk on Autism and Sensory Processing – updating the delegates about recent research about SI while sharing a case study to illustrate the impact sensory processing can have on everyday life, exploring the evidence for strategies that can be helpful at home and school.
Talking about tactile defensiveness

"A very user friendly book written by a mum and primary school teacher, following her experiences with her daughter. Each page has a photo and a little information, as well as a fill in space to explore thoughts, feelings and ideas. The book, written in a child’s voice, talks about how it feels to have tactile defensiveness and activities that can help. This is a lovely book for parents and children to share.

I would recommend this book to parents, and even teachers, of nursery and young primary school aged children. It will help understanding, communication and problem solving in everyday life”.

Sue Allen
Occupational Therapist

Available at our online shop: 

£9.99